



THE PASSENGER PIGEON IN PENNSYLVANIA

Its Remarkable History, Habits and Extinction,
with Interesting Side Lights on the Folk and
Forest Lore of the Alleghenian Region of
the Old Keystone State

John C. French

The Passenger Pigeon
IN PENNSYLVANIA



By JOHN C. FRENCH

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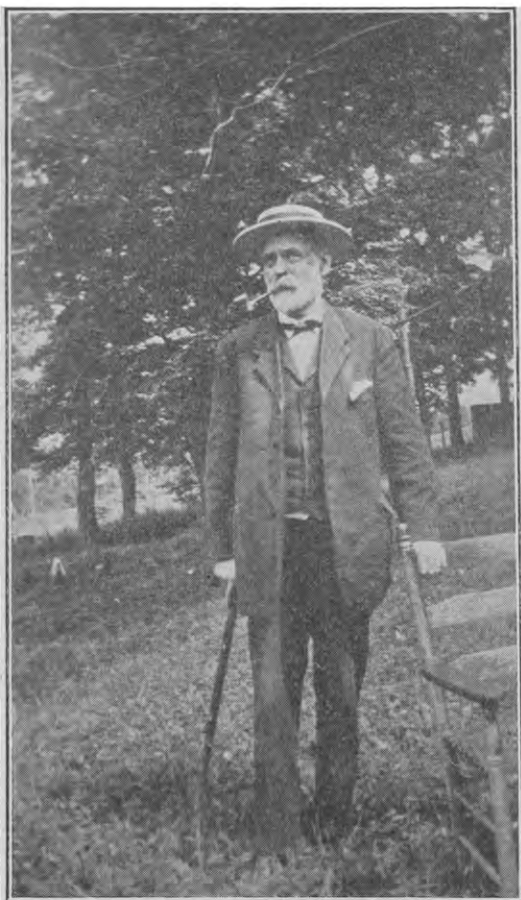
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JOHN C. FRENCH

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The Passenger Pigeon

In Pennsylvania

Its Remarkable History, Habits and Extinction, with
Interesting Side Lights on the Folk and
Forest Lore of the Alleghenian
Region of the old Keystone State

BY

JOHN C. FRENCH

Roulette, Potter County, Pa.

With Chapters by

Samuel N. Rhoads, author of "Mammals of Pennsylvania
and New Jersey", Dr. B. H. Warren author of "The Birds of
Pennsylvania", Henry W. Shoemaker, Litt. D., Charles H.
Eldon, James V. Bennett, John H. Chatham, and others.

„The Wild Pigeons on Leaving us Repair to Some Undiscovered
Satellite Accompanying the Earth at a Near Distance."
—Cotton Mather.

ALTOONA, PENNSYLVANIA

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1919

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This Monograph of
The Passenger Pigeon of America

Is Dedicated to

The Memory of My Father

Nehemiah French, 1818-1906

An Apostle of Bird Protection

And to

Colonel Henry W. Shoemaker

Advocate of Conservation of Bird and Animal Life
In Pennsylvania

Who Prompted Me to Write It

JOHN C. FRENCH

Roulette, Pennsylvania, July 15, 1918

“Russians believe that pigeons are the sons of erring Christians.”—E. J. Dillon.

“Why then, Sir, I will take a little liberty to tell, or rather to remember you, what is said of Turtle Doves; first, that they silently plight their troth and marry; and that then the survivor scorns, as the Thracian women are said to do, to outlive his or her mate, and this is taken for a truth, and if the survivor should ever couple with another, then not only the living but the dead, be it either the he or the she, is denied the name and honor of a true Turtle Dove.”

—Isaak Walton

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INTRODUCTORY PREFACE

THROUGH the kindness of its sponsor, my good friend, Col. Henry W. Shoemaker, I have had the privilege of reading the proof sheets of Mr. French's Passenger Pigeon Monograph.

Of later time a great deal has been written upon this fascinating subject. Of necessity most of it has either related to the period of the annihilation of this remarkable bird, or to a compilation of early literature of its life history, much of which was derived from most unreliable sources.

It is safe to say that no other single publication of modern times contains as much intimate and first-hand personal observation as this regarding the habits of the Passenger Pigeon throughout the year, in a well defined and typical position of its breeding range. Very few statements of fact are to be questioned and many of the author's generalizations are truly inspiring and increase our appreciation of this great tragedy in Avian history. Here, too, we find recorded, probably for the first time in literature, an authentic narration of the part this bird played in the mythology and folk-lore of the Algonquin Indians.

It is to be hoped, when the inevitable demand for a second edition of this brochure shall make its reprinting necessary, that Mr. French will rearrange his chapters to conform to their historic and chrono-

logical sequence. This will not only disarm the inevitable criticisms of the technical perceiver, but present the valuable and original contribution which he has made to the Natural History of Pennsylvania in a form more useful as well as readable to both layman and naturalist.

Not only are we greatly indebted to Mr. French for this labor of love in rescuing facts from oblivion, but our gratitude should also include Colonel Shoemaker, the publisher, whose tongue, pen and fortune have so long been devoted to research in the Natural History, Antiquities and Folk Lore of his well-beloved State.

SAMUEL N. RHOADS.

Haddonfield, N. J., October 20th, 1918.

CHAPTER I.

Retrospective Lore and Legend—Characteristics, Habitat and Description

AMONG native birds of North America the Passenger Pigeon was, in several characteristics, most wonderful, the living, pulsing, throbbing and picturesque illustration of the abundance of food, prepared by bountiful Nature, in all her supreme ecstasy of redundant production of life and energy, that the native tribes and our early pioneers ever knew, or imagined as essential to their Happy Hunting Grounds and other blest abodes beyond the veil of physical environment, where the longings of baffled minds should vanquish the fears of sinister evils and realize harmony in the triumphant existence, and the rapture of attaining the ideals of unalloyed peace.

The Passenger Pigeon (*Ectopistes migratorius*) was known, east of the Rocky mountains from the Gulf of Mexico to Hudson Bay, wherever food was abundant, and not covered by snow; for pigeons could not endure snow, although the cold affected them little when the air was dry. They have been reported around the shores of Hudson Bay in November, and in southern Pennsylvania, as late as the first of February, when the ground was bare and food was plentiful. Migrators seem to have been in quest of more inviting feed-

ing grounds where food for the young could be obtained, from the forests around a nesting city, within a-radius of about fifty miles.

The Passenger Pigeon was a voracious feeder. His favorite food was beech-mast, picked up in the early spring seasons, when beginning to germinate and absorb nitrogen and carbon from the air. But the bird fed upon numerous grains, nuts and fruits, such as buckwheat, hempseed, maize, acorns, chestnuts, holly berries, cherries, blackberries and huckleberries. While in the south, much rice made the birds fat and less active, but their extraordinary power of flight remained, for they have been killed in Pennsylvania, with crops full of rice that must have been gathered by them hundreds of miles away in the Carolinas, or in the Mississippi valley, beyond Memphis, Tenn. They could have crossed the Atlantic ocean in about three days, flying from island to island.

In color the Passenger Pigeon was attractive and distinguished, especially in the male birds. The head, part of the neck and the chin a slate-blue; the lower part and sides of the neck deep slate, "shot" with gold, green and purplish-crimson, changing with every movement of the bird, or in the rays of sunlight as they intensify or become obscured by passing clouds. The throat, breast and sides are reddish-hazel, the back and upper tail coverts dark slaty-blue, slightly powdered with black on the shoulders. The primary and secondary quill-feathers are black, the primary being tipped with dirty-white. The lower part of breast a

Male purplish-red, and the abdomen white. The long, pointed tail had the two central feathers deep black, the rest white, taking a bluish tint near their bases, and marked with one black spot and another of rusty-red on the inner webs.

The beak was black, eye a fiery-orange and a naked space around the eye was purplish-red. The female was smaller, with oaken-brown breast and ashen neck and a slaty space around the eyes. An adult male was about 16 inches long, while a female scarcely attained 14 inches, although she was as swift and tireless in flight as he was. In nest building the female did the building and her mate fetched materials—a few twigs rudely woven into a platform, so loosely that eggs and young can be seen from below and begun and finished in one day. They are neither artists nor craftsmen; for many nests fall to the ground in the winds and eggs and squabs are lost. The ground was covered with the ruins of many homes, under the nesting trees of their colonies and animals gorged upon the young birds nightly.

The Indians told quaint legends of the pigeons, when they returned, awaking an honest adoration in their hearts: The Spirits of men came upon the earth seeking incarnation, among the birds and animals with an appeal, "Ho, Elder Brother, the children have no bodies." But they were unheeded, until the pigeon came and answered: "Your children shall have bodies; my bones shall be their bones, my flesh their flesh, my blood their blood, and they shall see with my eyes.

My feathers shall cover their heads and their legs shall be bare, as my legs are bare." It was believed that if the hair were lost the souls could never reach the Happy Hunting Ground.

The Forest of Northern Pennsylvania

(From Altoona Tribune)

Following is an extract from the introduction to articles on great hemlock forests of western Pennsylvania, in "History of the Lumber Industry in the United States," from the pen of John C. French:

"When that romantic enthusiast, Ole Bull, with 105 followers, founded the ill-starred Norwegian colony, in the summer of 1852, on the waters of Kettle creek, a tributary of the west branch of the Susquehanna, in the southeastern part of Potter county, and devoted so much of his time and energy to building his castle among the pines and hemlocks on the bank of Bull Run, an almost unbroken forest stretched away to the westward for a distance of more than 150 miles. It was chiefly mature hemlock timber and included several counties, embracing upward of 5,000,000 acres; but there were strips of pine fringing the streams, and ridges of hardwood timber which had succeeded the original growth of evergreens, wherever forest fires or tornadoes had destroyed it or where it had succumbed to the insect blight."

CHAPTER II

Customs, Flights and Nesting Grounds—Last Appearance of Noted Birds in the Central Hardwood Belt

UPON the subjects of nesting grounds and of the migratory flights of the Passenger Pigeons the legends have been numerous and wonderful, during the last 200 years and more. Wherever the beechmast was plentiful, which may be roughly outlined as "the central hardwood belt" and many conifer regions, surrounding the same, in which grew much beech timber in groves of many other kinds of trees. From the Niagara it ran east, then south, passing through central New Jersey; thence southwest, following the eastern and southern edge of the Piedmont plateau to central Alabama; thence in a westerly direction into Oklahoma; thence north through that state to, approximately, its northeastern corner; thence continuing in a general northeasterly direction through Missouri and Illinois to the northwest corner of Indiana; thence northeast to Lake St. Clair in Michigan; thence east through Ontario to the place of beginning.

The territory thus included embraces parts of Canada, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Alabama, Arkansas, Oklahoma, Missouri, Illinois and

Michigan: Entirely included within this boundary are Pennsylvania, Ohio, Indiana, West Virginia, Kentucky and Tennessee. From Lake St. Clair the belt of hardwoods, including beech timber, extended in a north-west direction to the northern peninsula; thence west to the head of Lake Superior in Minnesota, and thence north and east to the vicinity of James Bay.

Throughout this hardwood belt the Passenger Pigeons were known, and far beyond, when they sought the foods of seasons when beech-mast could not be obtained. In small flocks they spread abroad over the adjacent forest and plain to procure subsistence. Scouting flocks followed the receding snow line toward the north, in spring, to locate their favorite food for rearing their young. When it had been discovered in vast quantities, the news spread and, flock by flock, their fellows came, formed colonies in the secluded nooks of the forest, near the heads of the brooks where they loved to drink and bathe.

Nests were prepared—flimsy affairs in the tree-tops, consisting of platforms of twigs and sticks laid across the branches and loosely bound together—as soon as a colony had gathered in one spot. Other wards assembled in other streams near the first colony, until a city extended forty miles or more, along the chain of hills from which the streams flowed to meet some river or larger creek. The width of the city might be two or three miles or much more, sometimes twenty miles. Between the wards of the pigeon city there were avenues in the forest where no nests were

built. These might be one mile, or five miles wide, so the actual nesting colonies occupied only 3 per cent. of the townships and counties the pigeon city was built across, sometimes much less than 3 per cent.

In early days pigeons were so plentiful that a forest would seem almost entirely occupied by nests and the roosts of numerous pigeons that had no nests. The males cover the eggs and the young about half the time and females go in separate flocks to feeding grounds. The sexes seem to be divided into shifts, for all the males at one period and all the females at another equal period. But in this there are variations, owing to distance from feeding grounds. The male is on duty while the female is away.

After choosing their mates their custom seems to be of strict loyalty to each other and so devotedly attached that when death takes one of them the other remains single. With abundance of their favorite food available, two eggs are usually laid at a nesting; but it has been averred by unimpeachable testimony that in the larger cities the general rule is, but one egg to each nest. They usually nest three or four times in summer, as they follow the snowline northward; but in winter they loaf in the southland and become fat.

The chronicles of earlier writers indicate that Pennsylvania streams all had pigeon cities in their environs, the Delaware, Susquehanna and Allegheny valleys. In 1870 there was a large city, and in 1886 the last pigeon city, along the Allegheny and its tributaries.

The winter of 1876-7 was an open one. The farmers of our northern tier counties did their plowing in December and January, and the later half of February was similar to Indian Summer; so oats were sown in the first days of March and many migratory birds remained, all winter, at the north. Heavy snow, falling in March, caused the death of many by starvation and exposure. Concerning pigeons in the southern counties of Pennsylvania Mr. Hench, of Altoona, told the story, in a letter to the Altoona Tribune, last winter, as follows:

**A. L. Hench, of Broad Avenue, Altoona Writes of
Great Flocks and Hunting Them at Their
Feeding Grounds**

Atcheson L. Hench, of 2527 Broad avenue, is numbered among the residents of this city, that hunted wild or passenger pigeons in this vicinity when they were numerous at masts in Cambria county back some forty-two years ago. In the following letter he relates some of his experiences in hunting the pigeons and throws some light on the habits of the birds:

When a boy in Perry county, Pennsylvania, I saw many flocks of pigeons in wheat planting season, and I saw their depredations on the wheat fields. In December of the year 1872, I removed to Alum Bank, Bedford county, Pennsylvania, and during the winter of 1875 or 1876, about the first of January, that portion of the Allegheny mountains, where the line divid-

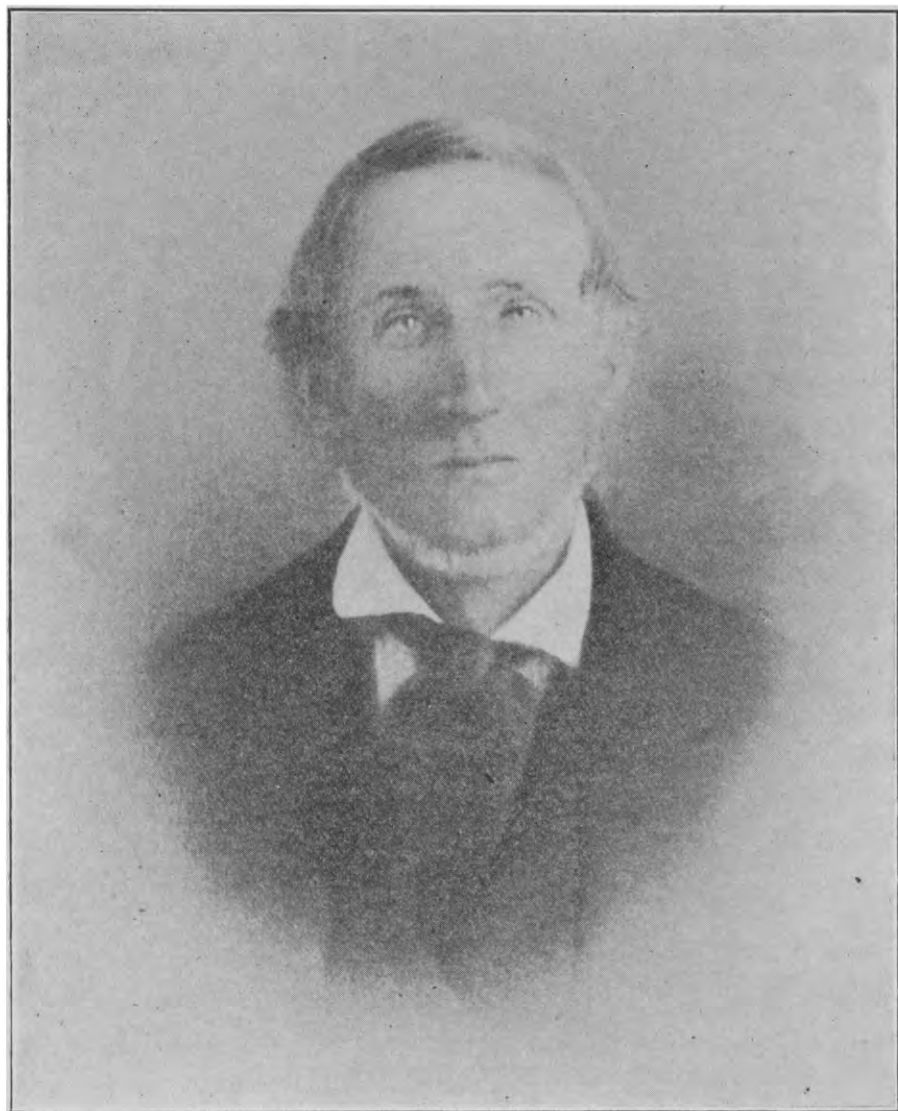
ing the counties of Cambria and Somerset is located, was visited by millions of pigeons. There was no snow on the ground during January and February of that year, and mast in the form of beechnuts and chestnuts was abundant. It was not generally known that they were there, although I lived within eight miles of this locality, until February 1. About that date, their presence became known to me and I, with others, went up to hunt for them. When we arrived, we found hunters there from Bedford, Johnstown, Pittsburg, Altoona, and even from such distant points as New York.

The pigeons roosted in the cedar swamps in north-eastern Cambria county, and in the morning they would fly from their roosts and cover thousands of acres. When in flight, they made a noise like a passing freight train. You could stand for an entire day on one spot and either shoot at those on the wing or at those which settled on the trees nearby. I made several trips during the month of February and about the first of March, several of us took provisions and feed for our horses and set out, intending to make a two days' hunt. We spent the night at the house of a friend near the feeding grounds of the pigeons. During the night, snow fell and covered the ground, burying the mast. We went into the timber in the snow, but only a few pigeons appeared. After that no more pigeons were seen, having left for parts unknown. Some people, more greedy than myself, visited their

roosts at night and shot them from their perch, bringing them away by the bag-full.

At this time referred to, there were thousands of acres of virgin timber, consisting of beech, hemlock; sugar and chestnut, in the locality where the birds were seen. Since then the mountain has been denuded of large timber by the operation of large sawmills and coal operations.—Altoona Tribune.





WILLIAM FRENCH

Of "Pigeon Lake," Tioga County, Pioneer Hunter of Northern Pennsylvania

CHAPTER III

Development, Food and Decline—Shooting and Netting the Birds

WHEREVER the cradle of the human race may have been, their migrations, we may be sure, led them by forest routes to forest countries, and it was only in recent times that the plains attracted them. Shelter and fuel were necessities, which only the forest could furnish. Food for his meagre diet was there abundant and was his for the simple effort of taking from the great orchard of bountiful Nature, whatever appealed to his appetite and his pleasure.

