

At one place in the quarry a strong spring of water issues from a cavity in the conglomerate rock. A striking feature of the quarry section is the manner in which the later materials have been deposited upon the uneven surface of the Eocene, each layer being thicker above the Eocene depression, and thinner above the Eocene elevations. In this manner the surface of each successive layer becomes more nearly level. The present surface is quite level.

The decayed Eocene limestone and the solid limestone contain some grains of glauconite.

Cretaceous strata have been exposed beneath the Eocene conglomerate, though not visible at the present time.

This locality has received considerable attention by several investigators in the past on account of the mingling of the Cretaceous and Eocene forms in the basal layers. The Cretaceous forms, in the main, show evidence of being water-worn, though some are in almost perfect condition and seem to have been redeposited without having undergone much change.

The rock from this quarry has been extensively used on the roads about Wilmington and makes a very hard, firm roadbed.

#### SECTION AT WILMINGTON, CITY ROCK QUARRY, LOCATED ON SMITH CREEK.

| <i>Pleistocene:</i>                                                                                                                         |   | FEET. INCHES. |
|---------------------------------------------------------------------------------------------------------------------------------------------|---|---------------|
| Sandy soil .....                                                                                                                            |   | 4-8           |
| <i>Miocene:</i>                                                                                                                             |   |               |
| Thin, isolated patches of Miocene shell marl in depressions in irregular eroded surface of the Eocene. The maximum thickness observed ..... |   | 10            |
| <i>Eocene (Castle Hayne):</i>                                                                                                               |   |               |
| Calcareous marl full of holes of solution which are filled with clay. In some places the marl is quite firmly cemented .....                |   | 6-8           |
| Fragmental shell rock, few entire shells found. Upper part cemented to form hard rock; lower, loose.....                                    | 3 | 6             |
| Pebble layer with water-worn black pebbles firmly cemented. Contains many sharks' teeth.....                                                |   | 3-4           |

The following section shows the character of the materials passed through in sinking the well of the ice company owned by W. E. Worth & Co.

#### SECTION AT WILMINGTON, N. C., WELL OF ICE COMPANY, OWNED BY W. E. WORTH & CO.

| <i>Pleistocene:</i>         |  | FEET. |
|-----------------------------|--|-------|
| Sand .....                  |  | 20    |
| <i>Miocene (Yorktown?):</i> |  |       |
| Not recognized.             |  |       |