

sharply along its dorsal line to a depth of half its total height; followed by another belt of lowland eight or ten rods in width; and lastly a peculiarly irregular, low, broad ridge, which quickly terminates southward, and is bordered on the east by the present lake beach.

It seems probable from a study of this region and comparison with the park to the north, that the Administration Building stands on a continuation of one or more of the ridges just described, while the broad, low belt mentioned above has its continuance embracing that part of the park on which were located the dairy and stock barns, the Stock Pavilion, the Agricultural Building, the Court of Honor or Grand Basin, and part of Manufactures Building, together with the area covered by the South Pond. Presumably the ridge on which stands the Administration Building is one which extends northward, forming part of the Wooded Island, and, as the native oaks give evidence, extends past the site of the Turkish, *Costa Rica* and other foreign buildings, continuing along the east end of the north lagoon and Art Annex to the northeast corner of the park.

The presence of the large native oaks on a part of the Wooded Island shows the former existence of the dry, sandy soil of a ridge, while the absence of the trees in other parts becomes negative evidence that it is filled or artificial land, as the mud which was scooped out from the low places, forming the artistic lagoons, was piled along the margins to fill sinuses and level depressions.

The presence of a few large trees near the Government Building bespeaks a ridge, and the grading of the grounds indicates traces of the same, despite the gardener's skill. But whether here was a distinct ridge on which stands part of the Manufactures and the Government Buildings, and running over toward Victoria House, or whether it was only an outlier, or whether it was a ridge at all, is involved in uncertainty.

From the Convent La Rabida a ridge seems to take its origin, on which stands also the Krupp Gun Works, part of Shoe and Leather, thence extending southward along the east margin of South Pond and west of Anthropological Building, and continuing, as the ridge described as lying east of the wide belt of lowland south of the park. The ridge mentioned as adjacent to the present lake beach and very irregular in its outline and disappearing suddenly southward, just enters the park touching the Forestry Building.

Another distinct ridge crosses the northwest corner of the grounds, on which stands the California State Building, Washington, South Dakota, the Esquimaux Village and others. This soon disappears from the grounds to the westward, the oaks in Buffalo Bill's enclosure indicating its location upon the ridge. The lagoon or pond which extends into the Esquimaux Village is probably a natural sag or lagoon scooped out deeper, but it is impossible to determine, since the grading outside the park fence has destroyed all traces.

From these observations it is seen that the lagoons of Jackson Park—those objects of so much delight and pleasure to World's Fair visitors, those gem-stones of earth in a silver setting of water, which completed the indispensable features of the perfect landscape and gave the finishing touch of beauty to this fairy dreamland of nature and art—are the excavated marsh-belts which formed the lowlands between the oak-covered ridges above described, the deep muddy, marshy or water-covered places being made deeper and the excavated material being used to fill sinuses and depressions,—in fact, that these lagoons were a necessity in the reduction of a dismal desert waste to a perfect landscape garden; were formed because nothing else could be done with the water; in short, the process was but one of giving back to the sea her own, the low-

land belt becoming what it originally was before being filled by the processes of time—a lagoon.

We have not space to discuss the geological history of this region, but may say in closing that Lake Michigan has, at a not early time, geologically occupied many square miles of territory now embraced in part in the city of Chicago and vicinity—that a great region about the head of the lake is entitled to the Indians' appellation of "Chica-gow" or "Skunks' Nest," and that these ridges are beach-ridges successively piled up by the waves of the receding lake, and the marsh-belts are the filled and filling lagoons which are formed in such shore processes.

NOTES AND NEWS.

Two numbers of a new university publication upon geology have lately come to notice, reminding one in their form and general aspect of the bulletins of the Geological Society of America. The new publication is the Bulletin of the Department of Geology of the University of California. It is edited by Prof. Andrew C. Lawson. In the two parts of the first volume there are seventy-two pages and five plates. The articles are "The Geology of Carmelo Bay," by A. C. Lawson and J. de la C. Posada, and "The Soda-Rhyolite north of Berkeley," by Charles Palache. The new enterprise has a wide field open to it. Comparatively speaking, very little work has been done upon the geology of California, and the problems are numerous and important. Aside from the two quarto volumes upon the Geology of California, the work of the U. S. Geological Survey and the few early government expeditions, little has been done in the State. Many of the problems are so intricate that it is not to be expected that they will be solved in the short time given to them by government expeditions. The great extent of the State, and the vast variety of soils and geological formations found in it, will form fertile themes for discussion and investigation for many years to come. It is the intention of the university to issue the parts at intervals as material accumulates, and when a volume of 350 or 400 pages has been printed the subscription price of \$3.50 will be requested. Subscriptions can be sent to Prof. A. C. Lawson, University of California, Berkeley, California.

—G. P. Putnam's Sons will publish immediately the first volume of "Social England: a record of the progress of the people in religion, laws, learning, arts, science, literature, industry, commerce and manners, from the earliest times to the present date," edited by H. D. Traill, D. C. L. The work is to be completed in about six volumes, and the one about to be published presents the record from the earliest times to the accession of Edward I. They also announce Le Gallienne's "Religion of a Literary Man," "Wah-Kee-Nah, and Her People," a study of the customs, traditions and legends of the North American Indians, by James C. Strong, late Brevet Brigadier-General Reserve Corps, U. S. A.

—J. B. Lippincott Co. announce another of Robert S. Ball's popular books on astronomy, entitled "In the High Heavens," to be profusely illustrated by drawings in the text and full-page colored plates.

—The large and curious philological library of the late Prince Lucien Bonaparte is soon to come into the market. It numbers about 25,000 volumes. The Prince early determined to make a collection of works which would represent not only every written language in the world, but their connection one with another, and also their dialectal varieties; and he was able to a large extent to carry out this idea. His collection includes a specimen of every English dialect. His usual plan was to get the Gospel of St. Matthew or the Song of Solomon translated into the different dialects by experts.