Upon the north shores of rivers, lakes and seas, where the sun warmed him and where the plants responded earliest to the warm rays from that orb of the day, and chief deity in his wonder and imagination, he found his garden in full blossom, the waters swarming with fish. Succulent roots in the sandy soil supplied the starchy food he required and back in the forest, fat young pigeons fell from the trees to supply his desire for flesh and oil.

From the forest he gathered fuel for his fire, poles and boughs for a lodge to protect him from storm and cold, and weapons for defense from the serpents and predatory animals. He found fruit and nuts hanging upon the trees and the winds shook them until they dropped at his feet. In the cool water he bathed

his rugged body and retired to his lodge for refreshing sleep, and to deram of further pleasures on the morrow; for his domain was undisturbed by envious hatreds.

He was free to devise new things for his pleasure and to read the riddle of life, as he beheld it, and to improvise, by conjecture, the laws of the narrow universe about him. No doubt, he thought himself the recipient of all the blessings known to intelligence and benevolent solicitude for his comfort. This vision was impressed upon his soul while he was passing from the shadow land of youth—race infancy—to the field of greater efforts that should develop forces in him, then undreamed of; but essential to the plan of evolution from troglodyte to responsible man. This early impression became his Happy Hunting Ground.

By observation he learned that the mysterious Passenger Pigeon returned to his forest for nesting only when food from the beech (*Fagus Americana*) was in abundance—a surplus of beechnuts, over and above the quantities consumed by other birds and stored for winter use by the little animals. Compared with the conifers, all broad-leaved trees are but recent arrivals in the evolution of plant forms upon the earth; and the beech tree came at the end of that development, about the last to develop, of all our tree species that bear nuts. In recent times, then, the beech tree developed to its maximum of development and suffered a rapid decline. The passenger pigeons developed with the beech, and declined in numbers, as the beech

forests, in America, shrank to very unimportant and meagre forests.

The best beech forests of our times were on interval lands of the Ohio river; its tributaries; and upon the slopes of the Appalachian mountains. These gave most of the mast for squab-feeding, and we may assume that many hundred millions of the old birds—adults—existed at the beginning of the nineteenth century—1801—in the United States, vanishing to naught since then.

The first authorities, writing in 1810, were unaware of other nesting cities, even in Kentucky, at the same time. Wilson saw one city and Audubon saw another city at the same time, and they told so vividly of each one that no further effort was ever considered desirable, until it was too late to make new observations—the pigeons had become extinct, or nearly so, at the beginning of the twentieth century. Only one pair of birds was reported in 1901, in Pennsylvania, and five birds were all that anyone saw in 1906.

Since then none have been seen in this country. There are pigeons in South America that resemble the passenger pigeon and have been reported as practically identical; but this has not been verified. They are, very likely, a smaller variety, living upon local food that is in such ample supply they have no need to migrate, every month or two, to find a store suitable to sustain the young of a large city. Such inaction would demand less swiftness, strength and wariness to avoid their numerous enemies—animals, birds of prey, and

man with his gun, his axe to fell the trees, and his nets to ensnare the parent birds.

The primitive inhabitants of our country, the Indians, no doubt, welcomed these pigeons, when they returned in spring, and regaled themselves upon the fat squabs for a few days; but they were unsuited for their steady diet and the Redmen soon tired of them. They would be unable to kill many of the adult birds with their primitive weapons. They respected the nesting ground and spent much time in slaying the enemies of the birds that gathered in great numbers to gorge themselves upon the young birds, as they fluttered to the ground, when learning to fly.

Then the White men came, with no legends of gratitude for a benevolent incarnation; no sacred regard for the feathers, to wear as head-dress, ornament or talisman to avoid the mysterious confusion on the way to the hereafter, that bare heads should suffer, among the shades of departed. Their legs were not bare in honor of the sacred bird that had endowed Redmen with incarnation, yielding bodies for the children, as fast as they were needed, in their old piety. Firearms, snares and great netting traps were used to get the parent birds. With axes they cut down the trees and took the squabs by tons, and tons.

There are camp-fire stories, galore, of the carnivals of the slaughter and the orgies of the feasts, when the day's work was finished, that are better buried in the oblivion of silence, as we draw the veil over the crime of extermination that befell God's own messenger to

children of the forest. For swiftness and endurance; for mystery and mysticism, the Indians venerated passenger pigeons, above all visible and animate beings.

Their numbers fell off approximately, at the rate of ten millions each year, until, at last, only one great city existed, and that gathered in Potter county, Pennsylvania, in 1886, centered on Pine Creek, the Tiadaghton of the romantic Indian legends. Jim Jacobs, the Seneca bear hunter, was recognized as he returned from the celebrated last stand of the Passenger Pigeons. In sorrow his shade then slept with the ancients.

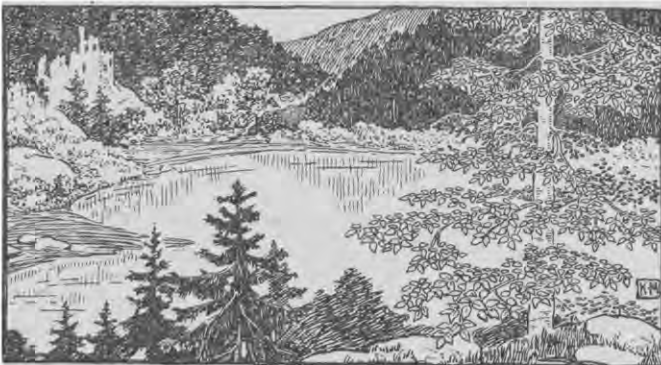
The story has been told; why repeat it? Men gathered together; from the tides of the sea to the great prairies they came. All night guns boomed among the trees. The moon was red in the clouds of powder-smoke that arose. The Indian hung his head in anguish; then crept away to his fate. Next day no pigeons remained—whither?

Restoring the Forest—Vision and Prophecy

As written in 1904, after reviewing the region, in the chapters in "The History of the Lumber Industry in America," by John C. French, we find the following:

"No effort has been made to preserve or renew the forests of the Allegheny valley, and the streams have shrunk to mere creeks or dry beds of sand and gravel

in summer. The Allegheny, that once was large enough to promise navigation, is transformed to a valueless water course for this generation. When the waste places of the hills and valleys shall again become the beautiful forests that once crowned them, the streams will assume their former volume of water; for the rainfall will remain longer in the cool embrace of the forests, to feed the innumerable springs that break forth from the rocky cliffs to irrigate the slopes and supply the streams. It is estimated that only one-half of the land that constitutes the Allegheny watershed is used or needed for agriculture. The remainder is now a waste for briars and brush, or partly grown over with ferns and grass, although in many places foreshadowing a luxuriant second growth of hardwood and giving evidence of what the reforestization might be under the skill of a forester, applied to the region."



CHAPTER IV

In Pennsylvania and Elsewhere—A Tale of Reliable Observations by John Lyman, a Pioneer

IN the annals of Potter county we find that settlement was made first in the vicinity of Coudersport, and at Roulette and at Burtville, in 1804. In the spring of 1805, late in May, a hard freeze killed all the crops and the forlorn pioneers had no seeds to replant them in their gardens and meagre fields. Floods in all the streams made it impossible to cart seeds from Jersey Shore, on the Susquehanna. John Lyman, a youth of 18 or 19 years age, offered to go by boat, down the Allegheny to Olean, or Hamilton as it was first named, where Adam Hoops had started a settlement in 1803, to get some seeds for their urgent need.

With a companion he started, at once, with food for the trip and money to buy seeds. Seven miles below Coudersport, at the mouth of Trout brook, they landed and found an Indian family, planting corn in a narrow field on the river bank, which, with the Indian cemetery, half a mile below, upon a high gravelly bank, and a few deserted lodges, was all that then remained of the Seneca's outpost and hunters' town of Allegheweo.

At a later date Mr. Lyman bought and cleared a farm there, where he spent the remainder of his life. In 1866 he told this story, and many others, to the writer, in great detail, as we saw thirty Senecas from

their reservation in Cattaraugus county, New York, encamped upon the site of the abandoned town, during the pigeon nesting near there. The Indian cemetery was made by platforms in the trees. Afterward Mr. Lyman buried the bones, parched corn, arrows, bows and ornaments of the Indian dead in the gravel, near the river. It has been enlarged and incorporated as the John Lyman Cemetery, and it is the principal place of interment in Roulette township, to this day.

In late May, 1805, John Lyman bought several hundred squabs of the Indians to take to Olean and barter for the seeds he was in search of; for there was a nesting then, near there, along Reed's Run and on the hill west from Point Lookout, where the canyon of the Sinnemahoning was overlooked for possible intruders from the south. Smoke from their camp fires would betray their forays, for about fifty miles, to the Seneca scout and he would paddle down the river to Tunungam, their chief town on the Allegheny, nine miles below Olean, opposite to the mouth of a creek, now named Tuna Gwant, flowing past the city of Bradford and thence to the river. The Senecas would then be ready to defend their hunting grounds, when the intruders arrived.

The first night was spent by John Lyman with Cyrus Turner, at his home in a hollow buttonwood tree on the left bank of the river at Voemont—Wailing Hill—and he went through to Olean the second night, where he sold the squabs; but found no seeds and continued

down the river to Warren, Pa., calling at Tununguam on the way, where he became acquainted with John Titus, the young chief who led his braves, 1814, to Lundy's Lane at Niagara Falls, Ontario, in one day—80 miles—and joined the fighting Americans at sunset, the record for infantry; and also stopping at Cornplanter's Run in Warren county, where he met John O'Bail, known as Chief Cornplanter, the friend of the whiteman.

He found that Captain Warren had been to Pittsburg with rafts of pine lumber and, upon hearing of the freeze up the river, had hustled a boat load of fresh seeds to Warren, which had just arrived, and Mr. Lyman procured all he required and then began his arduous return trip—100 miles up the Allegheny. With help of Indians the canoe, loaded with seeds, was poled and, in swift places, hauled by towlines, back to Allegheweo, in fifteen days, and by oxen, on sleds onward to Coudersport, and beyond, to Lymansville, where all the gardens were replanted by the 24th of June, and the ruined corn fields sown with buckwheat, on and before July 4, by the rejoicing settlers.

John Lyman told the story of the flocks of pigeons he had seen every day and of twenty colonies, in nesting valleys along the river, that he heard of from Indians, and estimated that these twenty wards each held a million adult birds—20 millions in all.

Fireside speculations, in doubtful tones, were rife for five years, until a nesting city along the Allegheny river was reported in 1810. Then John Lyman and

Francis King of Ceres made the trip over again, by canoe to Cornplanter's town; thence on foot, returning across the segment of a circle made by the river in its northward sweep through fifty miles of New York; thence southward again into Warren county, Pennsylvania. They went up Sugar Run, near the boundary line between Warren and McKean counties, to the magnificent beech timber around Marshburg; thence down to Kinzua Creek in Lafayette township (which was presented to Marquis de Lafayette in 1824 by William Bingham of Philadelphia, when the distinguished Frenchman revisited us. It was parcelled and sold to settlers, at a later date, after a forest road had been made through it, from the Clarion river valley to the Allegheny at Kinzua, Pennsylvania). They went up the Kinzua valley, crossed the hills to Colegrove; thence through Norwich township and down Parker Creek in Liberty township; thence up Heath Creek in Keating township to the Lookout and down Reed's run to the Allegheny river, in Roulette township, and up the river to Coudersport, Pa.

They saw pigeons all the way, in that vigorous hardwood belt, beech predominating, and visited fifteen nesting colonies; besides hearing of five colonies north of the Allegheny in Cattaraugus county, New York, which they did not visit. They decided that the estimate of twenty million adult birds in the Allegheny nesting city of Passenger Pigeons was conservative for the year of 1810. During the same month reliable observers have recorded other pigeon cities of equal pro-

portions, viz: On the east slope of Appalachian mountains, in New York and Pennsylvania; in Indiana and Ohio and two cities in Kentucky, one of which is described by the great Audubon and the other by the equally scientific naturalist, Alexander Wilson. That is the data for approximating these birds at one hundred millions in 1810, which was recorded in each locality, independently, by men who were unknown to each other. Each man of them, evidently, believed that he was telling a big story about all the Passenger Pigeons in existence being gathered together in the locality of his own observations.

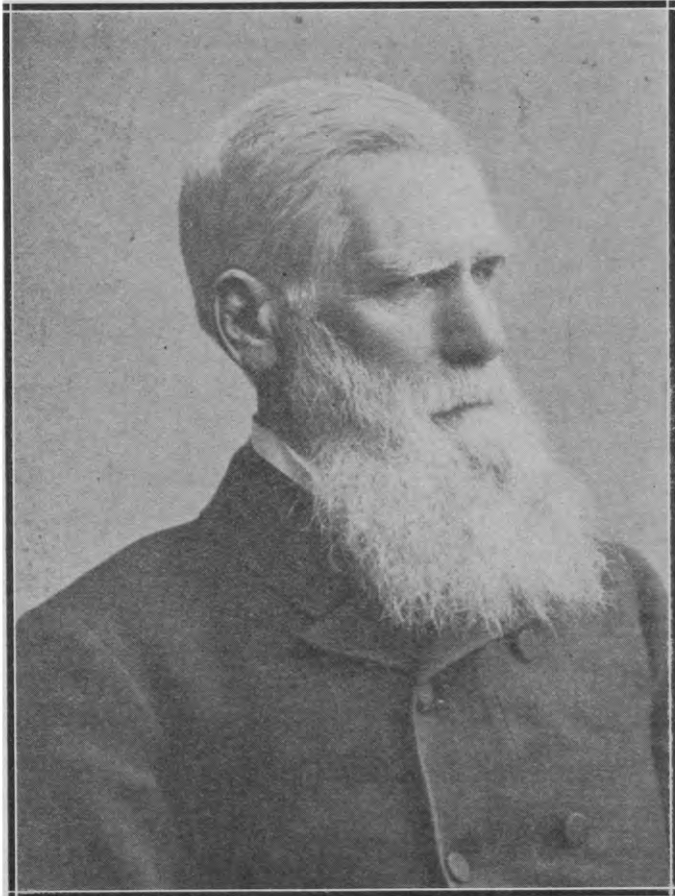
In his great book, "Origin of Species," Charles Darwin has given us comfort, in the following paragraph of Section 574, viz: "We need not marvel at extinction; if we must marvel, let it be at our own presumption in imagining for a moment that we understand the many complex contingencies on which the existence of each species depends. If we forget for an instant, that each species does increase inordinately, and that some check is always in action, yet seldom perceived by us, the whole economy of nature will be utterly obscured. Whenever we can precisely say why this species is more abundant in individuals than that; why this species and not another can be naturalized in a given country; then, and not until then, we may justly feel surprise why we cannot account for the extinction of any particular species or group of species." (In these chapters we are endeavoring to make plain the cause for development of the passenger pigeons in

Eastern North America; and they persisted so long in Pennsylvania and adjacent states of the Appalachian regions of mountains and valleys. At last they deserted their nesting place, undoubtedly, because the hunters had night-fires, appearing like a forest on fire.)

EXPLANATORY NOTE.

Tradition may be wrong, as to the second trip having been in 1810. Most likely, the second trip was made in 1814, the first one in 1810, as written history gives 1809 as the beginning of settlements in Potter County, near Coudersport, and 1810 at Roulette and Burtville, although the same authority says that Mr. Jaundrie had a shingle-covered and sided house, and a cleared field at Jaundrie's Creek, at the town of Shinglehouse on the Oswayo, in 1806; also that a Mr. Butler had lived there previous to 1797. Perhaps the renegade, Walter Butler, from Tryon County, New York, sought asylum there for a few years.





NEHEMIAH FRENCH

1818-1909

CHAPTER V

Observations in the Susquehanna Valley, Told by a Pioneer Octogenarian—Reveries and Reflections

DURING the month of April, 1880, I was with my grandfather, William French, in the Cowanesque valley, Tioga county, Pa. We walked together about ten miles, one day, to his old farm at Middlebury Centre, seeing a flock of passenger pigeons on the way. He was then 88 years old and was hale and hearty. His pigeon story was interesting, for it was of the spring of 1810, when he had been only a boy of 18 years and had made his first trip into Pennsylvania, and at pigeon nesting time. His father, Jeremiah French, had served through the Revolutionary War, and then traveled up the Susquehanna from his father's farm, near Shamokin, to Bradford county, where he soon married Miss Margaret Van Gorder and took her to a farm on the Chemung river, north of Elmira, New York.

It was an old Indian clearing, where my grandfather was born and remained until 1834, when he removed to the Pennsylvania forest, in Tioga county, and made himself a home for all his remaining years of life. He went to the Van Gorder home, on Towanda creek, during May, 1810, for a brief stay with his mother's people, and to work a while in a sawmill

for Amos Bennett. There he first met his future wife, Esther Martin, daughter of veteran John Gideon Martin, the scout of Oriskany battle, and at Burgoyne's surrender. He also became acquainted with Miss Anna Bennett, a little girl of 6 years, and a boy, John Grimes, who married her eighteen years later—the parents of Edwin Grimes, the great still hunter of deer in Potter county.

The two boys went to the pigeon city in the Susquehanna valley and tributary territory in Bradford, Tioga, and New York counties north of them, about fifty miles from southwest to northeast. The old birds flew westward, against the wind, to the beech forests, flying low and fast. They returned, flying high and leisurely, to their nests. Those without nests roosted in the tops of the same or adjacent trees around the nesting colony they were attached to. Most of the nests contained two young pigeons, some nests only one, which flew to the ground before they were able to fly back into the high trees. The young birds traveled to the eastward or with the wind, picking up nuts, insects and everything they could eat; roosting in low trees till they were strong enough to fly back to the roosts, and then join the old birds in their flights to feeding places.

When the young birds fluttered from the nests in large numbers they started at once and kept going ahead, in spite of the wild animals and hawks that killed many of them. If they came to a road they crossed it; a stream, they flew over; or they fell ex-

hausted into the water and, flapping their wings, swam to the other shore and ran on until night. When their fat bodies were reduced and muscles grew hard they returned in flocks to find their kindred. The injured and weak birds remained behind, for the old birds waited only a day or two before they started to the next place selected for nesting ground. The weak remained, scattered through the forest and briar patches, until strong enough to join another migration or until they were killed by the enemies that sought them by day and by night.

When building their nests the parent birds selected a clump of evergreen trees—hemlocks and pines—by a little stream, with rising ground on the east side, building nests on all the strong limbs and branches, except a few near the top for the roosts of those not sitting on the nests, and even building many nests on the branches of the deciduous trees that were standing among the evergreen trees within the boundaries of each colony of nests—the wards of their city—and all the trees were loaded with nests, so that branches broke down, trees came crashing to the earth and the nests of eggs and young birds were destroyed. Wild beasts of prey devoured the young and fought over them through the night, making a hideous uproar, and owls and hawks attacked the old birds upon the roosts above the nests.

The farmers brought their hogs to the grounds and built log pens to keep them in, feeding them upon the young birds, or they turned them loose each morning

to gather up whatever could be found. Whole families came with barrels and salt; the young birds, from ten ounces to twenty ounces weight, were dressed, salted and packed in barrels and carted away to markets and for storing until needed. Many old birds were shot and disposed of until it seemed that only a few more migrated than came.

John Grimes and William French saw it all in that spring of 1810 from Towanda creek, Bradford county, Pa., to the Chenango creek, Broome county, N. Y., before those counties had all been created and named. They investigated and they marveled that there could be so many pigeons in all the world. They were so disgusted by what they saw and heard that neither of them ever went near a pigeon nesting city again. They sympathized with the Indians, who taught conservation of the young birds and protected them by slaying the wolves that howled around the nesting places—and held the parent birds sacred during the four weeks of incubating and feeding the young birds, killing for their food only the unmated and quiescent old birds and the young birds which fell from their nests prematurely.

