

rocks that through various processes have been decomposed into incoherent particles. Soils may be wholly residual, that is, they may consist of material derived from the decay of immediately underlying rocks; or they may consist of transported material or of a mixture of residual and transported material.

The level, hilly or mountainous character of the country is dependent on the nature of the rocks and on the processes of uplift, folding and erosion to which they have been subjected. Sedimentary rocks like sandstones and shales yield readily to the action of such destructive agents as variations of temperature, frost, rain, wind, running water and ice, and of chemical processes such as oxidation, hydration and carbonation. The harder rocks, on the other hand, such as quartzites, slates and granites, are more resistant; mountains composed of these are therefore more slowly subdued than are those composed of sandstones and shales.

Agricultural Regions.—The portion of Canada, the climatic conditions of which are favourable to agriculture, may be divided into five great regions:

1. The Laurentian plateau, consisting of the vast upland surrounding Hudson bay and underlain chiefly by igneous rocks, such as granite, together with a less amount of hardened sediments.

2. The Appalachian region, occupying the Maritime Provinces and eastern Quebec and underlain by folded sediments and igneous rocks.

3. The St. Lawrence lowlands of southern Quebec and southern Ontario, underlain by nearly horizontal sediments.

4. The Plain region of Manitoba, Saskatchewan and Alberta, underlain by flat-lying sediments.

5. The Cordilleran region, the mountainous region extending from the Rocky mountains to the Pacific coast and underlain by folded sediments and igneous rocks.

These five regions have all been exposed to weathering for a long time. The Laurentian plateau is the oldest land area of any great extent in Canada.

During the long ages that this Laurentian continent has been exposed, the area to the southeast, south and west has been submerged for long periods beneath the sea, and great thicknesses of sandstones, shales, and limestones have been laid down. These sediments have been elevated subsequently above sea level, certain sections such as southwestern Quebec, southern Ontario and the plains of Manitoba, Saskatchewan and Alberta rising so gently as to produce little disturbance of the rock strata; while in eastern Quebec, New Brunswick, Nova Scotia and British Columbia the strata have been folded and crushed into mountain ranges and intruded by igneous rocks.

The soils derived from these rocks by long subjection to decomposing agencies were greatly disturbed in recent times by glaciation. Nearly the whole of Canada was covered by ice, which in the southern