

ARCHITECTURE OF THE AMERICAN WHITE-FOOTED MOUSE (DEER MOUSE).

(*Mus leucopus*, Audubon.)

BY DANIEL CARTER BEARD.

It is a mistake to suppose that because you live in New York a long journey is necessary before you can see a real wilderness.

Some pleasant afternoon, next summer, cross one of the numerous ferries that land at the Long Island Railroad Depot, take any train, and before many minutes you will undoubtedly go dashing by some hopeless looking swamp lands.

Stop at the first station, walk back to the swamp that you have just passed, and, if you are not afraid of wet feet and torn clothes, enter. In five minutes' time you have not only lost all traces of civilization, but all signs of the presence of man!

The trees, whose interlocking branches overhead conceal the sky, might well be a thousand miles from any human habitation.

The almost impassable thicket of green briar, the festoons of cable-like wild grape vines, the rushes, the treacherous bog under foot concealed by a carpet of soft mosses, coarse grasses, and rank green skunk cabbages, is just the same in appearance as it was when the occasional tracks left by the moccasined feet of the red man were the only signs of human life in the vast wilderness of a continent!

You are face to face with Nature. Not in her most entrancing form, but always wonderfully beautiful when unmarred by the hand of man!

Here within sound of the screaming locomotives the woodcock rears its persecuted family. Here timid Bob White has found a temporary retreat, and even ventures to whistle, in a subdued tone, his well known call to his dapper little mate as she sits on her score of pretty white eggs.

Close by the inoffensive muskrat gnaws contentedly at a root; *Rana pipens* bellows forth his sonorous notes; red winged blackbirds, robins, catbirds, hawks, and owls build their nests and rear their young undisturbed by the dreaded small boy. The gray squirrel bounds among the branches overhead, and the beautiful little flying squirrel peeps from his hole in the red cedar, all as if the noise and smoke of a great city were not within hearing and sight but for the dense underbrush.

The poison sumac and thorny vines form a barrier which leaves no charms for the small boy and past which few pot hunters venture. The local sportsman is content to wait until Bob White and woodcock families are old enough to venture out of their retreat and be murdered in the most approved style of the war of extermination. It is in such neighborhoods that the white footed mouse abounds.

If you visit the swamp now, you will find the scene changed. Mr. Woodcock and all his family have left or been killed; Bob White and family have shared the same fate. The winds have stripped the trees of their leaves, and the frost has changed the grass from green to brown. The thickets and trees are gray and bare in the swamps, and the empty nests of the blackbird, robin, thrush, and greenlet are now plainly discernible as dark objects against a leaden sky.

Did I say the nests were empty? So they appear at first glance, but an examination will show that some new tenant has been altering these summer houses and refitting them for winter quarters.

If you care to again venture through the briers of the swamp, and have not been warned by a swelled face and hands caused by the poisonous sap of the sumacs, you will probably be rewarded by seeing the nimble-footed, bright-eyed little tenants of last summer's birds' nests leap from their cozy quarters, run out to the end of a branch, there to stop and gaze wonderingly at you. If you remain quiet, the mice will return again to their nests, and with little trouble may be captured. Tie them up in your pocket handkerchief, and take them home—they will make pretty pets; and as these mice are nocturnal and sleep all day, you will be sure to find them awake and full of fun and capers at night, the only time a business man will have leisure to watch them.

Last Sunday I examined twenty or more birds' nests that I found in the low bushes of a bit of swamp land, only two of which had not been remodeled by *Mus leucopus*. I made careful sketches of three of these nests, reproductions of which accompany this article. The first shows the nest of a swamp blackbird that has been filled with the down from the seed stalk of the cat tail. Under this warm coverlid little Whitefoot can sleep snug and warm in the frostiest weather. The second sketch shows a nest that has been lined and roofed with moss; a doorway at the top and near the

eaves, so to speak, furnishes an entrance and exit for the occupant.

The third sketch differs from each of the preceding ones in having a neat round hole cut through the side of the bird's nest, and an unmistakable roof made from the white inner bark of some tree covering the top of the nest. Although Audubon describes several nests which he found constructed by *Mus leucopus* "with nearly as much art as the nests of the Baltimore oriole," I am quite certain the little four-footed artisans in my immediate neighborhood seldom if ever take the trouble to build their own houses, much preferring that some other architect shall do it for them.

I have found white-footed mice occupying the nests of flying squirrels in red cedar trees, have seen them scamper from all kinds of birds' nests that are located within ten feet of the ground, have found their storehouses in the hollow rails of a fence, have dug the little animals out of the burrows of other small creatures, and have even caught them housekeeping in the walls of a round-topped muskrat's hut situated in the center of a frozen pond. Central Park probably shelters a number of these little animals. A very superficial survey, made upon the suggestion of the editor of the SCIENTIFIC AMERICAN, disclosed one catbird's nest near the reser-



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voir that had lately been occupied by deer mice. Unlike the common house mouse, *Mus leucopus* has not been degraded and contaminated by living with the lords of creation; on the contrary, he avoids the habitation of man, preferring the sweet nuts, seeds, and berries of the woods to the refuse of the kitchen.

