

TABLE SHEWING THE ROCK FORMATIONS ABOUT OTTAWA CITY, IN THEIR NATURAL ORDER.

| SYSTEM.                        | FORMATION.                                                      | CHARACTER OF STRATA.                                                                                                                                       | FOSSILS.                                                                                                                                                                                                                                                           | THICKNESS.                                    |
|--------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
|                                | Alluvium, shell-marl, fine water sands, lake and river gravels. | River and lake alluvium, sands and clays, shell-marl (white clays), ancient low beaches, stratified gravels.                                               | Recent fresh water shells, plants and other organic forms. Pre-historic remains of Aborigines, along with <i>Castor fiber</i> , <i>Arctodus virginianus</i> , <i>Lamprolaima</i> , &c., &c.                                                                        | Varies from 0 to 50 feet in different places. |
| POST-TERTIARY                  | Saxiava Sand (marine)                                           | Marine sands.                                                                                                                                              | <i>Saxiava rugosa</i> L. <i>Nautes affinis</i> , Gmel.                                                                                                                                                                                                             | Varies from 0 to 6 feet and more.             |
|                                | Leda clay (marine)                                              | Chiefly stiff blue clay, with occasional nodules, boulders and sandy portions.                                                                             | <i>Leda</i> (Portlandia) oretica, Gray. <i>Phacops</i> , <i>Gracilodonta</i> , and <i>Malcolus villosus</i> C. insects, star-fishes, foraminifera, &c.                                                                                                             | Varies from 0 to 120 feet and more.           |
|                                | Boulder clay                                                    | "Till," moraine profonde, glacial deposits.                                                                                                                | No fossils discovered.                                                                                                                                                                                                                                             | Varies from 0 to 30 feet.                     |
|                                | Hudson River                                                    | Buff-weathering calcareo-arenaceous shales and limestones                                                                                                  | <i>Zygospira</i> <i>Headi</i> , B. <i>Ambonachia</i> <i>radiata</i> , H. <i>Critolite</i> <i>ornata</i> , Con. <i>Modiolopsis pholidiformis</i> , H.                                                                                                               | About 20 feet (known), probably thicker.      |
|                                | Utica                                                           | Black and brittle bituminous shales and limestones                                                                                                         | <i>Lentocraptus</i> <i>fincoius</i> , H. <i>Orthoceras</i> <i>quadrifurcatus</i> , <i>Siphonotrocha</i> , <i>Scolecites</i> , Dav. <i>Triarthrus</i> <i>spinuosus</i> , B. <i>Asaphus</i> <i>Canadensis</i> C., &c., &c.                                           | From 60 to 75 feet.                           |
|                                | Trenton                                                         | Nodular and evenly bedded for the most part light-coloured limestones, with occasional shaly measures, in part bituminous.                                 | <i>Prasopora</i> <i>Selwyni</i> , N. <i>Glyptocrinus</i> <i>ramulosus</i> , B. <i>Pleurocyathites</i> <i>squamosus</i> , B. <i>Anazyga</i> <i>recurvirostra</i> , H. <i>Murchisonia</i> <i>bellioincta</i> , H.; <i>Asaphus</i> <i>platycarpus</i> , &c., &c., &c. | Between 400 and 500 feet.                     |
| CAMBRO-SILURIAN or ORDOVICIAN. | Bird's Eye and Black River.                                     | Hard, compact, impure fossiliferous limestones.                                                                                                            | <i>Tetradium</i> <i>horatium</i> , St. <i>Columnaria</i> <i>bellioincta</i> , &c., &c. <i>Scaphites</i> <i>anceps</i> , H.; <i>Bathyrus</i> <i>gambroensis</i> , &c., &c.                                                                                          | About 200 feet.                               |
|                                | Chazy                                                           | Limestones (cement-rock).                                                                                                                                  | <i>Lepidodictia</i> <i>Canadensis</i> , Jones. <i>Cryptozoon</i> (?) <i>Orthoceras</i> sp.                                                                                                                                                                         | 20                                            |
|                                | Calceiferous                                                    | Shales.                                                                                                                                                    | <i>Lingula</i> <i>bellii</i> , B. <i>Modiolopsis</i> <i>parviuscula</i> , B.                                                                                                                                                                                       | 200 feet.                                     |
|                                | Potsdam                                                         | Sandstones and sandy shales.                                                                                                                               | <i>Orthidictya</i> <i>imperator</i> , B.; <i>Asaphus</i> <i>canalis</i> , B. <i>Ophileta</i> <i>compacta</i> , S. <i>Murchisonia</i> <i>Anna</i> , B. <i>Lituites</i> <i>Apollo</i> , B. <i>Orthoceras</i> <i>Lamarcki</i> , B.                                    | 250 to 400 feet.                              |
|                                | Laurentian (Lower) of Logan.                                    | Sandstones and sandstone conglomerates.                                                                                                                    | <i>Ophileta</i> <i>compacta</i> , S.; <i>Orthoceras</i> sp. <i>Scolithus</i> <i>Canadensis</i> , B. <i>Climactichnites</i> , &c., &c.                                                                                                                              | About 200 feet.                               |
| LAURENTIAN or ARCHÆAN.         |                                                                 | Granitoid gneisses, pegmatite, dioritic, crystalline limestones (newer), &c., with apatite, graphite, iron ores, garnet, jasper, salom. barytes, gold, &c. | <i>Eozoon Canadense</i> (Dawson.) (In limestones)                                                                                                                                                                                                                  | 16,000 feet, according to Logan.              |