They had learned that, when a colony was located, the nests were built and the eggs all laid and hatched within sixteen to eighteen days, and that later arriving parent birds established another colony far enough away to leave the first colony free to rear the young and depart, with no waste of time in waiting for the tardy flock. The passenger pigeon was a bird of free-

dom and was without arts of self-protection, other than their swiftness of flight and great multitude in one closely associated city, and in their ingenuity for massing great flocks in flight in narrow columns, in numerous strata, one above another, and moving rapidly in tandem, each flock following the one in front, making the same curves and identical undulations for the most part even to the turns and depressions of the leading flock in a brigade, caused by the swooping hawk and eagle on the front platoon that no longer menaced the followers.

In confinement they seldom raised any young and they rejected all efforts toward domestication, so far as they were made in northern Pennsylvania. They were unwarlike and sought only peace and plenty, to thrive and multiply to the limit of food reserves in regular rotation. They migrated to find their favorite food, as the snow line receded each spring; yet they perished from the earth, or they have adapted themselves to a different mode of living and in a new environment in which ornithologists have failed to recognize them, and have classified them under an alias.

We saw them feeding, chiefly upon the beech-mast, and yet geology seems to affirm that they lived in the cretaceous age, before beech trees had been evolved in plant form; why not re-adaptation?

CHAPTER VI

Some Kentucky Observations, by Alexander Wilson —Vivid Description of Sacred Pigeon Dance by the Indian Wolf Hunter Dan Gleason

DURING the month of May, 1810, the great ornithologist, Alexander Wilson, visited the Kentucky river to see a real nesting place of Passenger Pigeons. With great detail he described what he saw and heard there, and a few of his illuminating paragraphs will paint the picture as vividly as words can possibly reveal a panorama. He said:

“As soon as the young were fully grown, and before they left the nests, numerous parties of the inhabitants, from all parts of the adjacent country, came with wagons, oxen, beds, cooking utensils, many of them accompanied by the greater part of their families, and encamped for several days at the immense nursery. The noise was so great as to terrify their horses, and it was difficult for one person to hear another speak without bawling in his ear.

“The ground was strewed with broken limbs of trees, eggs and young squab pigeons which had been precipitated from above, and on which herds of hogs were fattening. Hawks, buzzards and eagles were sailing about in great numbers, and seizing the squabs from their nests at pleasure; while from twenty feet upwards to the tops of the trees, the view through the woods presented a perpetual tumult of crowding and

fluttering multitudes of the old pigeons, their wings roaring like thunder, mingled with the frequent crash of falling timber. For now the axe-men were at work cutting down those trees which seemed to be most crowded with nests of the young birds, and contriving to fell the trees in such manner that in their descent they might bring down several other trees. The felling of one large tree sometimes produced two hundred squabs, little inferior in size to old birds, and almost one mass of fat.

“On some single trees upwards of a hundred nests were found, each containing one young only, a circumstance in the history of this bird not generally known to naturalists. It was dangerous to walk under these flying and fluttering millions of birds, from the frequent fall of large branches, broken down by the weight of the multitudes above, and which, in their descent, often destroyed numbers of the birds themselves. I had left the public road to visit the remains of a breeding place near Shelbyville, on my way to Frankfort, when about 1 o'clock the pigeons which I had observed flying northerly the greater part of the morning, began to return in such immense numbers as I never before had witnessed. At an opening by the side of Benson creek, I was astonished at their appearance.

“They were flying with great steadiness and rapidity, at a height beyond gunshot, in several strata deep, and so close together that could shot have reached them, one discharge would not have failed of bringing down

several birds. From right to left, as far as the eye could reach, the breadth of this vast procession reached, seeming everywhere equally crowded. Curious to determine how long this appearance would continue, I sat down, with my watch in hand at 1:30 p. m., for more than an hour, but instead of diminution of this prodigious procession, it seemed rather to increase both in numbers and rapidity of flight; anxious to reach Frankfort before night, I rose and went on. About 4 o'clock that afternoon, I crossed the Kentucky river, at the town of Frankfort, at which time the living torrent above my head seemed as numerous and as extensive as ever. The great breadth of front which this mighty multitude preserved would seem to intimate a corresponding breadth of their breeding place, which several gentlemen who had lately passed through part of it, told me was several miles wide, and they estimated about forty miles long, in which every tree was absolutely loaded with nests of young birds.

“The nesting was begun about April 10th and all the birds left by the end of May. The appearance of large detached bodies of them in the air, and the various evolutions they display, are strikingly picturesque and interesting. In descending the Ohio by myself in February, I often rested on my oars to contemplate their aerial manoeuvres. A column, eight or ten miles in length, would appear from Kentucky, high in the air, steering over to Indiana. The leaders would sometimes gradually vary their course, until it formed a large bend of more than a mile in diameter, those be-

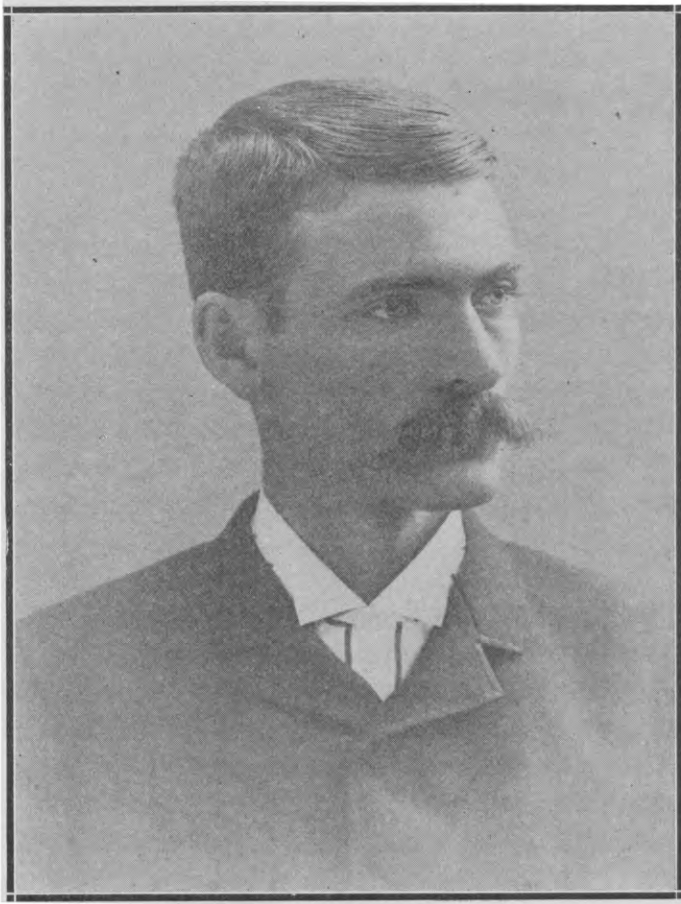
hind tracing the exact route of their predecessors. This would continue sometimes long after both extremities were beyond the reach of sight; so that the whole, with its glittering undulations, marked a space on the face of the heavens resembling the windings of a vast and majestic river.

“When the bend became very great, the birds, as if sensible of the unnecessarily circuitous course they were taking, suddenly changed their direction, so that what was in column before became an immense front, straightening all its indentures until it swept the heavens in one vast and infinitely extended line. Other lesser bodies united with each other as they happened to approach, with such ease and elegance of evolutions, forming new figures, and varying them as they united or separated, that I was never tired of contemplating them. Sometimes a hawk would make a sweep on a particular part of the column, when almost as quick as lightning, that part shot downwards out of the common track; but soon rising again, continued advancing at the same rate as before. This deflection was continued by those behind, who on arriving at this point dived down almost perpendicularly to a great depth, and rising, followed the exact path of those before them.”

Standing upon the flattened top of a high hill, overlooking the Allegheny valley, in 1870, Dan Gleason, the Indian wolf hunter, told me about the pigeons, which were flying past us then in many strata, some overhead

and many below us, in the valley between our hill and others, south of the river; with waving arms, swaying body and nimble feet he illustrated the sacred pigeon dance of the redmen in America, based upon the flight of their sacred bird; in soft cadences he sang the song of "Wah-ho-pah," and in solemn words explained the wonderful birds and their beneficence to his race, and to their ancestors when they began life upon the earth; how a warrior's hair must not be lost, for it represents the feathers of the sacred bird and preserves his soul for the immortal bliss of the Happy Hunting Ground. When the hair is lost there can be no blessed immortality, for on the journey after death they would become confused and take the wrong trail, followed by all who offend the Great Spirit—the trail that had no end and led to no place, an eternity of wandering. That was all the punishment the evil spirit, Hobomock, could inflict upon man.





JOHN C. FRENCH
From an Early Photograph

CHAPTER VII

Comments of an Eminent Observer, John J. Audubon, in Kentucky—The Green River Nestings

EARLY in May, 1810, John J. Audubon, the naturalist, reached the bank of Green river, in Kentucky, and described the nesting ground of the passenger pigeons he saw there in the following words:

“It was, as is always the case, a portion of the forest where the trees were of great magnitude, and where there was little underwood. I rode through it upwards of forty miles, and found its average breadth to be rather more than three miles. My first view of it was about a fortnight subsequent to the period when they had made choice of it, and I arrived there nearly two hours before sunset.

“Few pigeons were then to be seen, but a great number of persons with horses, wagons, guns and ammunition had already established encampments on the borders. Two farmers from the vicinity of Russellville, distant more than a hundred miles, had driven upward of three hundred hogs to be fattened on the pigeons that were to be slaughtered. Here and there the people employed in plucking and salting what had already been procured were seen sitting in the midst of large piles of birds. Many trees two feet in diameter I observed were broken off at no great distance

from the ground, and the branches of many of the largest and tallest had given way, as if the forest had been swept by a tornado. Everything proved to me that the number of birds resorting to that part of the forest must be immense beyond conception.

"As the period of their arrival approached their foes anxiously prepared to receive them; some were furnished with iron pots containing sulphur, others with torches of pine-knots; many with poles and the rest with guns. The sun was lost to our view, yet not a pigeon had arrived. Everything was ready and all eyes were gazing on the clear sky, which appeared in glimpses amidst the tall trees. Suddenly there burst forth a general cry of 'Here they come!' The noise which they made, though yet distant, reminded one of a hard gale at sea, passing through the rigging of a close-reefed vessel.

"As the birds arrived and passed over me I felt a current of air that surprised me. Thousands were soon knocked down by the pole-men; the birds continued to pour in; the fires were lighted and a most magnificent as well as wonderful and almost terrifying sight presented itself, the pigeons arriving by thousands, alighting everywhere, one above another, until solid masses as large as hogsheads were formed on the branches all round. Here and there the perches gave way with a crash and, falling on the ground, destroyed hundreds of birds beneath, forcing down the dense groups with which every stick was loaded. It was a scene of uproar and confusion. No one dared venture

within the line of devastation; the logs had been penned up in due time, the picking up of the dead and wounded being left for next morning's employment.

"The pigeons were constantly coming and it was past midnight before I perceived a decrease in the number of those that arrived. Towards the approach of day the noise in some measure subsided. Long before objects were distinguishable the pigeons began to move off in a direction quite different from that in which they had arrived the evening before, and at sunrise all that were able to fly had disappeared. The howling of the wolves now reached our ears, and the foxes, lynxes, cougars, bears, racoons and opossums were seen sneaking off, whilst eagles and hawks of different species, accompanied by a crowd of vultures, came to supplant them and enjoy their share of the spoil."

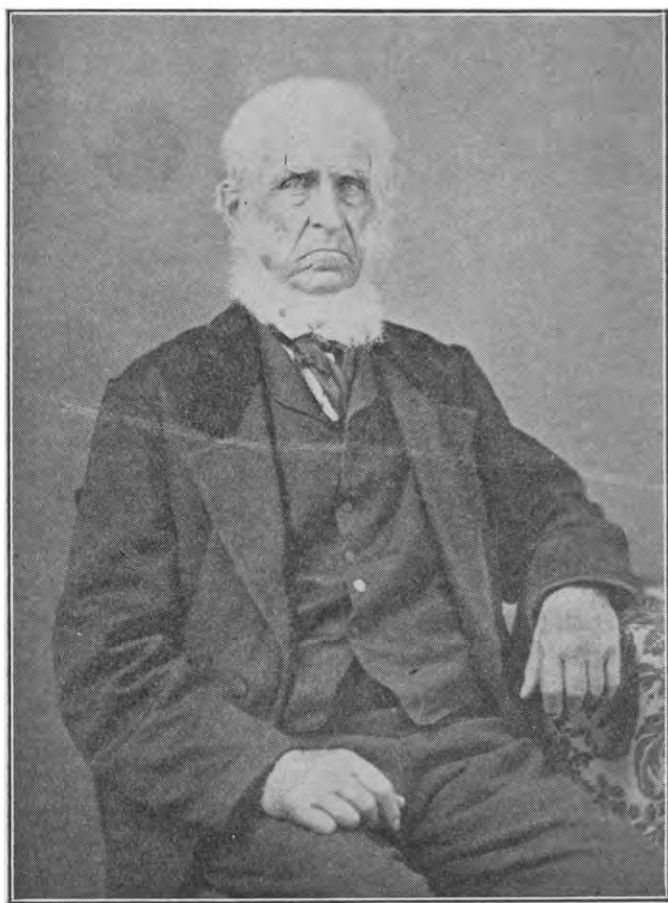
At the date specified above one of the parent birds would have been quietly sitting upon the egg in the nest, if there was one only, as some have said, or the eggs, if more than one, as many reliable men aver, having seen two young birds in most nests at the nesting colonies they have visited, while the squabs remained in the nests; so Mr. Audubon saw in the air at one period only about half the adult birds, for at nesting times the sexes were divided, flying for food in flocks of hen-birds at one period of the day and the cocks in other flocks after the hens had returned to take their places on the nests. Mr. Wilson described the nesting he saw, on Kentucky river, a hundred and fifty miles

away, about two weeks after the eggs were hatched and the squabs ready to leave their nests. Mr. Audubon did not wait for the squab period, but floated down the river in his boat to the Ohio, contemplating the flight of pigeons above him—rising from the horizon, “sort of a columbine Vesuvius”—and relieved his feelings by writing a description of the appearance in the heavens, every day of his trip to Evanston, Indiana, similar to what has already been quoted from Mr. Wilson in a previous chapter, upon a similar observation.

Mr. Audubon concluded his notes with the following words:

“But I cannot describe to you the extreme beauty of their aerial evolutions when a hawk chanced to press upon the rear of a flock. At once, like a torrent, and with a noise like thunder, they rushed into a compact mass, pressing upon each other towards the centre. In these almost solid masses they darted forward in undulating and angular lines, descended and swept close over the earth with inconceivable velocity, mounted perpendicularly so as to resemble a vast column, and when high were seen wheeling and twisting within their continued lines, which then resembled the coils of a gigantic serpent.”

The birds flew with such martial exactness, according to C. H. Shearer, of Reading, who painted the great picture “The Flight of the Wild Pigeons” that when they became too compact or congested, numbers of them dropped in great spirals and resumed the flight at a lower strata.



JOHN LYMAN

1786-1873

With that much we must be satisfied, so far as clumsy words in ink are concerned. From Wilson to the author of "Juniata Memories," and then back to Audubon, who admits that he cannot "describe the extreme beauty of their aerial evolutions"; what these authors cannot describe about birds in words we must avail ourselves of imagination's artful aid to comprehend, or adopt the poetic plan of the Indian and gesture, dance, chant and pray, in our fervor to convey the ecstasy we feel at certain sublime moments of our experience. Those who have never beheld a flight of wild pigeons have never had an opportunity of developing their faculties to comprehend such a sight. They are also unable to assimilate most of the efforts to develop them than can be made through the medium of pen and ink.

All that our national emblem means to our patriotic young Americans now preparing for war, the passenger pigeons conveyed to the Indian, and more. They were his emblem of incarnation and hope of a blissful immortality; his ideal of freedom, and he emulated their swiftness and their energy. In their vicissitudes of life he saw the omens of his own struggles with all of his enemies in the forest. Against his enemies he fought, believing, like Hector, that "The best of omens is to defend one's country," and he slew the enemies of his patron bird, hoping to perpetuate them, and enable them to increase and protect and cheer his children. Something of this commendable spirit was felt by the ornithologists as they studied the pigeons and their

nesting cities. The ode to our flag by Mr. Berton Braley, expresses a part of all this idea :

The Flag.

Against the skies Old Glory flies,
It never looked so bright,
For now it seems as if it gleams
With some strange inner light ;
As though each thread of white and red,
Each filament of blue,
Were spun of spiritual fire,
The flame of that fine high desire,
Which thrills the nation through,
The flag on high it greets the eye
And grips our hearts somehow
Though it has passed through struggles vast,
Its proudest hour is now ;
Now 'tis unfurled to show the world
That willingly we give
Our lives, our all to Liberty,
That after we have ceased to be,
The flag, the flag may live.

CHAPTER VIII

The Romance of Numbers and Testimony of Living Men as to Reality of the Figures Considered Marvelous

IT has been said by a great author that more romance can be found by intelligent study of a mass of figures, set forth by a statistician, than in any other form known to the writing art. The magic measures in numbers, orderly arranged in columns of figures, appeal more strongly to many mathematicians than do the resounding rhythms in Homer's poems. The story of the Passenger Pigeon is neither romance nor poetry; yet we must not ignore the figures entirely. The pioneers of Potter county were incredulous of John Lyman's report in 1805. They could not believe that twenty millions of the birds existed along a hundred miles of the upper Allegheny at that time. To them it was only a romance, for five years, until they returned, and experts reported that it was history and conservative.

Of the Susquehanna river nesting city there was no cordial acceptance of what the two young men, William French and John Grimes, reported that they had seen; that millions of the fat squabs had been melted down for their fat alone; that many barrels of the oil went down the river in boat-loads. Most people doubted

that twenty millions of adult birds had been in that region in 1810; or at any other time. To them it was romance. In February, 1810, the great flight into Ohio and Indiana, where they nested in April and May of that year, was reported by Alexander Wilson who approximated their number in the following manner: Taking the breadth of the great column of pigeons that he described flying over the Ohio river to be only one mile, its length to be two hundred and forty miles, and to contain only three pigeons in each square yard, (taking no account of the several strata of birds, one above the other), and that each bird consumed half a pint of food daily, the amount would be seventeen million bushels of food for each day.

John J. Audubon made a calculation, based upon two birds to the square yard, and a similar daily ration for each bird, in his report, using approximately the same breadth and length of the column—all of which assumptions he believed to be conservative—and estimated that eleven million bushels of food would be required by them for one day. This means fourteen hundred millions of birds in the Green river flights; about an equal number upon Kentucky river, at the same time; and the flight to Ohio and Indiana, in February, twenty-one hundred and seventy-six millions more, making altogether, nearly five billions of birds in the three states along the Ohio. Some people consider these estimates as absolutely poetical, or founded upon a “poet’s license,” at any rate.

