After referring briefly to the part which mountains play as elements in the earth's physiography (helping to determine climatic differences, the distribution of rain fall, the size and flow of rivers, the limitation of floral and faunal areas) beside directly affecting human affairs by their influence on national characteristics, on religion, poetry and art, on wars and commerce, and finally as being the chief source of mineral wealth, Dr. Bailey went on to give a comparative description of the three great mountain systems of America: the Laurentian, the Appalachian and the Cordilleran, or Rocky Mountain, systems.

Of these the Laurentian was described as being at the same time the oldest and the lowest, including the belt of broken land which, in the form of a gigantic V, stretches from Labrador to Ontario, and thence to the Arctic Sea, enclosing between its arms the depression of Hudson's Bay. It thus forms the backbone of this Canada of ours, and is especially interesting as being one of the earliest of the centres from which the continent began to grow, and as having been probably continuously above the ocean from the earliest times. Thus, through unnumbered ages, it has been the theatre of atmospheric denudation, and what we now see of it is but the remnant of what it once was. Indeed, a close study of its denuded folds and of the great faults or dislocations by which it has been affected, alike prove the extent of its degradation, and lead us to believe that originally the system may well have borne comparison with the loftiest of existing chains.

The Appalachian or Alleghany system was next referred to as stretching from Gaspe to the Carolinas, and forming the eastern wall of the continent. Though hardly so long as the Laurentian system, it embraces a far greater number of subordinate chains (such as the Shickshocks of Gaspe, the Notre Dame range of Quebec, the Green and White Mts. of New England, the Highlands of New York, the Blue Ridge of Virginia, etc.) and includes some much higher summits, such as Mt. Washington in New Hampshire. It is also more complex in structure, involving the results of many mountain-making movements, but not completing its history until after the deposition of the coal-beds, these (in Pennsylvania) being included in the folds and faults by which the region was raised into mountain form. Since that time its history, like that of the Laurentian, has been one of waste and removal.

Lastly we have the great Rocky Mountain system, better known as the Cordilleran system, for the Rockies proper form only one element in the system as a whole, the latter properly embracing all the high land lying between the region of the Great Plains and the Pacific coast. This region, nearly 1,000 miles in width, was somewhat minutely described as seen, first along the Union Pacific R. R., or 40th parallel, and secondly along the line of the C. P. R. In each case it was shown to embrace a number of approximately parallel chains, including basins or plateaus between, and each exhibiting features peculiar to itself. Thus, on the line of the 40th parallel, the eastern ranges, constituting the Rockies proper, were described as rising abruptly from the region of the Plains to heights of 10,000 to 14,000 feet; while upon their western side they look down, with almost equal abruptness, upon the Green River and Colorado Basins, the two being separated by the east and west chain of the Uintahs, and together making up what, from a geological point of view, has been well styled the Plateau Province. This name is suggested by the fact that everywhere around the borders of this relatively low and flat tract are found great masses of horizontal strata, arranged in steps or plateau, one above another, the descent from one to the other being often precipitous and hundreds or even thousands of feet in amount; while near the edge of the successive terraces are numerous outlying masses or buttes, which were evidently at one time continuous with the adjacent terraces, but have since been separated as the result of wear and removal. It was then shown that a similar removal of rock, to a thickness of nearly *two miles*, had taken place over an area of at least 100,000 square miles, the terraces or plateaus, representing successive formations of different ages and degrees of hardness, being only the remnants of what once covered the whole region. Further, in the centre of the basin, this process of erosion was described as finding still grander illustration in the great canon of the Colorado River, a profound trench cut by the river across the whole Plateau Province, and having a vertical depth, with nearly precipitous sides, from 2,000 to 6,000 feet. This canon was described as one of the greatest of nature's wonders and its history fully detailed, while increased interest was given to the descriptions by the exhibition of numerous plates and a large number of photographs taken by the various exploring expeditions sent out by the U. S. government. On the west the Plateau Province, embracing a large part of the State of Colorado, is again abruptly met and walled in by the lofty range of the Wahsatch Mts., separating the Colorado Basin from what, ever since Fremont's time, has been known as the "Great Basin." This is the flat, treeless and almost utterly desert tract, including the region around Great Salt Lake, which at one time proved such a barrier to the tide of westward emigration, and which is still uninhabitable except where, as at Salt Lake City, fertility has been partly restored by artificial irrigation. The waters of Great Salt Lake are so dense that the human body is sustained on them without exertion and becomes, after bathing, encrusted with salt. Several rivers, such as the Humboldt, Carson and Truckee, traverse portions of the desert, being fed by melting snows from the mountains, but, unlike most streams, become smaller as we recede from their sources and are finally swallowed up in "sinks." So lakes, many square miles in surface, sometimes appear after heavy rain fall, and vanish a few hours after the latter has ceased.