

hundreds of years till all the land was buried in snow to a depth of from one to three thousand feet, which extended from the Arctic regions almost to the Gulf of Mexico. This mass of snow by pressure became solid ice and rested on a slightly inclined surface which slanted toward the sea-level. Under those conditions the glacier did not remain at rest but slowly crept seaward at the rate of a few inches in a day.

This frowning ice-front was pushed far out into the ocean, where its tendency to float broke it up along lines of fracture, and from it drifted icebergs that were carried by deep currents into warmer waters, just as the Greenland glaciers are now shedding all the great fleets of icebergs which become a terror to mariners crossing the Atlantic Ocean.

Under this enormous weight and with this resistless movement the underlying bedrock was more or less, on the surface, crushed into fragments and ground into gravel, sand and clay. Projecting ledges were smoothed, scratched and grooved and in that condition remain to the present time all over the northerly portion of the northern hemisphere.

About ten miles to the northward of Pinehurst the bedrock is all granite, and at that point or region the glaciers seized the broken blocks of granite and carried them southward, many of them to the coast, but for the most part they were dropped along the way, but not as rough, angular blocks, but as rounded and smoothed boulders such as we see them far too plentiful over all this district. They were never rounded and smoothed while in the grasp of the ice that transported them here. Nothing but strong, fast-running water was equal to this work.

During the latter part of this glacial epoch, lasting for centuries, the land was overflowed with water from the melted ice that swept seaward, carrying with it ice cakes, gravel and sand, rolling the granite blocks here and there like pebbles and finally leaving them buried beneath the banks of rock, ruins which are now the hills of this country round about.