

groups, called the upper, middle, and lower, separated by clay or marl deposits.

The upper part of the Connecticut River sandstone, is probably of Jurassic age, as well as the long belt of Mesozoic rocks, or a part of them, along the Atlantic slope of the Appalachians. The fine coal-field near Richmond, Virginia, is also Jurassic. The Oolite in England, contains a large number of reptilian remains: and in this country the Connecticut River sandstone contains the remarkable fossil footmarks or *ichnites*.

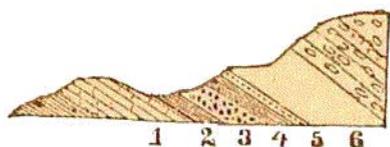
Wealden Formation.—This formation embraces, 1. *The Weald Clay*; 2. *Hastings Sand*; 3. *Purbeck Strata*. They were first described in the Southeast of England, chiefly in the *wealds* or woods of Sussex and Kent, and are composed of beds of limestone, conglomerate, sandstone, and clay, which abound in the remains of fresh water and terrestrial animals, and appear to have been deposited in an estuary that once occupied that part of England. Similar beds occur in Scotland, and in a few places on the European Continent. Some place the Wealden under the cretaceous formation, as below.

3. Cretaceous Series.

In Europe and Asia, this series is usually characterized by the presence of chalk in the upper part, and sands and sandstones in the lower. In North America the chalk is wanting.

Fig. 56 represents the succession of strata at Lulworth Cove in England, and their connection with the Wealden formation.

Fig. 56.



Section of the English Cretaceous.

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| 1. Hastings sand, | } Wealden. |
| 2. Purbeck strata, | |
| 3. Lower greensand, | } Greensand, |
| 4. Gault, | |
| 5. Upper greensand, | |
| 6. Marly and lower, | } Chalk. |
| 7. Upper, | |

Section of the Cretaceous in Nebraska.

1. Yellowish sandstone.
2. Dark gray clay.
3. Lead gray marl.
4. Bluish plastic clay.
5. Arenaceous clays.

Section of the Cretaceous in New Jersey.

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| Nos. 4 and 5 of Nebraska section. | { | 1. Fine clay and Potters clay. |
| | | 2. Dark-colored clay. |
| | | 3. " with greensand. |
| | | 4. Greensand, 1st. or lower bed. |
| | | 5. Ferruginous sand. |
| | | 6. Greensand, 2d. bed. |
| | | 7. Quartzose sand. |
| | | 8. Greensand, 3d. or upper bed. |

The principal cretaceous formations in the United States are in New Jersey and in the Southwestern and Western Territories. The latter deposits cover many thousand square miles. We have given above sections of these two