

A STROLL ALONG THE BEACH OF LAKE MICHIGAN.

BY W. J. BEAL.

THE south-west extremity of Lake Michigan is surrounded by a low, sandy beach, back of which are low land and marshes. Let us take a stroll with our NATURALIST friends along the lake shore south of Chicago. In place of the rocks and sea-weeds, radiates, shells and crustacea of the Atlantic coast, here are only fragments of cork, chips, sticks, now and then a mutilated specimen of an *Unio*, or a few small, dead gasteropods, or their empty shells. Among the land plants we shall find more to interest us. The student from Salem (Mass.), or the coast of New Jersey, recognizes the Beach Pea (*Lathyrus maritimus*) which we believe is never found far from the salt water, except along our great inland lakes. Here also is the Sea-rocket (*Cakile Americana*), a radish-like plant, and the Shore Spurge (*Euphorbia polygonifolia*), growing in the loose barren sand, just as they do near the ocean. Of true marine grasses we find the Sea Sand-reed (*Calamagrostis arenaria*), the graceful Squirrel-tail Grass (*Hordeum jubatum*), and the pest of barefooted boys called Bur-grass or Sand Bur (*Cenchrus tribuloides*), and a rush (*Juncus Balticus*). Our seaside botanist is accustomed to see the Arrow-grass (*Triglochin maritimum*), on every salt marsh. It is likewise common on the marshes a little way back of the lake. In the "basin" near the city flowers a Pond-weed (*Potamogeton pectinatus*). Silver-weed (*Potentilla anserina*), is plenty in the sand, and in some places last season it sent off runners each way full seven feet in length.

We have never seen the Seaside Crowfoot (*Ranunculus cymbalaria*) near the lake shore, but it is very common a little way back on the low pastures and meadows on richer soil. Some of our neighbors tell us that they find the Prickly Pear (*Opuntia vulgaris*) on the bluffs just north of

the city, where it was once much more abundant. The grasses *Calamagrostis longifolia*, Card-grass (*Spartina cynosuroides*), Porcupine-grass (*Stipa spartea*), are common enough and look as though they ought to be dwellers by the sea. We find in the sand beach of the great lakes, Pitcher's Thistle (*Cirsium Pitcheri*), a curious plant which we should look for along the sea beach. It is white, woolly all over, the stem leafy and sprawling, the flowers cream color, and about the size of our common *Cirsium lanceolatum*. The Dwarf, or Sand-cherry, usually trailing six to eighteen inches high, characteristic of true western enterprise, occasionally grows along our shore to the height of eight or ten feet, and has a stem two inches in diameter.

In the walk first proposed one finds thrifty specimens of the Bearberry (*Arctostaphylos Uva-ursi*). Its pinkish white flowers are too pretty to be known by two such long, ugly names, as those given by Adanson and Sprengel. There are now and then tufts of the Early Wild-rose (*Rosa blanda*), abundance of common Milkweed (*Asclepias cornuti*), and *A. obtusifolia*, several Willows and Poplars, Scrub Oak, Shrubby St. John's-wort, Climbing Bitter-sweet (*Celastrus scandens*), Grape-vines, Vetches, False Solomon's Seal, Asters, *Euphorbia corollata*, *Panicum virgatum*, Lead-plant (*Amorpha canescens*), and at the mouth of a brook, its kindred, the False Indigo (*A. fruticosa*), Poison Ivy, and Fragrant Sumach.*

We have found several specimens of the curious *Aphyllon fasciculatum*, a parasitic ghostly plant of the Broom-Rape Family. In August we find two species of Prairie Clover (*Petalostemon violaceum* and *P. candidum*), the former has been pronounced the belle of Chicago, notwithstanding the want of grace in its straight flower-spike. Back in the ponds flourish the Pond-lilies (*Nymphaea odorata* and *N. tuberosa*), and *Nuphar advena*. The Yellow Nelumbo (*Ne-*

* In dry places flourishes a curious Umbellifer, the Rattlesnake-master, or Button-Snake-root, *Eryngium yuccaefolium*, with leaves like the Yucca, and head and stalk resembling the onions of our gardens.

lumbium), has been found in the mouth of Calumet River, ten miles south of Chicago. In the groves are beautiful Violets, Phloxes, *Oxalis violacea*, the unique *Dodecatheon Meadia*; on the marshes Buckbean (*Menyanthes trifoliata*),* Indian Plaintain (*Cacalia tuberosa*), *Valeriana edulis*, and away back on the prairies are hundreds of acres of tall sedges and grasses abounding in several species of *Liatris*, showy Sunflowers, rank Rosin-plants (*Silphium*), and multitudes of Asters and Golden Rods.

REVIEWS.

THE ANDES AND THE AMAZON. †— This racy account of a six months' trip across the continent of South America is really a valuable contribution to American geographical science. The author's "general route was from Guayaquil to Quito, over the Eastern Cordillera, thence over the Western Cordillera, and through the forest on foot to Napo, down the Rio Napo by canoe to Pebas, on the Marañon, and thence by steamer to Pará." This is a new route of travel, and after a trip to the Pacific shores of our own continent, we should prefer this safe, romantic and unfrequented journey to any other we know of. The ascent of the Nile, the great rivers of Asia, and even the Congo itself, are hackneyed subjects compared to scaling the Andes, passing around Chimborazo, and plunging for a long month into the depths of a South American forest, seeking the sources of the Napo River, with that magnificent sail down the Marañon and Amazon to crown all.

As an illustration of the author's pleasant style (though his facts are not always well arranged) we quote his impressions of Chimborazo:—

"Coming up from Peru through the cinchona forests of Loja, and over the barren hills of Assuay, the traveller reaches Riobamba, seated on the threshold of magnificence—like Damascus, an oasis in a sandy plain, but, unlike the Queen of the East, surrounded with a splendid retinue of snowy peaks that look like icebergs floating in a sea of clouds.

On our left is the most sublime spectacle in the New World. It is a majestic pile of snow, its clear outline on the deep blue sky describing the profile of a lion in repose. At noon the vertical sun, and the profusion of light reflected from the glittering surface, will not allow a shadow to be cast on any part, so that you can easily fancy the figure is cut out of a mountain of spotless marble. This is Chimborazo—yet not the whole of it—you see but a third of the great giant. His feet are as eternally green as his head is everlastingly white; but they are far away beneath the bananas and cocoanut palms of the Pacific coast.

Rousseau was disappointed when he first saw the sea; and the first glimpse of Niagara often fails to meet one's expectations. But Chimborazo is sure of a worshipper the moment its over-

* *Habenaria Calopogon*, three or four species of *Cypripedium*.

† The Andes and the Amazon: or, Across the Continent of South America. By James Orton. With a new map of Equatorial America and numerous illustrations. New York. Harper and Brothers. 1870. 12mo, pp. 356.