Although fond of Indian corn and grain of all kinds, such material appears to form but a small part of the mouse's diet. I have examined many storehouses of the white-footed mouse, and never yet discovered either wheat or grain in them, notwithstanding the fact that the stores examined were many of them located in the thickets bordering both corn and wheat fields.

When Indian corn is left standing in stacks late into the fall or winter, I must acknowledge that the good judgment of the deer mouse often causes him to select the stacks for a place to locate his winter residence; the perfect shelter, abundant food, and soft silk for nest-making offer inducements not to be overlooked by such a practical mind. The damage done the farmer, however, as a rule, is so slight as to be unworthy of attention. As a pet the white-footed mouse will be found to possess a timid and gentleness, which combined with his small, agile form, brown back, white belly, delicate pink and white feet, and large, lustrous eyes, will seldom fail to win the affection of any one who cares for him. The pair that were captured in the muskrat house made willing captives, and lived contentedly in a high narrow cage built for them of wire netting.

A nest of the summer yellow bird, still resting in the fork of maple in which it was originally built, was fastened by wires to the side of the cage near the top.

The mice took immediate possession of the nest, and used it as a dormitory until spring; but while the buds in the orchard and woodland still imprisoned the blossoms, and before the first swallow had made his appearance, my little captives destroyed the bird's nest and gnawed off a portion of the window curtain that accidentally fell against their cage, and with the material thus obtained they built a globular house on the green sod at the bottom of their cage. In the subceller of the new dwelling an interesting family of little ones was born. The instinct, reason, or automatism (?) of the mice taught them that the bird's nest would be too small for a larger family, and with commendable common sense they erected a more commodious though less poetic abode on the ground.

The ingenuity that the deer mice display in adapting and remodeling such shelter as they happen to find, to suit their own wants, is to me more wonderful than the common instinct which teaches the Baltimore oriole to reproduce the same nest year after year, like the automatic work of the bee tribe in producing their geometrical honey cells.

Wooden Magnets to Cure Disease.

A curious example of the force of imagination is reported from Philadelphia. Dr. George C. Harlan, surgeon to the Wills Ophthalmic Hospital in that city, in the current number of the *Medical News* reports a curious case, showing the great influence of the mind upon the body, and the beneficial effects of a wooden magnet upon both. A young Philadelphia woman, Lizzie D. by name, applied at the Polyclinic, Thirteenth and Locust Streets, for relief from a disease of the tonsils. She was treated by Dr. Solis Cohen. Her disorder was attended with hysteria, and, like all hysterical people, the idea of being doctored filled her with delight. Shortly after her initiation, the nervous symptoms became more and more marked, and she was transferred to the care of Dr. Mills, the well known neurologist. Five or six weeks previously she had had pleuropneumonia, and after that paralysis attacked the arms. This was cured, but the disease manifested itself in the legs and feet. Besides this there was a numb feeling in the lower part of the body, and twitching on the right side of the face, similar to that seen in St. Vitus' dance.

Dr. Cohen applied a Charcot magnet in front of the ear. To his amazement the spasms on the side of the face touched by the magnet were greatly lessened in frequency and extent. It was evident that the cure was the result of imagination. After that she was attacked with eye troubles. At first there was no defect other than headache, after the prolonged use of the eyes, and some shortsightedness, but at length the right eye became, apparently, entirely blind, and muscular spasms of the most violent character disturbed not only the eye, but the face and neck. She was sent to the Eye Hospital, and treated by Dr. Hansell. After several examinations, the Charcot magnet that had proved so efficacious in the hands of Dr. Cohen was applied to the

defective vision, and with the most astonishing result. After many applications, it occurred to Dr. Harlan that it would be a good idea to try the effect of unmagnetized iron of the same form and appearance of the magnet. A wooden "magnet" was procured, with iron tips, to give the metallic impression to the skin. It was placed in the drawer where the original Charcot instrument had been kept, and the patient was thoroughly ignorant of its character. Before it was applied it was noted that the pupil of the right eye was widely dilated, as in disease, and was perfectly rigid when exposed to a bright light. There was twitching of the muscles of the right side of the face.

The application of the wooden magnet had a wonderful effect. Shortly after the painted wood was applied with much seriousness to her head, the twitching of the muscles stopped, and the face assumed its normal appearance. Gradually the pupil of the right eye became of the same size as the other, and freely responsive to light. The wooden magnet had triumphed.

Dr. Cohen a short time ago had a case where the wooden magnet proved its efficacy. A patient of his fell down, and thought she dislocated her elbow joint. She was treated for that by a practitioner called in the emergency, and he discharged her with a stiff arm, which he said he was unable to straighten. Dr. Cohen examined the arm, and found no dislocation at all. He asked her to report at the surgical department of the Polyclinic for verification of his opinion. She called and Dr. Steinbach noted extreme spasm of the biceps tendons being like whip cords. Dr. Cohen applied a wooden magnet, and the spasm relaxed at once.