

the position and trend of these markings, we learn that the massive ice of the great Highland area came down into Strathmore and kept steadily southward in such force as to mount over the chain of the Sidlaw and Ochil Hills, and to have been massive enough to envelop and bury the Pentland Hills, for striæ have been found on the top of Allermuir Hill, at the north end of that chain, at a height of 1617 feet above the sea. Hence the stream of ice that passed eastwards across the Lothians must have been a good deal more than 1600 feet thick. It has left its mark on every prominent hill and crag in the district. Some excellent examples of ice-striæ may be seen on the side of the Queen's Drive round Arthur's Seat, just above the crag of Samson's Ribs, where the ice has forced itself through a narrow gully on the south side of the hill. The north side of North Berwick Law retains some remarkably fresh ice-groovings which show that hill to have been enveloped and ground down by the ice in its eastward progress. Farther west a huge body of ice descended from the north into the basin of the Clyde, filling the firth, overriding the hills on either side, and passing across the site of Renfrewshire and the north of Ayrshire and Lanarkshire until it met the ice that was streaming northward from the Southern Uplands into the plains of Ayrshire, whence the united glacier turned southward into St. Patrick's Channel, and spread out over the basin of the Irish Sea. The general trend of the various branches of the ice-sheet, in their course across the Lowlands, will be most intelligibly followed by an examination of the accompanying Map of the Glaciation of Scotland. The reader can there trace the march of the different ice-streams that poured into the Midland Valley and, uniting their mass, moved eastward and westward into the sea. With so vast a thickness of ice creep-