The authors were absolutely candid, in all their

conclusions, and, no doubt, they got their estimates reasonably correct; but neither knew that Kentucky held another nesting, than the one he saw, at the same time, nor that two other cities were, at the same time, being seen by other men in Pennsylvania. There may have been several more nestings or big roosting cities, waiting for the beechnuts to sprout, in some northern forest; and other millions of birds scattered through the forests of the south. The young, the males, and the females had a curious habit of dividing into three separate flocks. When the young leave their nests they shift for themselves, passing through the forest in search of their food, hunting among the leaves for mast, where their parents made certain, in advance of nesting, that plenty could be found; and, by feeding in distant forests, preserved feeding grounds for the young to begin upon. They appeared like a prodigious torrent rolling along through the woods, every one striving to be in the front.

There were, probably, four broods each spring, between Alabama in the south, beginning about February, and the Hudson bay forest region, late in July and August, when their favorite food would be ready for them in these regions, and for each migration an intermediate date, allowing for about seven weeks between the beginning of a brood and the succeeding one, although five weeks were sufficient time for a brood near the former one. For building the nest and laying the eggs, two days; incubation, fourteen days; feeding the young birds, sixteen to eighteen days.

Their migrations usually required about two weeks for getting started upon the next nesting enterprise. When the young birds left their nests they were extremely fat, and their flesh delicious, only, as every one ate pigeons all day, and every day, they palled upon the taste, and campers soon began to look upon squabs as rather coarse and common fare. However, everybody was ready to eat squabs again when the birds returned.

The controversies over the questions in regard to whether a single egg, or two eggs, constituted the production for each nest and each incubation were a great surprise to most men of experience in the nesting colonies of passenger pigeons. It was the common knowledge, among both white and red men, that the hen bird should lay two eggs for a setting; but very often she delayed, too long, the work of building a nest, and an egg would be dropped while she wove the materials that her mate brought together. In case of such accident one egg only would remain for that nest, and the others that had lost an egg in such manner. Often nests were precipitated to the ground by the wind, and another hastily built upon each location, where one egg would be laid and incubated alone. Under the trees, during the first days after nest building started, there were thousands of eggs testifying plainly to these casualties.

William Hazen, a Civil War veteran, who resides at Roulette, Potter county, Pennsylvania, remembers going to the nesting colony, in 1860, upon Parker Run, Liberty township, McKean county, to cut down the

trees and get the squabs. Two young men carried axes and another carried a double-barrel rifle. When they felled their first tree, the young birds flew from the nest, as the tree began to fall, and fluttered away to a great distance, so they could not be found. Thereafter the axemen pounded upon a tree and caused the young birds to stretch their necks and show heads above for the marksmen to cut off with his bullets. There were two young birds in most of the nests that they shot into for squabs that day.

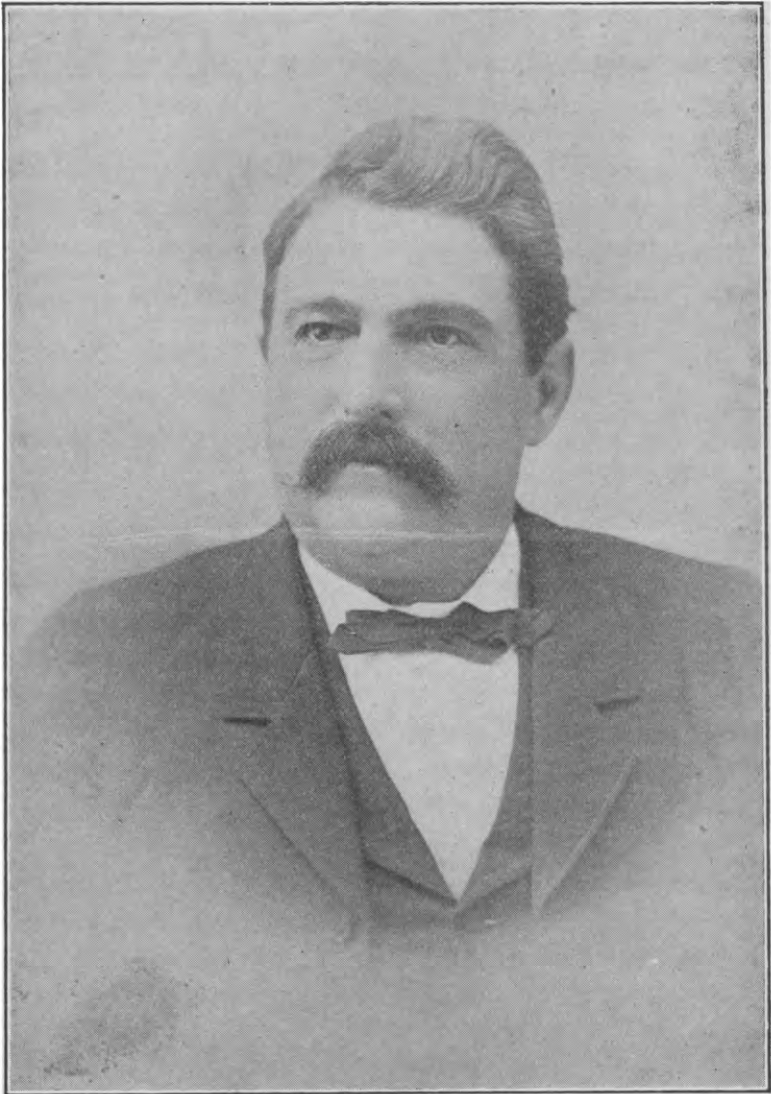
William Lehman remembers visiting the nesting colony on Bell's Run, in McKean county, in 1870, where he climbed some small trees to get live squabs for his uncle, Herman Lehman, who had built a park for them to be domesticated in. Nearly every nest held two squabs and he got fifty fine young birds. Herman Lehman's park in Ulysses township, Potter county, was large, with a creek running among the trees of the enclosure; the birds thrived; but they bred very little in confinement; and never laid more than one egg to each nest. Many times a nest was constructed by a pair of the birds, only to be abandoned and no eggs laid in it, or when an egg was laid, it was not incubated.

CHAPTER IX

The Rate of Reproduction and Decline—Passing of the Beech Forests—Indian Legend of Hopah, the Pigeon

WITH the pigeon family the general rule is to lay two eggs for each brooding, but variations are common, depending upon the abundance or scarcity of the favorite food of each variety of these prolific birds. Passenger Pigeons seem to have been adaptable to all the conditions of their habitat and varying environments; laying two eggs when plenty of beechmast was available, within a flight of fifty or sixty miles of their nests, for two weeks of feeding the young birds; and, generally, one egg when longer flights for the food would become necessary for a considerable part of the time. They would find the food required for three or four nestings each spring, as a rule, between northern Georgia, Alabama and Mississippi, at the south, and the northern limits of the beech tree, near James Bay, at the west; thence east along the Laurentian highlands to near the mouth of the St. Lawrence river and Chaleurs Bay, in Quebec; thence southward through New Brunswick, Maine, New Hampshire and Vermont, into northern New York.

In these broad forests, we may be certain, were to be found hundreds of millions of bushels of beechnuts,



W. WALLACE BREWER

every spring, as they unfolded their two fat leaves, upon slender stems that were anchored in the rich leaf-mold soil of such a forest, in primeval conditions. We may fairly assume that from four to six young birds reached maturity from each pair of the parent birds, to return to the southland, each autumn, ahead of the snow and frozen ground of winter that made their food impossible to find. Before the nuts fell to the ground, through action of frost and wind, the birds would beat all the nuts from a tree, with their wings, in a few minutes, while all was a scramble, both above and below, for the same, making the forest roar with the sound of their thunder. Their increase, no doubt, was approximately in ratio of food available, each year, in their pilgrimage through our northern region—the homes of their Indian devotees.

From the criterion of greatest utility the whiteman, certainly—the later inhabitant, with domesticated poultry—exceeds his predecessor, by many multiples, in efficiency and progress; but the Indian, the Pigeon, and the Forest were balanced in equal and horizontal scale, upon their tranquil existence in their worlds, where each individual met his foes in personal combat, for place, for food, for existence, and for freedom to dominate a restricted circle, wherein each maintained a place by constant vigilance and preparation to resist the natural enemies of his species. The white men came, and the rich soil under the beech forests became fields for their enjoyment and profit. The pigeons declined in ratio with the receding forest—and food supply.

They were hemmed in. They could not reproduce themselves on other food. The attrition progressed and their lines of supply were shortened, as the cleared fields became more numerous, or as forest fires destroyed the prolific beech trees.

Where the beech forest flourished the soil was most fertile and easily cleared for the first crops of agriculture; grass for pasturing the domestic animals upon grew luxuriantly among the stumps of trees removed; the stumps soon rotted and were readily removed for better crops and convenient cultivation; the soil had been made rich by the detritus of tree-life that had been discharged yearly for centuries, and the farmers coveted the land; so the beech forests became smaller and more exposed to rapacious man. Three million farms were cleared in the forests where their food grew most abundantly and the birds fell as victims to their direst foe, the men who occupied these farms and sought a profit from the nurseries of the passenger pigeons to compensate them for the crops that had been devastated in their fields by the hungry flocks.

The farmers were never friendly to these questing birds when they returned, as the Indians had always been. No doubt, the passenger pigeons were the chief agency, in some mysterious way, for spreading the seed germs of the beech, as another, closely allied variety of pigeons, did for the nutmeg trees, in another part of the world. The passenger pigeons shrank in numbers, as did the bison on the plains; but no one realized that a race was being exterminated; and even

now, after thirty years, few old forest men can believe that they do not exist in some hidden forest, from which they will return when the growing beech trees begin to yield their fruit, as was done in former times. The decline was slow at first; but from 1865 to 1886 it was remarkable—and then, the deluge!

Many explanations have been suggested, such as finding a few hundred drowned pigeons along the Atlantic coast, indicating that a flight had been overwhelmed by a tempest and the birds all drowned in the ocean. A similar report from the Great Lakes. The old men shake their heads—they do not believe that the birds we knew were exterminated in such manner. The theory of a fever, caused by food-bound crops, when they left the last known nesting ground, in Potter county, is unsatisfactory. The nests had scarcely been completed when the pigeons fled. No young birds were expected to feed upon the curds in the parents' pouch, or crop, for two full weeks, at that period. The theory is as unsatisfactory as the others have been. Once we heard that they were in Mexico, feeding upon a different food; then that they were in Columbia, clothed in gorgeous plumage, as became a tropical bird, and last that they were in Chile, in the same plumage they wore when here, with irridescent hues that made them familiar to a Wisconsin expert—as all old-time pine timber cruisers were. None of these explanations satisfy our question. We are still speculating—and questing—about it.

Two young men climbed Tuscarora hill, north of the Cowanesque, to find the "top of the world." That was in 1836 and they were about 17 years old. One was Nehemiah French, my father; the other was John Churchill, my mother's eldest brother. They decided to inquire of Chingachkung, the old Indian at Academy Corners, how to find the peak they sought. The Indian pondered a while and then began his legend: When the world was young, Moqua, the ruler of the rivers, dwelt there and raised his children. Cowan, the delighted, departed toward the morning, until he met and wedded Tioghnioga, near our village. Genesee went toward the pole-star, fell over the cliffs and, at last, leaped into the arms of the Almighty, Ontario; Oswayo went to the northwestward and wedded Honeyoye; Ohe-Yu now called Allegheny departed on a long journey, toward the evening star, where he met and wedded Gahela, daughter of the mighty Monon of the southern mountains. Tiadaghton went toward the south and was taken for wife of Shamoque, brother of the crooked river—the Susquehanna. The beautiful Hopah, the pigeon, chose to wed with Manitto, and she dwelt everywhere. Then the boys found the top of the world, where the rivers start from.

CHAPTER X

Nesting Cities and Extinction of This Bird—Comments of a Forester on Signs of an Approaching Nesting

THE last pigeon nesting in Pennsylvania occurred in 1886, as has been already emphasized, although there may have been many isolated smaller groups that brooded within our extensive forest areas, since then. The cities in 1866 and in 1870 are remembered very distinctly by many men living in Potter county and elsewhere. Each of those years a colony was established about three miles east of my farm in the Allegheny river valley; and they flew past every day, to distant feeding grounds; the hens one day and the cocks the next day, flying rapidly, and returning toward night, flying high, above the hills. There were other feeding grounds, to the south, and those that did not make the longer flight, each alternate day, into Forest county, while the squabs were being fed, made the shorter flight to get food for individual requirement. On each morning the valley, a mile wide, between the hills, was filled, strata above strata, eight courses deep at times, for about an hour, with the multitude of birds flowing westward, at the rate of about a mile a minute, going after food.

The roar of wings was like a tornado in the treetops and the morning was darkened as by a heavy

thunder shower. The lowest stratum of birds was just above the orchard trees and many young men, with shot-guns, fired into the passing flocks, as they came into range; but they obtained few birds in that manner. The speed of the flocks made of their feathers coats of mail, impervious to small shot, their heads alone were vulnerable, in a flock coming toward the shooters. Those who shot into the rear of the birds that had passed them, killed many birds which were usually precipitated into fields of the farms beyond, or into brush and briars, far away; so, many dead birds were never found, for they hid away, in their death-struggles.

Their colonies were generally regular in the border lines, being parallelograms, squares and circles, even to leaving the branches of an occupied tree that was outside the boundary line, bare of nests; while inside the boundary lines the branches were all covered with them, except a few near the tops of the trees upon which the male birds roosted to guard the females sitting on the nests below. The venerable Daniel Ott, of Snyder county, has been frequently quoted on the fact that, "The nesting grounds were arranged with military precision."

Some of the facts of pigeon nesting cities have been clearly and plainly stated by Mr. C. W. Dickinson, of McKean county, which are quoted below: "There is only a small percentage of the American people of to-

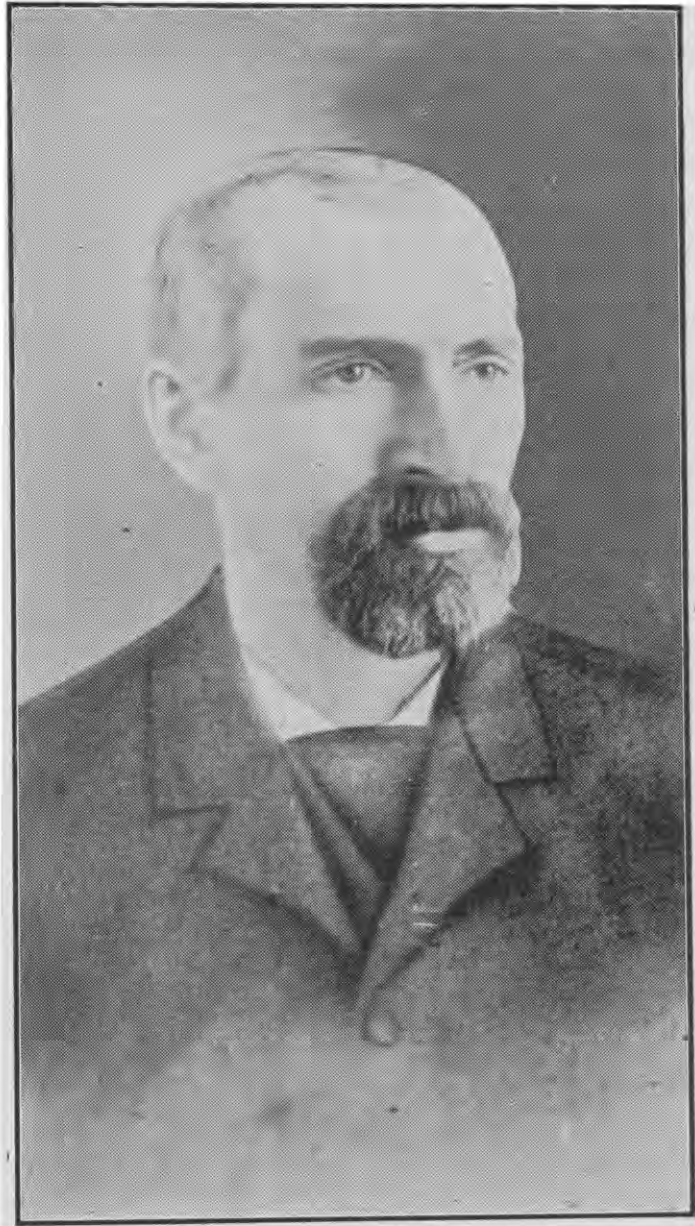
day that can imagine what immense bodies of pigeons there would be in a large nesting city. The nesting we had in McKean and Potter counties, Pennsylvania, in 1870, which was the largest in this locality since 1830, was from one-half mile to two miles wide and about forty miles long, running through an unbroken forest. The direction of the line was nearly east and west, a zigzag line to keep near the main range of mountains that divides the waters of the Allegheny and the Susquehanna rivers. The male birds help build the nests; as a rule, one egg is laid in each nest. The hens sit on the nests over night, while the males roost in the nesting or in adjacent trees. Now the birds are divided into flocks of males that go for food by themselves, and the females go in flocks, for food, by themselves. The males establish the line of flight from the nestings, sometimes going sixty or seventy miles for their food. The males take the places of the females on the nests while the latter go in search of food, and return to occupy the nests by night.

“It takes about fourteen days for the eggs to hatch, and in about fifteen days after hatching, the young birds are left to their own fate. The young birds are fed all their craws can hold and they are so fat, when left, that they can't fly much for three or four days. As soon as they get full use of their wings, they know where to go, for they then follow the same line of flight the old birds took a week before. The old birds

do not feed near the nestings. That food is left for the young to live on while getting the use of their wings. The first twelve days of a young pigeon's life, it feeds exclusively on curds that form in the craws of both the male and female parent-birds. When feeding the young, the old bird draws head and neck down close to the body, opens mouth wide, then the young bird sticks its beak down the old bird's throat and eats curds from the parent's craw.

"This curd does not mix with the old bird's food, being in a container by itself, which gives way after twelve or thirteen days from the day of hatching the young. After that the squabs get beechnuts and other seeds mixed with the curd. Pigeons nested in Pennsylvania, only in the spring, after a good crop of beechnuts the preceding autumn.

"The writer's home was near these nestings. From one-half mile to four miles we would find eight or ten colonies of nesting birds, and we have been in six or eight that were farther away. We have tried not to enlarge this account in any manner for no one knows what a pigeon nesting is like, until he has visited one. The birds build nests in every tree that stands on the territory the nesting covers. Undoubtedly there were three times as many nests in a hemlock tree as there were in a hardwood tree. We counted fifty-seven nests in a large birch tree. In a hemlock there are so many more places for nests; while the boughs were so



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thick, it was not possible to count them correctly. To answer the question of what became of them: There were millions of them caught in nets and shipped to the large cities. Still there were millions of the birds here again in 1886, which was the last body of them that visited this state. A few small flocks passed through this locality since then. We saw a flock of about 100 birds in September, 1905, and a lone pigeon in 1906.

"In April of 1886, they returned for the express purpose of nesting. The beechnut crop of 1885 was very large. That was what brought them here. When food was real plentiful they have been known to nest three times in a single season: First, in the latter part of March; second, in the early part of May; and third, about June 10. When they came here to nest they were scattered over three or four counties, roosting wherever night overtook them; but for a night or two before they began building nests, they roosted in one large body.

"Another sure sign, was the little white strings that came from the front end of the breast and connected with the craw.the natural feeders that form the curds for the young to feed on. These two sure signs were in evidence, in 1886. The fine white strings had been visible for three days, on the second night of the big roosting on the west branch of Pine Creek, in Potter county; when these birds were driven out of

Pennsylvania, never to return. Thirty or forty men and boys went into the roosting with guns. At 9 p. m. they began shooting into the treetops. as long as they could hear a bird fly among the branches. Then, gathering into small groups, they made camp-fires and waited for daylight, so they could find the dead and crippled birds under the trees.

