

sand filled with tiny shell fragments is uncemented, but, in most places, it is cemented and in certain places very firmly. The shell fragments cannot be distinguished in some of the layers, as the lime has been removed and reprecipitated. Sharks' teeth, *Pectens*, *Echinoid* spines, *Bryozoa*, *Scutella*, and *Ostrea* were found. *Bryozoa* and *Ostrea* are especially abundant. The material bears some resemblance to the Eocene at Wilmington, though it is at present referred provisionally to the Trent formation.

The fragmental shell rock shows cross-bedding, with the laminae dipping rather steeply downstream.

SECTION RIGHT BANK OF NEUSE RIVER, 17½ MILES BELOW KINSTON.

<i>Pleistocene:</i>		FEET. INCHES.
Pleistocene sand and loam not well exposed.....		8-12
<i>Eocene</i> (Trent) :		
Black laminated clay, weathering white on exposure.....		7-12
Pebble band consisting of black pebbles and containing fragments of sharks' teeth, <i>Belemnitella</i> , <i>Gryphea</i> , and <i>Exogyra</i> , which have been derived from the Cretaceous.....		8
<i>Cretaceous</i> (Peedee) :		
Glaucinitic sandy clay containing many fossils exposed to within 3 feet of water, where it is hidden from view....		11

The unconformity between the Eocene and the Cretaceous is well shown in this locality. At one place the basal stratum of the Eocene is 14 feet above water. It inclines to the north to the water's edge, then rises and remains about 7 feet above water for a considerable distance.

SECTION NEUSE RIVER, 6½ MILES BELOW KINSTON.

<i>Pleistocene:</i>		FEET. INCHES.
Disturbed Pleistocene clay.....		2½-3
Drab shaly clay, no fossils.....		1½
<i>Eocene</i> (Trent) :		
Band of black water-worn pebbles, some of the pebbles fossiliferous, some crystalline, in matrix of gray sand.....		8
<i>Cretaceous</i> (Peedee) :		
Micaceous, greenish-black argillaceous sand.....		7

The Eocene material contains some concretions of very hard cemented quartz sand, both black and white, containing some small shells. The black pebbles seem to be phosphatic. Among them were recognized a few greatly worn sharks' teeth and small pieces of bone.

Broadhursts Bridge, Neuse River, 82 1-4 Miles Above New Bern.—Eocene limestone appears on right bank of stream on both sides of the bridge. It can be seen rising about 4 feet above the water in one place.