

<i>Cretaceous</i> (Patuxent formation) :	FEET.
Coarse, cross-bedded, argillaceous, arkosic, varicolored sand, with subordinate clay lenses, and in places numerous rolled clay balls	10-20

THE QUATERNARY FORMATIONS.

BY L. W. STEPHENSON.

HISTORICAL REVIEW.

The surficial deposits of the Coastal Plain of North Carolina received but little systematic study prior to the investigations of B. L. Johnson in 1907. Such progress as was made towards the determination of their age, their origin, and the proper basis for their classification cannot be credited to any considerable extent to original investigations within the State. The classic contributions treating of this class of deposits have been made with particular reference to their occurrence in the Coastal Plain States to the north of North Carolina or in the Gulf Coastal Plain States, with only occasional descriptions of or discussions of their extension or supposed extension into or through North Carolina.

It is not our purpose to give an account of all the contributions which have either directly or indirectly tended to further this progress, for that would involve a complete historical treatment of the subject as it relates to the whole Coastal Plain. Only the more important contributions treating of these deposits in North Carolina or in the Atlantic Coastal Plain, including North Carolina, will be referred to in this review.

The first attempt at classification which included North Carolina in its scope was that of William Maclure¹ in 1809. All the Coastal Plain deposits are regarded as belonging to one division, which he calls the "Alluvium," and which he subdivides as follows:

- 1. Peat,
- 2. Sand and gravel,
- 3. Loam,
- 4. Bog iron-ore,
- 5. Nagel-fluh,
- 6. Calc-tuff,
- 7. Calc-sinter.

¹Trans. Amer. Phil. Soc., vol. 6, 1809, pp. 411-428; Jour. de Phys., 69, 1809, pp. 204-213.