“That was the death-blow to pigeons in Pennsylvania. They left in the night, which was clear, with a full moon; so the birds could see where to go. in a northerly direction across the state of New York and reach the big forests of Canada, the course they always took, when leaving Pennsylvania, in spring or early summer. Being driven out, on the eve of starting nest-building, suggests that before they reached their destination, the hens dropped their eggs on the way, or before nests could be prepared for them. Therefore there were no young birds to eat the curds which had started to form, and would keep on forming until Nature’s law had completed her work.

“There being no young birds to eat the curds, the craws of the old birds would fill up with them and they would starve to death; or something like milk-fever would ensue, which would be fatal to the old birds that had been about to nest. There were always many stray birds with a nesting city, either too young to nest, or lost birds that had happened to meet and join the main body; and these would have no curds in their

craws. So, we can't believe that the passenger pigeon has become extinct. But they will never nest in Pennsylvania again; for there is not enough forest left for a body of pigeons to nest in." That is the conclusion of about all the older men who were familiar with pigeons.

The pigeons did not all leave Pennsylvania, as above stated; for Mr. Oscar Huff, of White Deer, Pennsylvania, states that they had a nesting, from May to late in June, 1886, near Blossburg, on the timber land of Drake, Cummings & Company; and thousands of squabs were killed with poles in the little trees during the bark-peeling time of that year.



CHAPTER XI

Present Day Economics and Influence As Food Supply—Sketch of Indian and Pioneer Life

SPECULATION about what became of the beech-nut eating passenger pigeons now seems to be futile. They are extinct, because the food they ate, and which developed their chief characteristics, does not grow in sufficient quantities upon the face of the earth, in any locality, to sustain a colony of them through a breeding period. In another environment they would soon adapt themselves to new conditions and become a new variety of pigeons. They were so similar to the pigeons of other parts of the world, except for their chief food requirements and their methods of life to avail themselves of it, to the greatest possible extent; and their manner of reducing damages from their enemies to the minimum, by compact multitudes in nesting cities, roosting places and their daily flights in search of food, that to differentiate between them is often extremely difficult. Plumage is a varying feature of many birds under different climates.

Therefore, to reproduce them by selective breeding from other similar pigeons would not be desirable, until we first promote beech forests.

Unless our forest becomes large their enemies will destroy them in a very short time, and our farmers will

never approve of pigeons flying at large and devouring their grain, fruit and vegetables. Domesticated pigeons, confined to a place prepared for them, is the only kind that can be profitably maintained in most of our country, as it is now occupied by fields of grain, vineyards, orchards and gardens which are much more needed, in our present phase of development, than are the flocks that primitive men cherished. When only a few dozen families occupied space as large as a county, there was room for men, animals and birds. The strong then fed upon the weaker which perished from the world, making room for more men and their agriculture which now feeds them.

Primitive man found the forest adapted for his home. The trees bore fruit that nourished him, or that fed the birds and the animals which he slew for his food and raiment. They spread over the vast domain, until they became numerous. Then they developed arts by which many could exist, where there had previously been few, and civilized society began its development. Many former forms became obsolete in the new situations they created. Strong animals became the burden bearers and certain birds were tamed to furnish food for a more complex society. Tamed animals provided food and raiment. Those that could not be made efficient helpers soon began to fade away and become extinct. The soil was utilized for the vegetables and grain they needed and the trees were destroyed to make room for men. Now men are progressing in the epoch of tree cultivation and planting,

to cause them to produce the food and materials they desire, in larger supply than during the former phases of life.

To the isolated Indians and our pioneers the passenger pigeons, during early spring and summer, when other wild game was thin in flesh and unpalatable, came as a bountiful source of food, in most palatable form, and supplied them with all the meat and fat they desired. That made comparative safety for all other birds and animals, so far as their food was concerned, and allowed six months of time for rearing their young. That respite has preserved many varieties of them, this last century, from utter extinction. The pigeon proved to be a benefactor to them, as well as to men.

From the era, when pigeons came to relieve the annual springtime shortage of food, we have advanced to the ability of transporting the food that we require by mechanical force; so men do not need the pigeons as much as they did. They have literally donated their bodies and their existence for the benefit of men, birds and beasts of the forests. They were martyrs to our progress, as well as to the lives of a vast multitude of people.

It is no wonder that the philosopher and the poets of a decaying race of Red Men, in America, were constrained to endow the passenger pigeons with almost supernatural attributes, in their guardianship of the wandering tribes that had been lost in the primeval wilderness, since the creation of the world; nor that their hearts burst with sorrow when they beheld the

birds persecuted and slaughtered, by inhuman men of the white race, to make food upon which to fatten vast herds of hogs, and even to extract the fat from the dead bodies of the squabs, for grease with which to make soap—a substance which the Indians scarcely had any appreciation of. From the venerable books, the Zend-Avesta, we may learn of the progress of the early people of Iran. Zoroaster, the Persian sage, unfolded the process, step by step, upon the ladder, as they climbed to agriculture from the abyss they had been in, as nomadic tribes; and, in their metaphysics, he portrayed the beneficence of the celestial izeds of Hormuzd that were prototypes of our guardian angels. In like manner the Greek philosophers portrayed the blessings, derived from Pallas Athene, in their mythology of metamorphism. The Red Men had their sacred pigeons.

The American Red Men held the pigeon as the messenger of hope, when famine held them in a grip, as malignant as that of Hobomock, their enemy, who balked them in their enterprises upon earth and planned confusion upon the long trail to the Happy Hunting Ground, when the Great Spirit called them from their tribulations, in life upon earth, to the enjoyment of their ideal conditions. The sturdy pioneers of this country subdued the wilderness, with privations almost inconceivable at this day. They were attacked by wild animals in search of food and by the Indians who disapproved of their methods; many died from the rigors of the climate; for clothing they wore the skins of

beasts; for food, at times they were compelled to mix the bark of trees with their corn meal, so it would hold out longer, and at times they dug up the potatoes they had planted—so near they were to starvation—and then the pigeons came! Food at once was most plentiful. Their strength was renewed, as by a miracle; hope revived in their hearts; their courage blazed high; they walked a hundred miles, joyously, to the nearest grist mill to have their handful of corn ground, and hustled home again, so their wives and their children might have bread to eat with their rations of meat and fish.

Many of them did their own grinding by means of the hollowed out stump of a hardwood tree and a pestle of stone, or of seasoned wood. But they persevered, and soon, thriving villages dotted the forests; the hum of their industry and the shouts of woodsmen and raftsmen told of the business their energy was creating in the forests—a business that placed Pennsylvania, for a while, at the head of the great lumber producing states of the world. Then declining forest areas forced back our record step by step, to second; to third; then to fourth place in production of lumber. The white pine went first; then the hemlock; and later, the various hardwoods have become of moderate importance. Now we import much of the forest material we need from year to year. Indians have become citizens; turned farmers, and are as tame as their poultry.



C. W. DICKINSON
From a War-Time Daguerreotype

CHAPTER XII

Some Information About Their Characteristics, Classification and Peculiarities—Ornithology

THE pigeon tribe, comprising the large order of Columbæ, contains many beautiful and interesting birds, various families being styled doves in our nomenclature of them and in our every-day language. They are all distinguished from poultry and gallinaeous birds in general, by the form of the bill, which is arched towards the tip, with a convex swelling at the base, caused by a gristly plate covering the nasal cavities, which is curiously developed in some species. To enable the parent birds to feed their young, the gullet swells into a double crop, furnished with glands, enlarged during their brooding season, which mingle their secretions of certain acids with the food, to soften it into an emulsion, similar to the milk of mammals; or thick cream combined with the casein, in consolidated form, like the curds in making cheese from milk, so when the birds throw up the food after their fashion, to feed their young, the whole mass in the curd pouch has a soft, pulpy consistence, suitable to the delicate digestive powers of the tender young birds, and their rapid growth is astonishing.

The emulsion ducts of passenger pigeons, at breeding season, expanded into visible white strings from their breast to the curd pouch, outside of their feath-

ers, hanging like the bridle reins of a horse in motion, when under saddle, and held by an experienced rider. By this mark the hunters knew a brooding bird at a glance, even in flight, when the wild pigeons had returned and assembled at their nesting colony, before nest building began and until the squabs had been abandoned to hunt their own food. Then the ducts shrank beneath the feathers, until they became active for another brooding period. They have been classified as genus of *Ectopistes*, moving from place, and sometimes the term *Migratorius* is added for emphasis. The bill had longitudinal nostrils in the middle of it. The wings were long and pointed; first and second quills longest. The tail was long; four central feathers sharp. Tarsi were feathered to knees. They were peculiar to North America, in habitat.

The birds of North America are catalogued in about 925 species and subspecies. Many extensive works on them show their histories as only the science of ornithology can do. However, association with the birds endows the subject with life and interest, so that we may visualize and understand it better. In their habits, the pigeons greatly resemble each other; mostly haunting trees and, more or less, they are carphophagous, or fruit eaters at the season when it is available; some however, prefer the soil, as hunting-ground for insects, and for the succulent roots and leaves they are fond of; but generally, the family likeness is strong enough for even a novice in ornithology to know a pigeon when he sees one, ex-

cept in one or two varieties that are more puzzling, even to trained observers.

Their powers of wing are usually great, the pigeon being proverbially swift and enduring. They are found in almost all parts of the globe, from the arctic circle to the antarctic, where vegetation supplies food for them to feed upon. In the warmer regions they are most plentiful. In this country their colors are soft and pleasing, their necks glowing with a changeful beauty, but not particularly striking for depth or brilliancy; while in the tropics the pigeons are among the most magnificent of the feathered tribes, their plumage being imbued with the richest colors, and often assuming elegant forms.

For distributing the seeds, upon which they subsist, the pigeons are usually useful, and of great benefit. For utility the Fruit Pigeons of Oceanica are a good example. In Pellew and the neighboring islands it is a forest-loving bird, taking up its residence in the woods, where it finds abundance of food. The favorite diet is the soft covering of the nutmeg, known as "Mace," and the flavor which this aromatic food imparts to the flesh is so peculiarly delicate that the pigeons are in great request for the table, and are shot in large numbers. During the nutmeg season food is so abundant that the pigeons become so extremely plump, that when they are shot and fall to the ground they often burst asunder.

As an agency for disseminating, far and wide, the seeds of the remarkable nutmeg tree pigeons are most

useful. Being of large appetite they swallow the nutmeg together with the mace, but only the mace is subject to digestion, the nutmeg passing through the system with reproductive powers uninjured; they are also improved by the sojourn in the pigeon's body, which seems necessary to cause them to grow, for they must have chemical treatment, when planted by human hands, before they will take root from the seeds. In color this bird is as follows: The forehead, cheeks and throat are grayish-white, and the rest of the head and the back of the neck are gray with a slaty-blue wash. The back and upper portions of the body are light metallic green. The lower part of the throat and the breast are rusty gray; the thighs and abdomen are deep brownish-red. The under surface of the tail is green with a reddish gloss. The adult bird is fifteen inches long.

In a similar manner, passenger pigeons disseminated the seeds of the black cherry tree and many other wild fruits by dropping the pits of each variety, throughout the forests in this country, wherever they sojourneyed in the season for each; and also cranberries and the other native wild fruits. The beech-tree was brought to different localities through their agency.

On the west slope of the Rocky Mountains the Band-tailed Pigeons, (*Columbia fasciata*), were numerous, and they are a handsome species, about the size of domestic pigeons, with similar habits. Their colors are ash above, inclining to olive tints on the back, with

a fine bluish cast on the rump; and a narrow half-collar of white across the upper part of the neck. They are about fifteen inches long.

All pigeons have a wonderful power of finding their homes, even if taken to great distance from them. Their mode of finding their domiciles has been a subject of animated discussions, "since the memory of man runneth not contrary thereto." One party arguing that it is an instinctive operation; another that it is entirely by sight; and a third, that it is by a combination of the two, with a very sensitive recognition of the waves of electricity through the atmosphere, that each bird uses in a peculiar way, indicating to the bird its direction from home, and the way to travel, until sight avails to fix the route. To an observer of a flock of young passenger pigeons, a few days after the old birds had all departed to new nestings on Sydenham lakes, in Ontario, it was mighty interesting to find the young birds at Watertown, New York, the next day; then near Bay of Quinte the second day, and all of them in the woods of Sydenham valley the third day. Telepathy or intuition is certainly suggested.

CHAPTER XIII.

Other American Varieties Also Noticed—Development from Egg Observed and Given a Careful Analysis

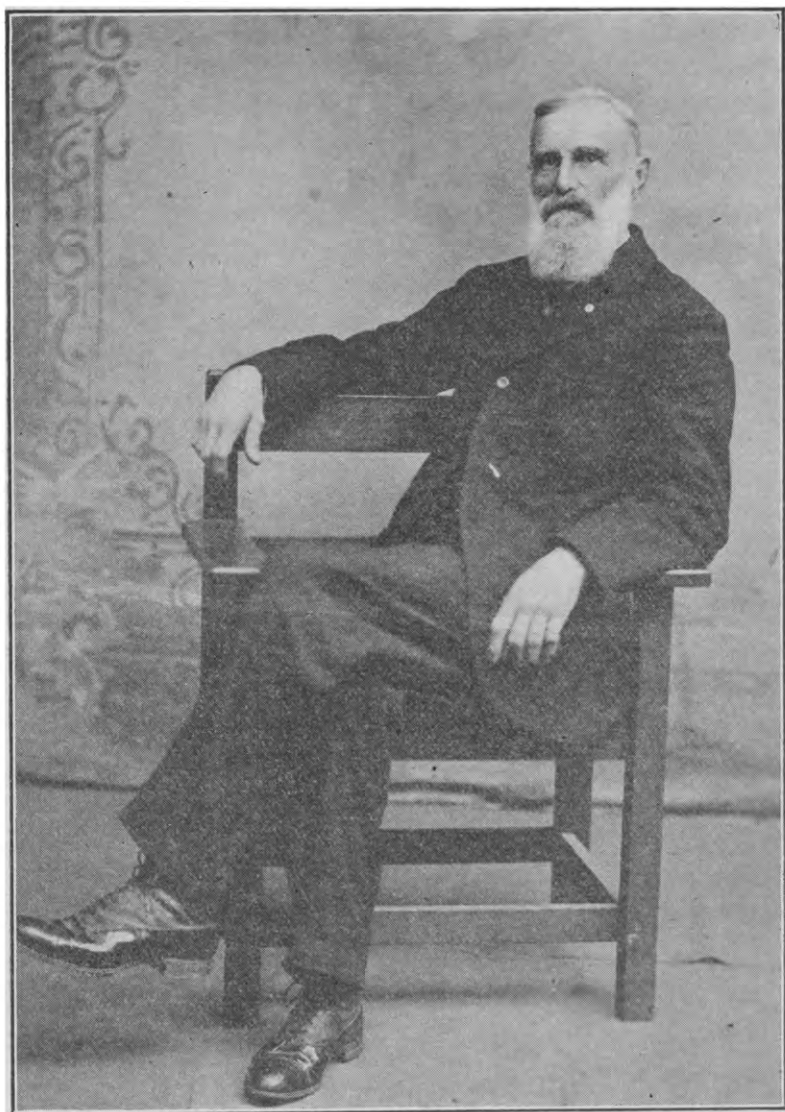
IN addition to a great variety of doves and the two varieties of northern pigeons, *Ectopistes* and *Fasciata*, there are various other important pigeons, native in North America and the West India Islands, that may be briefly noticed, in glancing around the Carribean environment and other places that are familiar to us. The White-Headed Pigeon (*Columbia cucucephala*), is found at Key West, Florida, in secluded places, as it is a shy bird, arriving about April 20th. It is of two classes that are plenty in Honduras and Jamaica and called Mangrove Baldpate and Mountain Baldpate, respectively, according to the chief habitat of each class. There is demand for the delicious squabs. They are readily domesticated, but have a fondness for emancipation. They are seldom taken in mainland interiors, but they love the islands near the coasts. It is smaller than the passenger pigeon; but is plump and nearly as heavy; color, dark slate-blue; from bill to nape pure white; dark maroon-purple spot on the occiput, and below it a brassy-green cape, covering nape, each feather bordered externally with velvety black; the bill is dark purple, with a light blue tip; iris, white; and the legs, a deep lake-red.

The Blue-Headed Pigeon (*Starnoenas cyanocephala*) is another West Indian bird that visits Key West. It is somewhat like a quail in appearance and in some of its habits, with a blue bill and carmine feet. It is about twelve inches in length. There are doves of approximately the same size, and some are larger. The Red-bill, the White wing in Mexico, *Zenaida* at Florida Keys and in the Antilles, the *Zenaidura* in the Carolinas, Louisiana and California. It visits New England in summer and may be seen in all the states, occasionally, from the Atlantic to the Pacific, in its migratory flights, having a variety of local names and somewhat varying plumage; it is *Ortolan* in Louisiana; Mourning Dove, or Common Dove, in other states, where its rapid flight and whistling wings are known to the country school children at the roadsides, and in the silent barren. In the Atlantic and Gulf states, as far north as Carolina, the tiny Ground Dove is known to everyone; and the Scaly Dove (*Scardafella Inca*) may be seen along the Rio Grande; in Arizona and southwards to Guatemala, in two species, one of which may also be seen in South America.

There are many more individual illustrations of the varying orders to which the many pigeon tribes belong, but those already described are sufficient for our purpose, at the present time. Domesticated pigeons are found to be sufficiently parallel with the native wild species of America to pursue our general investigations upon; so we take a pigeon egg, weighing

about half an ounce, with rounded ends similar, instead of one end pointed, as in the case of domestic fowls; and the shell is white. Birds are classed as vertebrates, but do not suckle their young, nourishing them, as explained in earlier chapters, as regards pigeons, with partially macerated food from the pouch of either parent bird, acted upon by its own organs of digestion; and which they are able to disgorge at will, similar to ruminating quadrupeds. The young are produced in an animated state, from the eggs, by the effects of constant warmth, as the parent pigeons sit alternately upon the nest.

When the egg is first produced, the future squab is indicated by a little germ-spot, barely the size of a single oat-grain with hull and shuck removed; without power of breathing atmospheric air and receiving nourishment into its mouth, until the incubating period has elapsed. To watch the development in the egg is an interesting experiment and full of suggestive instruction. The structure is so balanced, that to view the little germ-spot it is only necessary to lay the egg on its side and remove a portion of the shell, when the germ will be seen lying immediately under the aperture. In whatever way the egg may be turned, the germ-spot presents itself at the highest point, provided the egg be laid on its side, and that the living principle has not been extinguished. As growth proceeds, manipulation becomes easier, but it is best to immerse the egg in water, before removing the shell, and to keep it submerged during the examination.



JOHN H. CHATHAM

It is wonderful to see a living being evolved from apparently lifeless substances contained in an egg. The being grows under our gaze, and we arise from the wondrous spectacle with a feeling that we have been present at an act of creation. When an egg is opened we find a mass that is usually denominated as "white" and "yolk"; but examined more closely, the contents are found elaborately disposed, so as to meet the object for which the egg is formed. Within the shell lies a membrane, composed of two layers, pressed closely together for the greater portion of its extent, but separated at the wider end of the egg, containing a supply of air to satisfy the squab's requirements. This space increases as the squab develops. Within this membrane lies the "white" in two distinct layers, outer part thin and fluid, while under it lies a thick, tenacious, transparent layer. Within the white lies the yolk, surrounded by a slight membrane, guarding it from the white. The yolk is anchored by two ligaments fastened to its membrane. Upon the yolk, and immediately under the membrane, lies the little germ which in the brief space of two weeks of incubation will develop into a squab bird.

