Abstract

Cells of *Navicula teneroides* Hustedt were cultivated in Petri dishes for some months. Some valves were carrying semiconical membranous covers at one or both poles of the valve interior. The shadow of the cover was vaguely seen by transmission electron microscope. The cover was clearly seen by scanning electron microscope. The existence of those covers may be peculiar to this diatom at present. Some type-specimens of it mounted by Hustedt himself offer similar shadows in the light microscopic photographs.

Key index words
benthic diatom, *Navicula teneroides*, internal semiconical covers, shadows of the covers, siliceous membrane.