

the lower cement bed. A good view of the falls is given by Darton¹ in his report on the Geology of Ulster county. At High Falls the thin layer above referred to contains unmistakable Decker Ferry species, the most characteristic of which is *Monotrypa corrugata* Weller. The fauna obtained follows:

- | | |
|--|--|
| 1 <i>Favosites</i> <i>sp.</i> | 5 <i>Orbiculoidea</i> <i>cf. tenuilamellata</i>
<i>Hall</i> |
| 2 <i>Monotrypa corrugata</i> <i>Weller</i> | 6 <i>Orthoceras</i> <i>sp. undet.</i> |
| 3 <i>Atrypa reticularis</i> <i>Linné</i> | |
| 4 <i>Pterinea emacerata</i> <i>Conrad</i> | |

The study of the sections at High Falls and Accord and a comparison of them with the sections farther south indicate quite clearly that the lower cement bed at Rosendale and the lower cement bed and Wilbur limestone at High Falls are of the same age as the Decker Ferry formation as developed to the southwest of these localities. It is also believed that the cement bed which holds the stratigraphic position of the Bertie waterlime of western New York is of the same relative age as the latter, both underlying the Cobleskill limestone. In western New York the Bertie limestone is characterized by an *Eurypterus* fauna. The absence of *Eurypterus* from the formation in eastern New York is attributed to the fact that this section of the State belonged to another sea-province. We therefore propose to meet this difference in the east by introducing for the lower cement bed in Ulster and adjoining counties the term Rosendale cement. The transition to the Cobleskill from the underlying fossiliferous beds in eastern New York has been shown. In western New York the transitional features are somewhat more complex and obscure. Still enough is known to show an intimate relationship between the Cobleskill and Bertie formations.

In the *Eurypterus*-bearing waterlime beds of western New York (Bertie) Cobleskill fossils are rarely found associated with *Eurypterus*. However *Orthothetes interstriatus* Hall and *Leperditia scalaris* Jones are occasionally found on the same slab with *Eurypterus*. In beds which are strictly referable to the Cobleskill and which contain Cobleskill fossils the writer has never found an *Eurypterus*. The condi-

¹N. Y. State Geol. 13th An. Rep't. 1894. pl. 10 facing p.342.