After a few hours of warmth, the first idea of life is seen in a little whitish streak, barely a tenth of an inch long, wider at one end, lying across the egg. This streak enlarges and forms a groove between two little ridges, in which a delicate thread appears, a few hours later, the first indication of a spinal cord. Presently a number of the tiniest square, white plates are

seen on each side of the thread, the commencement of the vertebrae. The parts seem to be a crystallization from the substances of the egg. By the end of the first day the germ curves, looking like a tiny maggot as it lies on the edge of the yolk. The little heart is perceptible, the second day; the arteries and veins supplied with blood, are perceived the third day. So the various organs appear, one after another, as the body is built up; the feathers being the last, on the twelfth day, and the squab pierces the air-sack, with its beak, at the blunter end of the egg; and hammers on the shell with its horn-tipped beak.

The young bird has been nourished by the yolk, which is connected with its abdomen, and which is separated soon after the shell is broken, enabling the squab to respire freely. The shell is pecked in a circle, cutting for itself a trap-door, which often remains suspended by a hinge of uncut lining membrane, through which the squab emerges on the fourteenth or fifteen day after the incubation began, and the horny excrescence at the tip of its bill soon drops off, as the young bird no longer needs a chisel to cut through so hard a substance as an egg shell; and nature abhors a superfluity in all of her craftsmanship. The young bird remains in the nest, nourished by the parents, for about two weeks, growing a coat of feathers upon its naked body, and quills for wings and tail, the sails and rudder by which it then parachutes from the high branch of the home nest-tree, in a slanting route, as it flutters to the ground and begins its life

work of finding its own food and learning how to fly, which requires only a few days of practice, when the squab hastens to rejoin its kindred, in the distant home they have selected and migrated to, soon after their young fluttered from the nests to begin active life in a wide world, where their natural enemies sought their destruction, making them hustle.



CHAPTER XIV

Some Adaptable Foreign Varieties—Structure and Mode of Flight—Process of Netting the Adult Birds

WE now shall sketch briefly some foreign varieties of pigeons that have been, more or less, domesticated and some of them changed by the process of selective breeding and admixture of the original stocks, thus creating strains that seem adapted to the desires of fanciers and those who consider utility for special purposes. These original species are considered adaptable varieties, as well as some American pigeons. The Stock-Dove, (*Columba oenas*), is about fourteen inches long and excellent for food. It makes its nests in stocks and stumps of trees and is common in many parts of the eastern hemisphere, although a European bird. The head, neck, back and wing coverts are bluish-gray; chin and sides of the neck being glossed with green, and the breast is purplish-red; the throat is wine-color, giving this bird the specific name "oenas;" the under surface is gray, of several tones, with white outer webs; the beak is deep orange, eyes are scarlet and the legs and toes are red.

The Wood-Pigeon, (*Columba palumbus*), is about seventeen inches long and is known by a variety of names in Europe, such as Cushat, Quist, Wood-guest and also Ring-dove, owing to feathers of its neck, tip-

ped with white, forming portions of rings set obliquely on the side of the neck. The head, chin and part of the neck are blue-gray; the remainder of the neck and the breast are purple-red; the upper parts of the body are slate-gray, with wings a darkened hue, and primary quill feathers have black shafts, outer edges bordered with white; the under surface of the body is several shades of gray; the beak, orange, and eyes are topaz-yellow; base of beak is nearly white. It is one of the commonest of European birds, breeding in almost every copse of trees and inhabiting the forest grounds in great abundance. They are held in great estimation for the table, especially the squabs just before they are able to fly. They are caught by boys who tie a string about their legs, fastening them to the branches while young, so they will be there in their nests when wanted.

Domestic pigeons are chiefly modifications of the Blue Rock-Pigeon, (*Columba livia*), and if permitted to mix freely display a tendency to revert to the original type of rock-dwellers, with simple plumage and black bars across the wings. The adult bird is about a foot in length. It is common over most of Europe, Northern Africa, and has even been found in Japan. The pouter, the jacobin, trumpeter and the fantail are all developed from this original race-stock by careful management and selective breeding, we have been told by fanciers. The homing instinct has been developed for ages, and before the electric telegraph was utilized the carrier pigeon carried messages in many parts of

the world. When released, far from home, they rise to a great height, hover about for awhile in an undecided manner, and then they are off like the flight of an arrow on the return trip.

The pigeons have their larger bones hollow, instead of solid or filled with marrow, like animals, being of a lighter make, combining great strength and surface for muscle leverage with least weight. These hollow bones communicate with airsacs which open in to the lungs, so the hot, rarified air may be forced from the lungs into the hollow bones, thus effecting great buoyancy for their bodies as more atmospheric air is consumed in respiration, the dioxide being exhaled, and flight becomes more rapid and easier as they proceed into a long flight. The hollow quills, perhaps, do a like service, as the bones, in assisting buoyancy in proportion to the exertion in the air, making the inhalations more abundant, oxidization rapid, and releasing the expanding gasses to charge the cavities, while carbonic acid gas, dioxide, is exhaled, to fall below, being heavier than atmosphere.

The passenger pigeons were provided with a breast-bone that was large and furnished with a deep keel, affording attachment for muscles of enormous size, which were devoted to drawing the wings forcibly downwards, in lifting strokes, while the conformation of the wings, to give the slight rotary action, so that the feathers beat the air with their flat sides, gave progress and speed, but presented their sharp edges as they returned for another stroke, like an oarsman

“feathering” the blade of his oar in throwing it back for another stroke. Their power of sight was remarkable, being adapted for near or distant objects, like many other birds, so that when passing a freshly sown field, like a streak in the air, they would swoop down, pick up all the grain in sight in a few moments, and go forward again, like a raging tempest, in haste to overtake their fellow flocks that had passed too far to right or left to observe the grain in the field, or they had been steering for another prize.

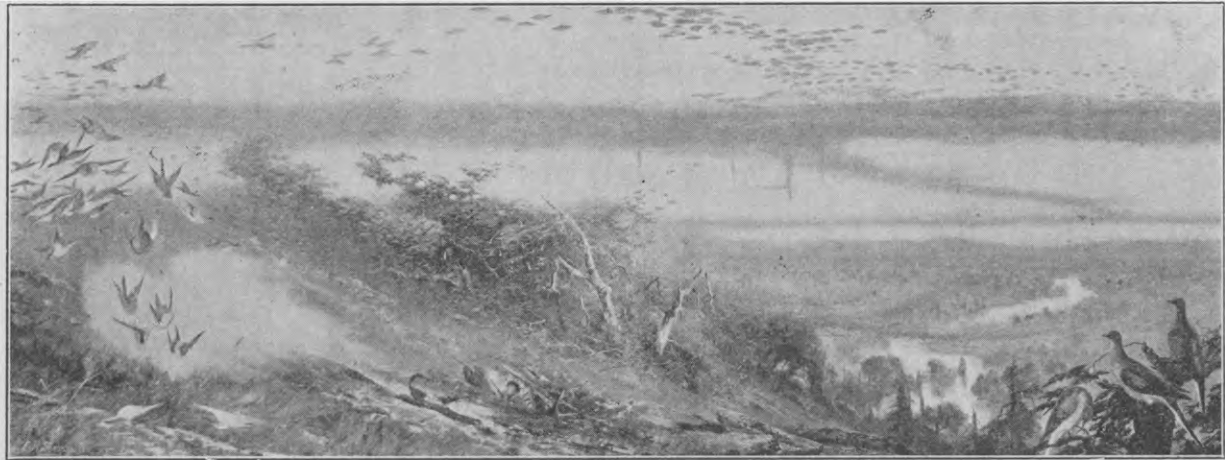
In starting upon a journey from perches in the tall trees, passenger pigeons, at first, dipped slightly toward the earth and tobogganed down the decline with increasing velocity, in the general direction they wished to go, and skimmed along the valley, between the hills. Then they began to rise above the hills and when high in the air they trimmed their course by curving toward the exact place they sought, accelerating the pace until a speed of nearly a hundred miles an hour was attained, and maintained to the end of their trip, when they circled in a wide, declining plane and gently alighted upon the ground, with a roaring of wings like a fearful tempest, or sought the branches of trees beyond, in a graceful upward sweep that absorbed much of the momentum they had attained.

To get the old pigeons as they passed along the valleys during the first dozen miles of their trips to their feeding grounds, the men rented cleared places upon the sandy flats along the rivers, removed the sod of a square rod, built a tepee of boughs at one side to

form the ambush of two men, set their net at one edge of the bared ground, tied "stool-pigeons" to stakes in the ground, scattered corn and buckwheat around them to complete the "bed" that was ready for victims, and retired to the shade of their ambush to await the flocks of the morning flight. The net was fastened at one square side to the ground and had weights of lead attached to the other three sides, with springs to throw it over the bed, whenever the controlling ropes, held by the men, should be given quick pulls, as the pigeons that alighted were picking up the grain.

The stool-pigeons were captured wild pigeons, with eyelids sewn together, so they were blind for the time being, tied with strings two or three yards long, so they could fly up a little and drop down again upon the bed when they heard the flocks above their heads, thus attracting the passing pigeons to alight and partake of the grain around them, which they also saw and desired. A few hundred would alight and crowd together on the bed as they hastily picked up the kernels of corn and then the smaller buckwheat, too absorbed to notice the net as it was sprung over them. Their heads, raised through the meshes of the net, were then pinched between thumb and finger or crushed by the teeth of the men.

From the Record and Star, Watsontown, Pennsylvania, July 13, 1917, Lew C. Fosnot, the editor, in describing a driving trip through the Pennsylvania mountains in which he had recently participated, says:



THE FLIGHT OF THE WILD PIGEONS

From the Painting by C. H. Shearer in the Art Collection of
Col. Henry W. Shoemaker

“Brush Valley furnished a diversion to our party in the shape of a wild-pigeon story that in spite of the earnestness and apparent lack of incentive to prevaricate or exaggerate on the part of our informant, is to be accepted with mental reservation. Mr. Snook, a farmer residing near the Stover home, reports that last fall—in buckwheat time—he was visited by a flock of at least five hundred wild pigeons, and that the previous spring a flock of about half that size were seen on his place. In the face of the fact that naturalists and wild bird lovers have been offering big rewards for even a single pair of wild pigeons, and that the species have long been regarded as extinct, this story seems highly improbable. Notwithstanding the remoteness of the section of alleged visitation, it is too important an occurrence not to have been reported or discovered by interested persons. The further fact that none of Mr. Snook’s neighbors saw the birds, which in such numbers should have been noticed throughout the entire valley, puts a climax to the doubts of the veracity of the story, forcing the conclusion that it was only a dream.

(Brush Valley, Centre County, is the wildest section of the central part of Pennsylvania, lumbered over many years ago, and is nicely grown up with a new forest. William Snook avers that he saw the wild pigeons in May and September, 1916.)

CHAPTER XV

Their Prehistoric Environment—Results and Examples of Conjecture, Investigation and Imagination—The Solution

AMONG the earliest legends of the human race, there survive frequent references to doves and pigeons. Noah sent forth an inquiry concerning the state of the world, before his ark rested upon the peak of Armenia's highest mountain. The descendants of Cush, son of Nimrod, the Hamite, carried into Mesopotamia the memories of the splendid bird of Bactriana, in their forms of worshipping the deity they revered; and the Assyrian queen, of the race of Cushites, expelled from Babylonia the race of Shemites, ruled by Joktan's dynasty in Arabia; for which glorious proceeding the happy people of her prosperous domain consecrated the pigeon, as her beneficent representative, and throughout Chaldea and the rich Mesopotamia plain the dove, or pigeon, became sacred to Semiramis, their queen. At an earlier date Menes, a Cushite, or redman, led his migration to Egypt and founded the dynasty on the Nile that remained forty-five centuries, until the "vile race of Cushites" was expelled from the whole land, in 527 B. C., and to them a pigeon represented Athor, daughter of the sun.

Primitive men, no doubt, developed faculties of conjecture, imagination and investigation; they conceived of Time as an unbounded duration, without beginning

and without end, and they named it Zervane Akerene, and other names, in their spoken languages, to denote an attribute of deity. By imagination we might behold a planet in evolution, as a moving picture from a film upon which scenes have been recorded. The science of geology reads the records of past ages from rock-films, as they were written and preserved. From remote points of the universe, the rays of reflected light from our planet are now beheld by the omniscient eye, as though the scenes they reveal were now being enacted upon the earth—a veritable picture of the past ages, showing past scenes in panorama, as the same rays of reflected light revealed them to the finite eye, at close range, in the long ago. So we are enabled to reconstruct some of them, imperfectly, by imagination, from what investigation has revealed in the exposed strata of earth-film.

In like manner, we may conceive that all the experiences of finite senses may be revealed to the omnipotent senses of infinite personality, as the sounds, perfumes, flavors and sensations of the prehistoric forests radiated from the earth to traverse the boundless spaces around us. The pigeon-tribes were in America, we have been told by the great geologists, at a remote period, when the forests were young, after the carboniferous period, when the great araucarian pine forests spread out over this continent. The araucarians are extinct now, except a few in South America, and only two varieties of the sequoias remain in North America, restricted to California. They were the first

families of our great forests and left records upon the Triassic rocks, before the existing mountain chains were upheaved from the Tertiary plains. Changes of climate eliminated many families of the trees, and finally the deciduous forms were evolved.

It is now believed by some scientists that a small addition to the carbon dioxide in the air would so imprison earth-heat that temperate conditions would be restored nearly to the poles of the earth, as was the case when the tropical trees grew in far northern regions of America; and when the great plains existed, before the great mountains were here, subject to rapid erosions of modern times, imprisoning the carbonic acid gas, as bicarbonates, in the waters that spread over the depressions of the plain. During the rest period monicarbonates formed in the water, releasing part of the carbon dioxide, to be absorbed into the air. The reverse would be a Glacial period that would follow any time, when erosions increased upon earth for any considerable period of time; as, in that case, a percentage of atmospheric carbon dioxide would be taken from the air, leaving less to check radiation of heat from the earth.

This is merely an academic illustration, in an effort to explain the manner in which the changes upon earth occur; to give the reason for disappearing races of animals and birds; because their food supplies are affected, as a family of trees or plants declines and new forms are born. There are such changes, progressing toward consummation, around us all the time;

but many are not observed in time to help reform the conditions, in order to preserve a useful species. My father often preached protection for grouse, pigeons and many other birds. He taught his sons the virtue of leaving them undisturbed at the nesting season, arguing, as the red-men did, that they were entitled to peace, quiet and protection from their enemies, at that time. From the great changes we have witnessed and the history of ages gone, so briefly referred to above, may we not conjecture that the creative force still dominates the earth?

During my youthful years I was familiar with the passenger pigeons and their nesting cities in McKean and Potter counties, in Pennsylvania. When they returned, in the spring of 1886, I saw many scouting flocks and, upon hearing that they were gathering along Pine Creek and the Kettle Creek tributaries, I went to observe them and make a careful investigation. From Coudersport I drove over the hills, before dawn of day, and reached the forest they had selected, about 8 o'clock on the morning of their disappearance. There was not a live bird to be seen, along my route of thirty miles; but young men were coming from the woods with bags full of dead birds. Many of them were lumberjacks, with high, spiked shoes on their feet; gray trousers, with legs chopped off at the knees, tucked into high-topped socks; mackinaw coats of bright red and brown, and gray, in large checks; silken scarfs around their necks; and high hats, of the vintage of 1851, in the Knox pattern that was known as the *Jenny Lind*.

The men explained their regalia by saying they had been out "sporting for pigeons with the big-bugs and tried to dress up some!" The old store at Oleona had been purchased by the timber firm and the attic emptied of such venerable relics of the long ago, when Ole Bornemann Bull, of Norway, violinist, had founded a Scandinavian colony in that forest, in 1852; and the reminder of the "Swedish Nightingale" had been purchased by the romantic enthusiast, Ole Bull, to supply the demand for silk hats in the Potter county forest. They had been stored in the attic for a generation; but at last, they graced a most disgraceful occasion. A thrifty clerk had found the hats and sold them to the teamsters, log cutters and bark-peelers, for a dollar each, to decorate the festal holiday at the pigeon city. In 1850 the great showman, P. T. Barnum, staged, at Castle Garden, New York, a reception to the celebrated prima donna, the proceeds of the first concert being donated to the public charities, after her custom. Mr. Barnum, however, realized handsomely by selling to the highest bidder, in various manufactures, exclusive rights for making a style, to bear the name "Jenny Lind." Mr. Knox paid \$5,000 for the hat privilege, and Ole bought \$500 worth of the beautiful hats for his Oleona store, opened in 1852. The last of them were sold in 1886 at a farewell scene for the Passenger Pigeons. That is an example of what investigation revealed.

During the month of March, 1892, I camped in the forests of eastern Oklahoma, looking for some wal-

nut timber for export to Liverpool, England, from which to manufacture gunstocks. My guide was the dignified Osage Indian, John Aurochs, sometimes called, in lighter vein, "Johnny Redox." I told the Indian the story of the pigeons, the men, the hats, and of the "Swedish Nightingale" and Ole Bull, inquiring if there had been any pigeons seen in the Indian country since the spring of 1886. He said that he had seen only a few pigeons during five years, and that the Osages then revered the Red-bird, the Texas Cardinal, as their celestial patron, because the passenger pigeons returned to them no more, as they formerly did at their early nesting period. Then he became quiet and thoughtful, gazing into the camp-fire for a long time, after I had "rolled up" in my blanket to enjoy a long cool night of sleep. After breakfast next morning, he was as cheerful as usual and asked many questions about the hats and coats the lumberjacks had worn, when the pigeons fled from Pennsylvania.

At our camp-fire that night, he confided to me his great, secret belief; that the pigeons would never return; that they had abdicated in favor of the Red-birds—the Nightingales of America. That the Cardinal wears a high hat, as the men did; and red and brown, and grey coats; and they sing sweetly, as did the Swedish lady. Their flute-like notes are like the ones Ole Bull once charmed the Oleona forest with, on his violin. The scientists will shake their heads, saying "Conjecture!" To me, it was a good example of splendid imagination.

CHAPTER XVI

An Observer's Recollection of The Passenger Pigeon, Once So Numerous, Now Extinct

From Potter County Journal, October 21, 1903.

By EDWIN HASKELL.

REMARKABLE as was the sudden disappearance and almost total extinction of the buffalo of the plains, not less remarkable was the sudden disappearance and extinction of the passenger pigeon.

But a few years ago, this pigeon was a frequent migrant from the northern wilds of British America to the Gulf of Mexico. These migrations were made in vast flocks. These flocks, it has been estimated, would sometimes consist of fifty or sixty millions of birds, so densely massed as to darken the sky, and taking two or three hours to pass a given point. Stops would be made in favorable localities for the purpose of nesting and rearing their young. These stopping places were chosen with the view of obtaining a sufficient amount of mast to last until the young birds could leave their nests and take care of themselves, and follow the parent birds to some new feeding and nesting ground.

Until within ten or fifteen years past, nearly every spring, after a plentiful crop of beechnuts the previous fall, there was quite likely to be a nesting of pigeons

in one or another of the northern or northwestern counties of Pennsylvania.

