Young Nelson and his companion then pushed off from shore in their boat and as they did so "immense numbers of ducks arose from the water, in every direction, and after wheeling about a few times the most of them started off. When they circled by we recognized several species." These were, in modern parlance, Lesser Scaup Duck, Baldpate, Buffle-head, Gadwall and Mallard. In comparison with conditions today, the presence of the Gadwall and the absence of the Pintail are to be noted. In the latter respect it is not unfair, I hope, to suggest the possibility that young Nelson's immature experience prevented him from recognizing all of the species of ducks really present.

It is evident from the text that Nelson and his companion then proceeded in their boat down the outlet slough from Lake Merritt toward Oakland Harbor. They encountered some Willets, a pair of which were shot; and, "pushing the boat up into a narrow strip of grass bordering the marsh", they came upon "a large Rail" [California Clapper Rail, a race not then described] the behavior of which is recorded with admirable attention to detail. Among other birds encountered were "*Sterna Caspia*", "a fine specimen" of which was shot, and several Brown Pelicans, which "commenced fishing near the ruins of an old wharf, which was built out in the bay."

The article closes appropriately, with evident regard to the prevailing formalities of composition, as follows: "The sun sinking behind hills in the direction of the 'Golden Gate' warned us that it was time to turn our boat homeward, and we reluctantly bade farewell to one of the pleasantest days we had enjoyed for some time."—J. GRINNELL, *Museum of Vertebrate Zoology, University of California, Berkeley, April 10, 1925.*

Remarkable Work of the Pileated Woodpecker.—On the talus slope 100 feet above the "Indian Cave", and growing among the great boulders, stands a group of four sickly-looking Douglas spruces. Three of these trees are about 125 feet high; one is a smaller tree, about 75 feet high. The larger trees average three feet in diameter, four feet above the ground; the smaller tree is fifteen inches in diameter. Now the interesting thing about these trees is the work that has been done upon them by a Western Pileated Woodpecker (*Phloeotomus pileatus picinus*). Each tree has been partly stripped of bark. Two have been worked upon from the top to within a few

Fig. 45. CHIPS OF BARK AT THE BASE OF ONE OF THE TREES WHERE THE PILEATED WOODPECKER WORKED.

feet of the ground, and the remaining two have been worked upon to within twenty feet of the ground. The outer and roughly fissured bark has been systematically chiseled away, giving the impression of trees that had been carefully surfaced by an expert working with an adze. For several feet near the top of two trees the bark has been stripped to the cambium layer, but by far the greater portion of the work was the chiseling away of the rough outer layer of bark to a depth of three inches, leaving a comparatively smooth, golden-brown surface. Of course the layer removed varies in thickness, growing thinner as the tree tapers toward the summit.

From a little distance these freshly carved trees have the appearance of the yellow pine, rather than the dark-barked Douglas spruce.

Underneath is a great litter of chips and strips of bark; a cord surely, most likely more. Many of the strips of bark are two feet long, while the great mass of chips average eight inches. There is nothing rotten or soft about this bark, and when we tested its strength we found that it held tenaciously and required the full strength of strong fingers to pry off one of the ridges of bark where leverage could most readily be applied. The Woodpecker, however, working with his strong chisel-like bill is able to apply the power of a wedge as well as leverage.

Close examination of the bark where the woodpecker had been working disclosed numerous pits, or pockets, which had encased the objects of the woodpecker's pursuit. By ripping off layers of bark just below where the woodpecker had been working we uncovered several occupied pits. The occupants were soft, white, grub-like objects which we took to be the larvae of some sort of ant. All this work we believe to have been accomplished by a single Pileated Woodpecker, and in the short space of a few months.—ENID REEVE MICHAEL, *Yosemite, California, March 9, 1925.*

Clark Nutcracker in Alameda County, California.—I have recently had an opportunity of handling a Clark Nutcracker (*Nucifraga columbiana*) that was killed near here and brought to me to be skinned. This is a most unusual bird for this region. I have no memory of another having been taken during my forty-five years' residence here.

The bird was a female, apparently immature, and it was killed in Cull's Canyon, near Hayward, February 16, 1923. It was said to have been feeding on a dead calf on the hillside, but no meat was found in the stomach. I have been told several times of birds, probably this species, seen near here and supposed to be "some kind of woodpecker or jay".—W. OTTO EMERSON, *Hayward, California, April 20, 1925.*

Early Nesting of the Fork-tailed Petrel.—Exactly fifty-three days earlier in the season than my California breeding record date of May 14, 1916, for the Fork-tailed Petrel (*Oceanodroma furcata*), and on the same island, I discovered the Fork-tailed Petrel breeding on March 22, 1925, on Whaler Island off Crescent City, California. Cast bump-pe-ty, bump-pe-ty, bump, upon a surface of round boulders by a large back-swell, my boat was soon left high and dry by the fast ebbing tide, upon the shore of Whaler Island. I landed on the north end and immediately made for the rising easterly flat, which is covered with heavy, black loam, matted down with long, coarse grass. Petrel aroma was evident and I immediately began breaking through the surface as I trod the honeycombed home of the Kaeding Petrel. Many holes were dug up but revealed no birds. A low cackle was heard and its exact source soon located. One foot of tunnel laid open revealed two Kaeding Petrels, huddled together at the pear-shaped end of the burrow. In scattered spots several more "sets" of two birds were found, but in no instance were eggs located. These birds did not eject a squirt of oil, as petrels do in advanced nesting.

Next, I searched on the seaward side among the boulders, where Fork-tailed Petrels were nesting on May 14, 1916, but found no evidence of any nesting birds at this spot. My attention was then turned towards the north side of the island, where a rocky, low cliff is bordered below by a boulder-covered beach that is covered at times of high seas by the breakers. This was investigated, with the Pigeon Guillemot in mind, but March 22 was apparently too early. I next turned to a broken-up ledge, scantily carpeted with dirt and grass, ten feet above my head. I scrambled up the steep slope to this ledge and with great effort dislodged a heavy rock, three feet in