water seas, their shores barely producing Arctic willows and sages.

At present the warm strata of air are found high up the mountains melting the few, short glaciers away nearly to their founts. When an increase occurs that shall melt them and the *Mers de Glace* all away, and there remains no more perpetual snow and ice to keep springs and rivers alive in summer; the parched plains being mantled by a torrid substratum of moistureless air, the poor inhabitants of earth, if living by the same means as we exist now, may sigh for the return of the almost unknown and totally unappreciated boon—a condition of climate that admits of glaciers.

THE BIRD OF AMERICA.

The White-headed, but incorrectly called Bald Eagle, is well known to every one as the emblem of the United States. Many, however have false ideas of its real appearance and habits, obtained chiefly from unnatural figures and fictitious stories, so we have reproduced here the excellent illustration from life made for the "Ornithology of California," published by the Legislature in 1870, giving also a short account of its natural history from the most authentic sources.

The colors of old birds of both sexes are dark chocolate, or blackish brown, the feathers paler at edges, the head and tail pure white, bill and feet yellow. Length, 30 to 43 inches; extent of wings, 78 to 88 inches; wing, 20 to 26 inches; tail, 11 to 15½ inches; the female being considerably the largest (as in all birds of prey), and Pacific coast birds are larger than eastern or southern. The young in the first year is nearly uniform black, the feathers afterward growing out paler, and white near their base, every year becoming more white on head and tail, until the fourth year when these parts become entirely white. This change with age has led many to suppose that there were several kinds, especially as young birds often show white patches on the body.

Such a showy and noble-looking bird of course attracted the attention of the first European visitors to America, north of Mexico, where it is not known to exist. Its white head distinguished it from the very similar white-tailed eagle of Europe and Greenland, leading the celebrated Linnæus to adopt for its scientific name the Greek word for White-headed, which, combined with the generic title of the Fishing Eagles, makes that used by naturalists in all enlightened countries since 1760, namely, *Haliætus leucocephalus*.

About 1776 Congress adopted it as the emblem for our coins, and other national devices, against the advice of that practical philosopher, Franklin, who thought that a bird which lived in great part by robbing the industrious fish-hawk and killing defenceless lambs was unworthy of such an honor, advising that the honest and useful turkey should be adopted in its place, being also an American bird. This would have been, perhaps, as appropriate as the barnyard fowl of France, but the admirers of the Roman emblem, and the dignified aspect of the eagle, prevailed—though it has been recently supposed that the bird on coins may represent something quite different, almost anything between vulture and owl in fact, perhaps ivarying with the baseness or intrinsic value of the metal.

This bird inhabits the whole of North America, except Mexico and southward, where other kinds occur. It leaves only the extreme northern shores in winter, remaining wherever it can obtain fish from unfrozen waters, or small animals and birds near the forests. It is, however, a lazy bird, never diving for fish or pursuing game when it can find them dead or disabled, and therefore watching the fish-hawk and the hunters to share what it can capture with their aid. Its flight is heavy and slow compared with some birds of prey, which to some extent excuses it for "sponging" on others; but it has been seen at times to fly with great swiftness, capturing the flying fish in its short course over the waves, and certainly is swifter than the laborious fish-hawk. At times it is forced to dive for fish, circling round high in the air until it sees one near the surface, and then plunging like a bullet headlong to the water, though it does not go beneath it, but seizes the fish in its long, sharp claws. It also picks up dead ones and injured birds in the same way, while at times it varies its fare by hunting ground squirrels, etc., watching for them from the air or a tree.

The California Indians, and, to some degree, the Spanish population, held this bird sacred, and formerly it was a numerous species, allowed to live around the ranchos as a useful tenant, on account of killing many squirrels, though it might occasionally capture a weak lamb or pig. Instances have been published of infants being carried off by this eagle, but less often than by the fiercer and stronger golden eagle. Nowadays, as every schoolboy is allowed to carry a gun and shoot what he can, there is no danger of eagles becoming too plenty.

THE WHITE HEADED OR AMERICAN EAGLE.

The nests of this eagle were formerly very common here, built often in some tall sycamore and large enough to fill a two-horse wagon, being composed of large sticks, three or four feet long, piled together year after year, until the mass was five feet thick, having a little cavity at the top lined with a few clods of turf, moss, etc. In this are laid two to four eggs nearly equally rounded at both ends, whitish, rough, and from two and one-half to three inches long. They are laid from January to April, according to climate, the bird nesting from latitude 32° to latitude 68°.

Near the sea coast, where trees are absent, the nest is often built on a cliff, but pine trees are the usual kind selected northward.

The title of fishing eagles, given to this (and eight or nine other foreign kinds), merely shows its favorite food, and, indeed, it is rarely met with many miles from water, usually building its nest near its fishing resorts. In captivity it is dull and silent, except when hungry, then screaming and ruffling its feathers at sight of food in the most fierce manner. Young birds have often been raised from the nest, but are always dangerous pets, requiring a cage or chain, though they were formerly kept half-tamed about the ranches, going off to hunt in the morning and returning at night.

Disease of Chestnut Trees.—The *Comptes Rendus* of the French Academy of Science contains an interesting note by M. Planchon on the subject of the disease at present prevailing among the chestnuts of the Cevennes, and which is probably identical with that noticed in the Basses-Pyrenees and in upper Italy. The chief symptom visible outwardly is the decay of the extremities of the branches, sometimes one after another, and sometimes all at once, in which latter cases the tree quickly dies, though in others it may last in a more or less diseased state for two or three years. This gradual or sudden death of the branches, M. Planchon found to be consequent on an alteration of the roots. If these be laid bare parts of the wood and bark of the larger and middle-sized ones are seen to be softened as if by a kind of gangrene, and a fluid exudes from their tissues which, owing to its containing tannin, forms an ink with the iron in the soil, and stains the earth round about for a considerable distance. The roots thus affected, from the smallest radicles to the largest trunks, are characterized by the constant presence of a mycelium or fungus which assumes various forms, but which always appears subsequently on the trunk of the tree in the same form that it was present on the underground portion of it. It generally presents itself in the form of more or less ramified whitish-yellow strings, and is probably closely allied to the *Agaricus melleus*, which plays such havoc with fir trees.

How to Smoke a Pipe.—A correspondent of the New York *Sun* gives the subjoined information: To those who are attached to the pipe, it may be a matter of interest to know how their last puff or draft of smoke may be as fresh as the first. It is well known that smoking in the usual manner the last portion of the tobacco becomes damp by presence of oil or nicotine drawn from the heated tobacco above, which causes a sickening and nauseating effect, bitter to the taste, unpleasant and unhealthy, as compared to the first half of a well-filled pipe. The following I have found to be effectual in giving me a good, fresh smoke from first to last: Place a small quantity of tobacco in the bottom of the bowl, light it, and when well afire, fill the pipe and before each draft give a light puff outward through the stem, which causes the tobacco to burn upward, all below being consumed. This is a sensible way of smoking the time-honored pipe. A still better way would be not to smoke at all.