Potter county, because of the great quantity of beech timber in its forests, seems to have been a favorite locality for the nesting of pigeons.

Because, probably, no one will again see a flock of passenger pigeons, is the excuse the writer has for telling what he knows from personal observation, and from what he has been able to learn about this beautiful bird, once so numerous, now extinct.

My recollection goes back to sixty-seven or sixty-eight years ago, when I was a boy 5 or 6 years old. At which time pigeons in great numbers nesting near my father's home, a small log house nearly in the centre of a small clearing in the forest. It was so near that I was taken into the woods to see the nests and the birds flitting about in the tree tops.

I recollect with what delight I watched, with an elder sister, the almost endless flock streaming out and into the woods. I also have a distinct recollection of many people coming to our house to stay a day or so for the purpose of obtaining a supply of squabs. They brought their supply of provisions to eat, and blankets upon which to sleep. Their cooking was done outdoor, in a kettle swung over a fire, from a chain fastened to a pole, the ends of which rested in crotches driven into the ground, or in frying-pans placed upon a bed of live coals.

These campers-out often consisted of whole families, men, women and children. The men would go

into the woods and chop down such trees as contained the greater number of nests, catch or pick up the young birds and at once divest them of their crops. Bushel baskets full of these were brought to the house and emptied upon the ground. The women and children would remove the coarser pin-feathers and viscera and pack the squabs in tubs and barrels containing brine. Whether pickled squab was much of a luxury I never had an opportunity of knowing, as my parents were not disposed to lay by a supply of the oily lumps.

Soon after this my parents moved to Tioga county, New York, and the only knowledge I had for some years of the pigeons was that gained from seeing transitory flocks that nearly every year visited wheat and buckwheat fields, the former after the harvest, and the latter after the grain had been cut and set up in bunches to dry before threshing. These stray flocks would be coming and going for a number of days; but from whence they came or where they went nobody seemed to know or care then, as there was no means of readily ascertaining. It may be safely assumed that they were portions of a nesting flock hundreds of miles away in the south or southwest. As far as I have been able to learn, pigeons never nested in the wilds of northern or western Pennsylvania in the fall. They usually nested there in the spring after the danger had passed.

Ever since I had seen pigeons in their nesting place when a child too young to carry away anything but a

vague impression of the immensity of the number of birds, and the peculiarity of the gentle cooing sounds that filled the woods, I had a desire to again visit a nesting place. I wished to get a better conception of what would be going on there.

It was in the spring of 1855, I think, a chance to gratify this desire presented itself. One evening in April while conversing with a number of gentlemen on the corner of a street in Coudersport, Pennsylvania, one of them, an old resident of Potter county, raised his hand and pointed toward the crest of the wooded hill west of the village and called out:

“See that, gentlemen. See those pigeons circling in and out of the woods, up there; pigeons are going to nest on the ridge. I know from the actions of those birds that they are spying out the land to find a suitable place for a nesting of the coming flock. I have seen them do it before.”

“But,” queried a bystander, “how will they convey the intelligence that such a place has been found?”

“Don’t know. But, mind what I tell you; those woods will be full of pigeons by daylight tomorrow morning.”

Others of the group were quite sure that the first gentleman’s prediction was correct. What was guessed at was assumed to be a fact.

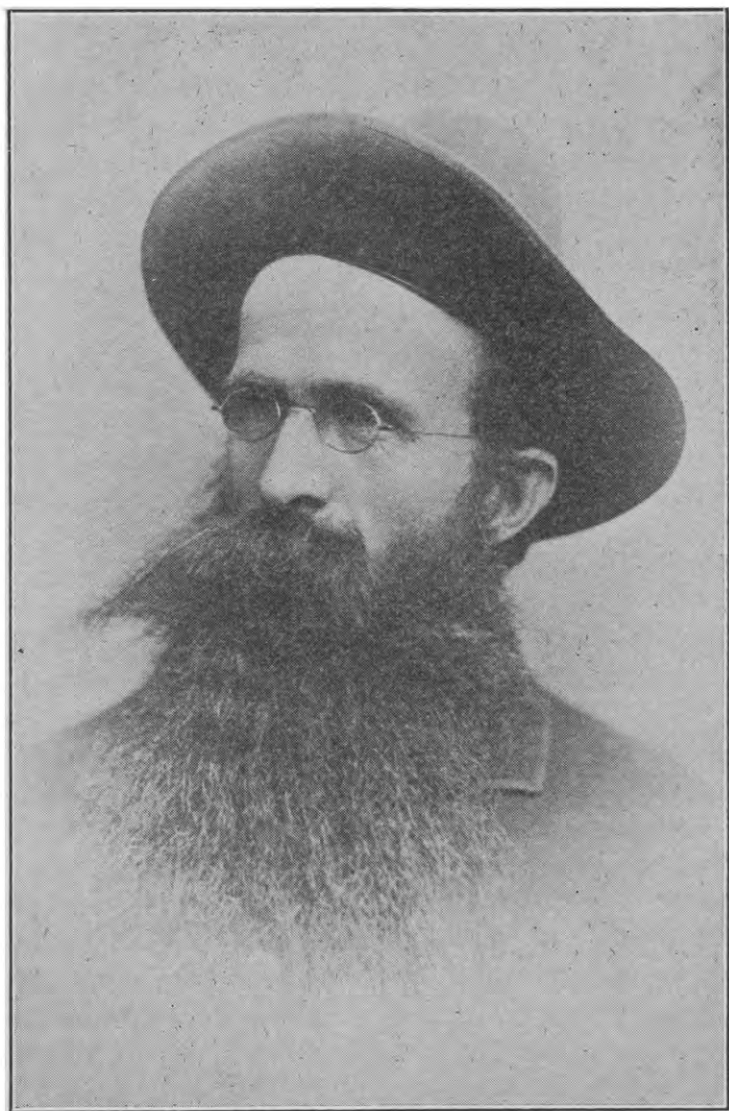
It took but a brief time to spread the news throughout the town. Every owner of a gun prepared to go for pigeons in the morning.

A brisk trade in powder and shot soon sprung up in the stores keeping the articles, and lasted until the supply was exhausted.

Not being the owner of a gun, I thought for a while I should be unable to take part in beginning the sport. Quite late in the evening, however, a young man in my employ informed me that he had obtained the loan of two shotguns until 7 o'clock the next morning. He also obtained a supply of ammunition. We planned an early start for the woods on the hills in the morning, thinking that if the "early bird gets the worm" the early hunter would stand a good chance of getting the bird.

Early the next morning two expectant sportsmen might have been seen climbing the hill west of the town—that is, they might have been seen had anyone been up to see them, and had it been light enough to distinguish objects.

Arriving at the crest, in a small opening in the forest where the timber had been cut down, they stopped and listened. Not a sound was to be heard. The twilight darkness had not been sufficiently dispelled to make easy the discernment of objects in or beneath the tops of the trees. Anxiously waiting, the eastern horizon was scanned to catch the first indication of the rising sun. A slight, diffused halo of light tipped the hilltops. Brighter and brighter it grew. The orb of day rose slowly above the horizon and shot rays of light through the tree tops, and dispelled the hazy darkness beneath them. Not a pigeon could be



C. H. SHEARER, READING, PA.,
Who Painted the Great Picture, "The Flight of the Wild Pigeons."

seen. Not a cooing of a pigeon could be heard. No life, no sound savoring of life, save the rustling of a leaf turned by a chipmunk seeking an early breakfast, or the feeble chirp of an awakening bird in the border of the wood.

Soon from the west there came a sound like that of an approaching tempest, or the roar of a distant cataract; swish! The pigeons had come. Streaming through the forest with such speed that one could catch a sight of only a glint of flapping wings.

Flock followed flock, sitting in the tops of the trees or lighting on the ground, and moving forward still, as if impelled by the momentum gained in their flight. Hopping, tumbling, flitting over one another, in the eagerness of each one to keep in the front rank.

After a long flight, the birds were hungry and the chance of the hindmost finding many nuts after the ground had been passed over was very small.

The twittering peculiar to the pigeon when a flock was lighting on the ground to feed, could be heard in every direction, showing that the scramble for nuts was going on over a large extent of forest where beech trees abounded.

When the pigeons came into that forest which was miles in extent, there must have been thousands of bushels of nuts scattered upon the ground. After they had once finished feeding, there could not have been a possibility of many being left. Half a pint of beech-nuts has been found in a pigeon's crop, and there were millions of them!

This stripping the ground of nuts, to begin with, was a surprise to me, as I had been informed by persons professing to know, that the old birds never picked up the nuts from the ground under the trees upon which they built their nests, but left them for the young birds when they left their nests.

From what was going on around me, it was evident that no such foresight could be attributed to the pigeon. Nature evidently made all necessary provision for the sustenance of the young birds on a small amount of food until they were ready to follow their parents to new nesting and feeding grounds. This provision was made by storing up in the bodies of the squabs a great amount of fat. Young birds killed a few days after leaving their nests would be found to be very lean.

It was not long before the flocks were scattered, and the low, gentle cooing of pairs of birds sidling up together on the limbs of the trees, indicated that pairing off and choosing places for nests was going on.

Other gunners arrived upon the scene, but the pigeons paid no attention to the discharge of firearms and the slaughter taking place, so intent where they upon attending to their own affairs.

A large number of the birds were being killed, but the chance for firing into massed flocks had passed and the hunters—if such they could be called—did not have to seek their game. It came to them single or in pairs. As fast as one bird was killed another would

take its place. All that was necessary to be done was to load and fire.

Having secured all the pigeons we desired, and the time having nearly expired for which we had obtained the loan of our guns, we hastened down the hill, getting home in time for breakfast.

Desirous of gaining further information, I climbed the hill again in the afternoon, and took a more extensive survey of the nesting.

There seemed to be no diminution of the number of the birds, but there was an absence of long, strung-out flocks moving with lightning-like velocity through the woods, showing in passing, a transitory glint of feathers and rapidly beating wings.

But few birds were on the ground, and these were in search of dry twigs with which to construct their nests. Whether the male birds assisted in building the nests I was unable to ascertain, but presumed they were, from the rapidity with which they were being finished.

It was noticeable, however, that the males seemed to get more time than the females, to sit around on lower branches of the trees, as if in quiet contemplation of what was going on. This made them an easy mark for the gunners. Upon an examination of almost any string of birds killed, it would be found that nearly all of them would be males. Early the next morning a great number of the birds were leaving the nesting ground to feed; that they were mostly female could be known from the fact that when going out in

search of food the female birds flew much higher than the males. They were going in open order. Up and down the valley, as far as the eye could reach, the sky was flecked with the birds moving in one direction. Later in the day they were coming back in flocks, and the males were leaving, skimming quite near the ground, over the tops of the hills and around the projecting points. Toward evening they returned to a roosting place, not far from the nesting. Sometimes the birds would light in these places in such numbers as to break the limbs of the trees, or turn them up by the roots.

I did not go to the nesting again for sometime. It was not necessary to go there for birds to eat. They could be bought nearly every day for 25 cents a dozen—about what the powder and shot cost with which to kill them. In those days people did not think of sending pigeons to the city market.

I had waited until the squabs were nearly large enough to leave their nests, having been informed that was the time to get them, as then they were the best.

There was a large number of people from different sections of the country, chopping down trees to get the young birds. So rapidly they come to maturity, there would be but one or two days in which this could be done.

In choosing trees to cut down, the choppers would look for those in which there was the greatest number of nests. When the trees came to the ground, the squabs that were not killed would flutter off, giving

the choppers a lively run before they were secured. When caught the crop was seized between the index and middle finger, the hand giving a quick flirt, removing head and crop with a single motion.

The old pigeons paid little attention to the felling of trees. They were going and coming and feeding the squabs. The crop of the pigeon is partially divided into two sections; one of which consists of glands, which become enlarged when the birds are nesting. These glands secrete a milk-like substance which coagulates into a substance having much the appearance of the curd of cheese. This curd mixed with partially digested food, is ejected into the mouths of the squabs. Fed on any other food than this, squabs would die. It seemed, from what observation I was able to make, that it required some time, and a season of rest, for this secretion and coagulation to take place. On returning from feeding, the pigeons would not proceed immediately to feed the young birds, but sit around on the branches of the trees—usually over night at their roosting place.

All of the young pigeons seemed to leave their nests about the same time. At first their flight was quite near the ground. People would take advantage of this, and station themselves on the brow of the hill, with long flexible poles, and whip into the low-flying flocks, killing in this manner many birds.

In April, 1868, I think it was, pigeons nested in Bingham township, Potter county, Pennsylvania; but a fall of snow five or six inches in depth, caused them

to desert their nests. Luckily for them, however, a frost had occurred, in many localities, before the beech-nuts were fully ripe, and the nuts had not fallen out of the burrs. At that time I was preparing to make sugar. In some parts of the woods were many beech trees, from which a large proportion of the nuts had not fallen. For two or three days after the snow storm, along in the forenoon pigeons would come in, immense flocks to feed on these nuts. By a peculiar flapping of their wings, they would hold themselves suspended in the air in an upright position, at the ends of the twigs of the trees, and pick the nuts from the burrs. The noise made by the flapping of wings was almost deafening, and could be distinctly heard for a half mile or more.

In a few sunny places at the edge of the woods the snow had thawed, exposing the bare ground. Upon such places great flocks of pigeons would swoop down, struggling and scolding, to get the few nuts to be obtained.

The difficulty with which the pigeons could obtain food was the pigeon netter's opportunity.

A bed would be made by clearing the snow from a small section of level ground. Upon this wheat or buckwheat would be scattered. Beside this bed a net would be arranged, and so folded back, that by the means of springs, it could be thrown forward quickly up and over any birds that might light or hover over the bed. For the purpose of concealing the netters, a booth or hut of boughs would be built near the net,

care being taken to have it resemble as nearly as possible a bunch of bushes. From this hut the net could be sprung, and flyers thrown up. A flyer was a pigeon with a string tied to its legs by which it could be pulled down after having been thrown up, in such a manner as to give it the appearance of hovering over a feeding place. Another pigeon, called a stool pigeon, would be set upon a sort of tilting perch near the ground, in the middle of the bed. This bird was blinded by having its eyes sewed up. By tilting this perch this pigeon would lift its wings in a way pigeons had upon alighting to feed. There might have been various other ways of luring the birds to the net. At the right moment the man in the hut would pull a string and spring the net over the birds. So skillful were some of those netters that no device other than the flyers would be used to lure the birds. When a passing flock would swoop near the ground to see what the flyers had found, the net would be thrown at the right moment for the birds to pile into it. The number that would be caught in this manner was dependent upon the length and width of the net and the size of the flock.

Netting Pigeons and the Slaughter

In one instance it was my good fortune to be in a booth when an enormous haul of birds was made in this way. The net was thrown just in time to scoop in a large portion of a flock skimming near the ground past the hut, having been attracted there by the flyers.

As the net came down the momentum of their flight piled them up several courses deep. In a moment a pigeon's head protruded from every mesh in the net. So great was the number of the birds, struggling desperately to free themselves, that I was called upon to throw myself upon the net and help hold it down else the pigeons would escape. With our weight and using both hands and feet to the utmost of our strength, for a time it seemed as though the net would be raised in spite of our efforts. What else to do was difficult to determine. We could not let go of the net to kill the birds with our hands—what, then, was to be done? The old pigeon catcher who had sprung the net decided quickly, by setting an example and yelling to me;

“Bite their heads! Bite their heads! Do you hear?”
“Not for all the pigeons in the world,” I replied.
“Pshaw! Don't be squeamish! See how its done!” he called out impatiently, and went on crushing the skulls of the heads protruding through the meshes of the net, until the difficulty of holding it down had passed and a less revolting, if not more merciful, method of killing the remainder of the birds could be devised.

I could kill pigeons with a gun without any compunction. But crushing the skulls of live birds between my teeth! Faugh! It makes me shudder to think of it.

During the few days the snow covered the ground, some of the men, netting pigeons in Bingham township, caught from five to eight hundred dollars' worth of the birds.

The snow having melted from the ground, the flock that had dispersed over a wide extent of country in search of food, came together in a nesting place on the ridges adjacent to the head of Dingman Run, not far from Coudersport. About a week later, a very large flock that had been driven from their nests by the snow storm, came from Cameron county, or Elk county, and joined the pigeons that had come from the abandoned nesting in Bingham township extending the Dingman Run nesting several miles along the ridge between the Allegheny river and the Oswayo creek.

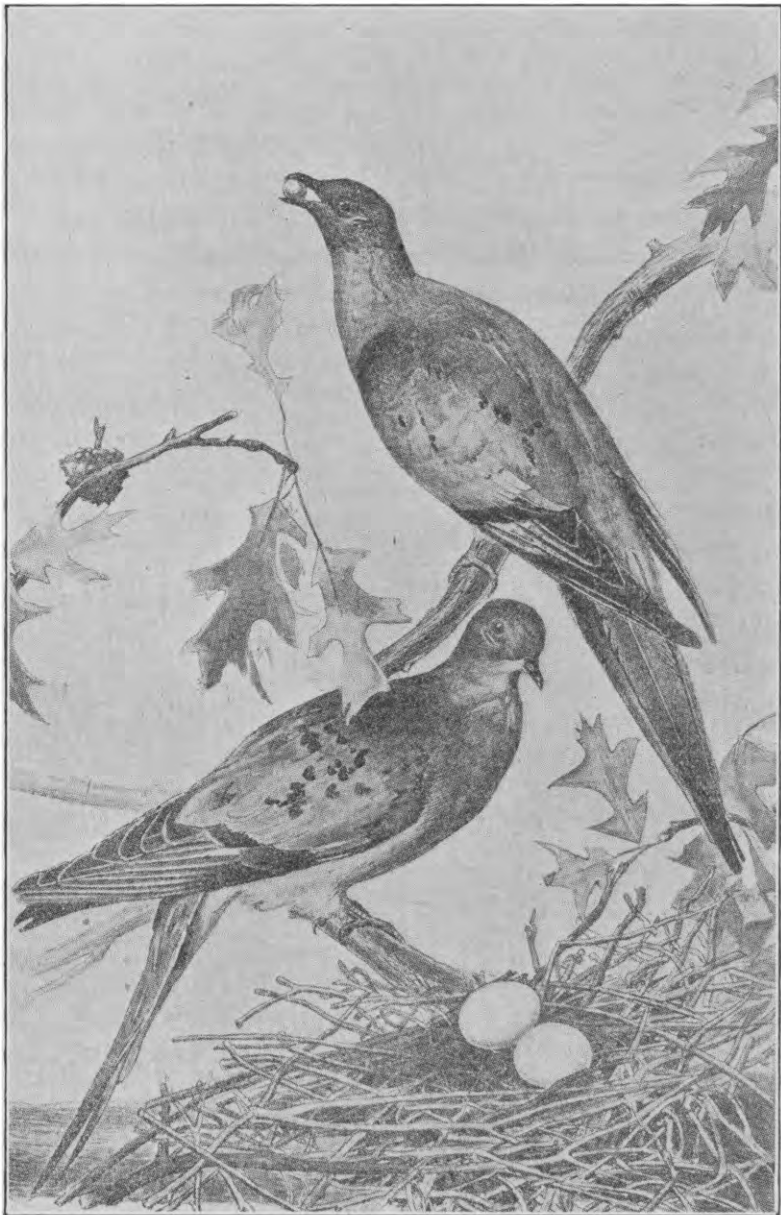
By this time the netting and shooting of pigeons, to be sold in the city markets, had become a well organized business. Correspondence, by means of telegraph, was kept up from all the regions in which the pigeons were accustomed to nest. Those engaged in the business were supplied with accurate information as to the locality where the birds might be found at any given time, with an estimate of their number and directions as to the most direct route by rail, to a point nearest nesting place. This accounts for the great slaughter of pigeons that took place during their nesting in the vicinity of Dingman Run.

All that time I had not seen pigeons in their nesting place for some years. Having been informed that the squabs were about to leave their nests, I arranged with two or three neighbors to go to the nesting ground for a mess. Having several miles to drive, we started early in the morning, so that more time might be had

in the woods. One route lay through Coudersport. When within two or three miles of that town, we were met by a young man on a cantering horse. He drew up his perspiring steed and inquired whether we had seen a team on the road that was bringing a load of goods from Wellsville, New York. Among the goods was a quantity of shot which his firm had given the driver a commission to procure for them. He described the man and team. We told him no such man and team had been seen. Turning his horse, quickly, and urging it into a gallop, he disappeared up the road muttering incoherent imprecations against tardy teamsters in general. Wellsville, at that time, was the nearest point from Coudersport at which a railroad could be reached.

The presence of so many people near the town, engaged in killing, catching, buying and shipping pigeons had caused such an influx of money, that the dealers in hunters' and sportsmen's supplies were anxious to meet the demand as far as possible. Their stock of shot had become exhausted. Hence the dispatch of a courier to hurry up the laggard teamster.

On entering the town, its streets, usually so quiet, presented a novel spectacle. Men carrying guns were coming into town from various directions. They came in carriages, buggies, lumber wagons, on horseback and on foot. A motley crowd. The scene was analogous to nothing else I ever saw, unless it was an assembling of militia for an old-fashioned general training.



A PAIR OF PASSENGER PIGEONS
With Their Nest, Showing the Two Eggs. (From an Old Print.)

The pigeon nesting was a boon to many poor men. Ten or twelve dollars' worth of the old birds was frequently the result of one day's shooting. One dollar per dozen was the price of pigeons on the ground. The price for squabs was forty cents per dozen. An industrious man, handy with an axe, could earn more getting squabs than could be earned by shooting the old birds. Breech-loading guns had not come into general use at that time. The old muzzle loading gun was liable to become so foul on a damp day as to be unserviceable, if many consecutive shots were fired in a short time. It is not difficult to conceive how much greater must have been the slaughter, in after times, when modern firearms had come into general use.

When we arrived at the nesting, hundreds of acres of beech forest was being felled for the squabs, great numbers of these were taken to a shanty and sold to buyers, who had men hired to prepare and pack them for transportation to market. Gunners swarmed in every section of the forest, the thud of the axman's strokes, the crash of falling trees, the flutter of wings and cooing of pigeons, the incessant report of shot-guns, the laughter, cursing and shouting of men filled the woods with a medley of sounds almost crazing, and made it seem as though it were a pendemonium for a saturnalia of slaughter.

Historical Comment—Last Appearance of Pigeons

In the fields near the nesting grounds the netters waited for outgoing and incoming flocks.

Early in the morning, when the pigeons were hungry, was thought to be the most favorable time to lure them to the nets. It might happen, however, that clouds would prolong the twilight, or a dense fog shut out from the ground the rays of the rising sun, rendering it difficult for the birds, in their flight, to discern objects near the earth; when this was the case the pigeons flew high. An attempt to attract their attention would be useless.

The return flight, however, was usually made towards evening, in broad daylight, but, if the birds had been successful in filling their crops, the attempt to call them down would be unavailing. As the country for a long distance in every direction had become divested of food, the birds would frequently return to their nesting place with very little in their crops. Then the sight of a flyer, or a stool pigeon, fluttering just above the ground, as if alighting for the purpose of picking up some sort of grain or nuts, they would swoop down, huddled together in almost a solid mass, and the netter would make a big haul.

The depletion of the great flock, by netters and gunners was by no means restricted to the nesting ground and its vicinity. Over a vast extent of country embracing thousands of square miles—wherever the pigeons were coming and going nearly every day—their

destruction was going on, and had been going on for weeks.

Yet a person could scarcely be found who thought that any perceptible diminution could be made in their numbers. As yet, no note of warning had been sounded which the public would heed.

One or two days after my trip to the Dingman Run nesting place the squabs left their nests—full-fledged pigeons—the term squab applying to them no more. The old pigeons had started on their migration to a new nesting place in the far northwest. The young birds stayed two or three days longer; by short flights spreading over quite a large extent of the adjacent territory, to gain strength and facility in the use of their wings before attempting the long, sustained flight necessary to keep them in touch with the older birds in their migrations. They kept spreading out, moving on in small flocks, in search of food, until all at once they were gone. Where? No one seemed to know, except the men whose business of pigeon netting and killing made it necessary for them to keep track of them.

Before they could join the old pigeons, and a nesting place be chosen, these men were after them in order to be on hand, when and wherever that might be, to commence anew the slaughtering.

When the pigeons left Dingman Run, the nesting of pigeons in great numbers in Potter and adjoining counties of Pennsylvania was a thing of the past.

Two small flocks nested, it is true, near Cherry Springs, in 1882 or 1883, I think it was. That was the last of the passenger pigeon in Potter county. (It was in 1886).

There was said to have been a large nesting of the pigeons in North Dakota, in 1889. The pot hunters and netters slaughtered millions of the birds, sending them to market by the car-loads. About that time I recollect reading an account of pigeons nesting in the Indian Territory, 250 miles from any railroad. Previous to that time there had been two great flocks in the United States. Then there was only one. One of the flocks had been exterminated. Probably the flock that nested in Dakota was the same that nested in the Indian Territory. Whether that was the case, I have never been able to learn. It was reported that a large flock of pigeons had been seen nesting in Mexico. It has since been ascertained that they were not passenger pigeons, but another species. The opinion that the persistent following and killing of pigeons, in their nesting places, in the United States and British America, had caused the birds to seek refuge in Mexico or Central America, had to be abandoned.

That the passenger pigeon could have stayed continuously, for the past ten or fifteen years, in the fastness of the unexplored wilds of British America, is to suppose an impossibility. The rigor of the climate precluded any such protracted stay. It might be more reasonable to suggest, that after the pigeons nested in the Indian Territory and North Dakota, they migrated

to the northern wilds of British America, and were at some time caught in a great blizzard and perished from cold, thereby wiping the species from the face of the earth.

It may be claimed, in refutation of this supposition, that a number of the people have reported that they have seen pigeons, since that time in small flocks, or in single pairs in the mountain regions of Pennsylvania. It is quite probable that these persons made the mistake of taking turtle doves for passenger pigeons. This might have been done very easily, as the turtle dove bears a striking resemblance to the pigeon. This dove is usually to be found in single pairs, or in small flocks, as were the pigeons reported to have been seen. These doves are quite plentiful in some parts of Pennsylvania. However, I think it safe to assume, that a passenger pigeon has not been seen in Pennsylvania, nor in any other of the United States, or in British America, Mexico, or any other part of the world, in ten years.

However phenomenal was the sudden disappearance of a bird of such wonderful fecundity; however unexplainable such a sudden extinction may be, yet it must be accepted as an indisputable fact.

CHAPTER XVII

OUR FOREST FOLLOWED THE PASSENGER PIGEONS

Rise, Activity and Decline of a Hemlock Lumber Town in Pennsylvania—Cross Forks

From Munsey's Magazine (Abridged.)

THE beginning of the harvest of hemlock bark and timber, in the Potter county forest, was about 1872, reaching full volume in 1892, and declining, to finish in 1912, except some isolated parcels of timber land that remained when the big sawmills and the lumberjacks left or turned to other occupations. Many of our townships, in turn, turned giddy with prosperity for a few years and then fell upon dull times, for a time, until the readjustment to new conditions made the people ready for a more stable prosperity in lines of permanent industry, and the real town, beneath the giddy vision, had a new birth.

The Fountain of Prosperity

The fountain from which all this prosperity flowed was, of course, the big sawmill of the Lackawanna Lumber Company. This, as has been said, started operations in 1895. It was burned down the next year, and in 1897 was replaced by a bigger, busier and better mill. This in turn was destroyed by fire in the

spring of 1903, together with thirteen million feet of stacked lumber in the yards.

Such little accidents were not allowed to delay things long, however, and by autumn of the same year the biggest and best mill of the three was in full swing. It had a daily capacity of two hundred and thirty thousand board feet, which meant a yearly capacity of seventy-two million board feet. In other words, as the inhabitants of the town pointed out with justifiable pride, "the lumber cut of two years would be more than sufficient to encircle the globe with boards an inch thick and twelve inches wide."

The value of the annual output of rough lumber was in the neighborhood of a million dollars. Much of this was further manufactured at the planing-mill, run in conjunction with the sawmill by the Lackawanna Lumber Company, which also maintained a lath-mill and its own machine-shops.

Another industry which helped to keep things booming was the stave-mill established by the Pennsylvania Stave Company. It started operations in 1897, purchasing its timber in the woods from the Lackawanna Lumber Company, but doing its own logging. This mill also had its own machine-shops. A kindling-mill, a shingle-mill, and a hub-factory also existed for longer or shorter periods.

Breaking records was a favorite pastime for Cross Fork's industries. The spirit of rivalry, of push, of hurry-up in general, was always in the air. Every woods-crew was anxious to beat the record of another,

or to set its own one notch higher, and the company, of course had no objection. The cut of the Lackawanna Lumber Company reached its high-water mark in January, 1906; during that month the sawmill came to the front with a cut of 6,659,695 board feet, the math mill cut 2,254,300 pieces, and the planing-mill boasted of 2,286,988 board feet planed and matched.

A Busy Community

Business unquestionably was active. The Lackawanna store run by the Lackawanna Lumber Company did a larger trade than any other store in Potter county. Yet it had a lot of competition, for Cross Fork also contained five groceries, a dry-goods shop, a millinery shop, two clothing stores, a shoe store, two drug stores, a hardware store, a sporting goods store, and numerous other retail establishments. It had three doctors, a dentist, and two undertakers. Its post-office was one of the few international money order offices in the county, and action by the President and the Senate of the United States was necessary to appoint its postmaster.

Seven hotels—one of them ranked high among the best in Potter county and offered a welcome to the traveler. Three restaurants, one of which advertised to purvey anything that Delmonico's did, ministered to the wants of the inner man. Licensed saloons there were none, but each hotel had a bar, supplied by the wholesale liquor store and there were unlicensed



CHARLES H. ELDON

Premier Naturalist of Central Pennsylvania, with Male Passenger Pigeon Which He Mounted, Now in His Possession

“blind tigers” or “pig’s ears,” galore. Gambling dens and disorderly houses also flourished, and any one who really wanted to be wicked had every opportunity to be so.

Lest this should give an unfair impression of the town, it should be added that there were also four churches, and the efforts of these were supplemented by occasional visits from traveling evangelists. The W. C. T. U. was active. So also was the Y. M. C. A., which had a fine building, with gymnasium and baths.

For those with fraternal leanings there were lodges of Masons, Maccabees, and Odd-Fellows. Others socially inclined derived their amusement from the local literary society, card-clubs and dances. Ten young ladies, apparently of classical tastes, formed themselves into a club called the Bellae Decem—the Beautiful Ten. * * * *

Back of all this activity in the town was the woods work of getting out the logs and sending them to the mills. Logging railroads ran every creek bottom, and lumber-camps abounded. In addition to the timber cut for the Cross Fork mills, some twenty million board feet, or more, were driven every year down Kettle Creek and the Susquehanna to Williamsport.

About five thousand lumberjacks—or “hicks,” in local parlance—were engaged in the work. They were of the rough, roving type characteristic of their calling. For the most part unmarried and homeless, they lived

from hand to mouth, saving money in the woods only to squander it to the last red cent as soon as they struck town. * * * *

Other evidences of the liveliness of the town were to be found in its band, its enterprising hose-company, and its successful baseball team, in whose ranks were included professionals on the pay-roll of the Lackawanna Lumber Company. Still further evidence, though scarcely so deserving of praise, was the tendency toward disorder, which is so often tolerated by boom towns, with their worship of individual liberty. Strange as it may seem, Cross Fork was never incorporated and never had a policeman. As the News put it, "one would be at liberty to operate a Gatling gun in the streets here, and we doubt if there would be more than half a dozen dissentient voices."

As to the population of the town, opinions differ. The census of 1910 showed a population of 1,299 in Stewardson Township, but this did not include South Cross Fork, just over the line in Clinton County; and then every one knows that census figures never do justice to his home town. Cross Fork itself owned up to about twenty-five hundred and enthusiastic boomers sometimes ran it up toward three thousand. The Pennsylvania Department of Forestry places the population, in the period of prosperity, at about two thousand and this is probably a fair and conservative estimate.

Certain it is that in the heyday of Cross Fork the population exceeded the accommodations. Laborers

with families were constantly leaving, not because there was no work to be had but because there were no houses in which to live.

So far as modern improvements were concerned the town was well off. Two separate electric-light systems made things brilliant by night, while two water systems and good sewerage provided satisfactory sanitation. Telephones installed by a local company, and well patronized, made gossip easy and facilitated business. * * * *

Signs of Decline

The beautiful school building was offered for sale. The walls, which are tinted, are adorned with pictures and maps. There is a good sized cellar, with a first class steam furnace in excellent repair, as are also the plumbing arrangements. The desks and seats are likewise in good condition. There are eight hundred feet of running black board more than forty-two inches wide. Many text books, a good deal of laboratory equipment, and two organs are also included. All of this is for sale and still no purchaser comes forward. What a rare opportunity for any one with a weakness for white elephants.

There is another side to the picture. Instead of paying for the school building entirely out of current expenses, the township issued three thousand dollars' worth of bonds. These were in six series of five hundred dollars each, payment on which was to begin in 1902 and continue for six years. As it turned out,

however, the school board "owing to financial difficulties," did not pay the bonds as they matured, and the debt still remained on the township after the bottom fell out in 1909. As a result the tax rate for school purposes, which in 1898 was as low as two and one-half mills, is now two and one-half cents on the dollar.

Similarly, the road supervisors in 1901 and 1904 borrowed in all forty-six hundred dollars payable on demand. Like the school bonds, these notes had not been paid when the crash came, and the burden now rests upon the few people still left in the township. The tax for road purposes is now ten mills, as against five mills in 1898, and even this rate is insufficient to meet the interest on the bonds to say nothing of the principal and the money required for current work.

Real estate values in the township, according to official figures have decreased from \$896,862 in 1904 to \$18,815 in 1914, and the town would have been absolutely bankrupt if it had not been for the assistance rendered by the state.

"Even cities have their graves," and Cross Fork's looks wide and deep. Nevertheless, cities may also have their resurrections, and there are indications that a revived, more wholesome, and more permanent Cross Fork may yet rise out of the ashes of the old.

* * * *

The big sawmill of the Lackawanna Lumber Company closed down in April, 1909; and by autumn of the same year the exodus from the town was in full swing. One of the hotels burned down in June and another in

July. From then on sporadic fires were fairly common, until in February, 1910, a whole block was destroyed.

This was too much for the fire insurance companies, which up to that time had paid all losses promptly if not cheerfully. All existing policies in Cross Fork were canceled, and the companies refused to write any new ones. Possibly the remedy was a drastic one. Certainly it effected an immediate cure. Fires stopped, and in their place was started a series of forced sales.

Every one was anxious to liquidate such assets as he might have to clear out. Five-room frame houses, with steam, water, and bath, were offered for twenty-five dollars, and a seven room house for thirty-five, without finding a buyer. Many dwellings were torn down, and everything salable shipped out of town.

In the winter of 1912-1913 the stave mill followed the sawmill. In the fall of 1913 the Buffalo and Susquehanna Railroad, which for some time had been running only three trains a week, discontinued its service entirely, and the next spring tore up its rails. That was the coup de grace; Cross Fork was dead. In four years its population had shrunk from two thousand or more to sixty-one!

No longer did the woods resound to the blows of the ax and the shouts of the fellers; no longer did the town answer merrily to the hum of the saw. The forests were gone, and with them departed the prosperity of a region of little value for agriculture or mining.

Fires had followed lumbering; puny fire-cherries, sumac and blackberry bushes now grow in the place of mighty hemlocks which once had flourished. Desolation reigned supreme.

Hopes for the Future

Even while lumbering operations were in full swing, the State of Pennsylvania began to buy up cut-over land in Potter County. These purchases gradually increased as the cutting progressed until today the State owns more than forty-one thousand acres in Stewardson Township, including the site of the town of Cross Fork. Practically all this land is chiefly valuable for permanent forest production, and is being handled by the state with this end in view.

Fire protection has been assured by the building of look-out towers and the clearing of land lanes, the employment of forest rangers. Roads have been brushed out and ditches dug. Springs have been cleaned and repaired. Telephone lines have been maintained and in some places extended. Reforestration of the denuded hill has been begun by the planting of white pine and other trees.

The State has, in short, regarded its lands as a permanent investment, and has set out to manage them in a business like way. As the local residents have gradually come to realize this fact, their original attitude of at least partial hospitality has been replaced by one of cordial co-operation. Their fear that public owner-

ship might be accompanied by yards of red tape and volumes of burdensome restrictions has been dispelled and they are now ready to admit that the State is a good landlord.

In Cross Fork itself the State has accomplished wonders in bringing order out of chaos that followed the collapse of the town. Old buildings have been torn down, excavations have been filled in, and rubbish in general cleared away. The buildings belonging to the State have been painted and put in good repair. The mill-pond has been drained and cleaned, and the cribbing along the creek re-enforced to prevent washing. As a result, an orderly little country hamlet has appeared as if by magic out of the rack and ruin of the former town.

Furthermore, the State has repaired the main water system of the town, and supplies water to the present inhabitants free of charge. In connection with this, a fire department is also maintained by the State. Some street tree planting has been done and more is planned. A small public library has been started, is open to all free of charge. Plans have also been formed for the establishment of a recreation room for the children and of another for the older people. Basket picnics, with music for the entire community, have proved a great success.

As the cut-over lands begin to bear timber once more, the state will try to establish new wood-using industries in Cross Fork, which will increase in size and importance as the forest comes back. Then the town

will once more resound to the hum of the saw, and will again contribute its share to the production of the world.

Never again will it see a sawmill capable of turning out six million board feet of lumber a month, for the cut from the State lands will be limited to what they actually produce each year. Instead, it will see what is far better—a number of smaller but more stable industries, supporting a thriving forest community of permanent homes.

A Tale that Points a Moral

So runs the tale of Cross Fork. It is merely a striking illustration of a commonplace occurrence in the development of America. Many another sawmill and lumbering town has had a similar history. A brief period of strenuous and even frenzied existence has been followed by sudden death, with prospects for a distant—sometimes very, very distant—resurrection.

Until comparatively recent years the policy, or perhaps lack of policy, on the part of the Federal and State governments in the handling of their forest lands has been such as to invite waste and to discourage permanence in the wood-using industries of the country. Pennsylvania is not alone in having disposed of its finest woodlands for twenty-six and two-thirds cents an acre, only to buy them back again for three or four dollars an acre after the timber has been removed and the land devastated by fire.

Throughout the country millions of acres of public land of far greater value for forest production than for agriculture or mining have been allowed to pass into private ownership. No particular blame attaches to the landowners and lumbermen for proceeding to realize as soon as possible all that they could from such lands. Popular opinion, for the most part, has looked on forests in much the same light as mines—as natural resource which should be turned into cold cash as rapidly as possible.

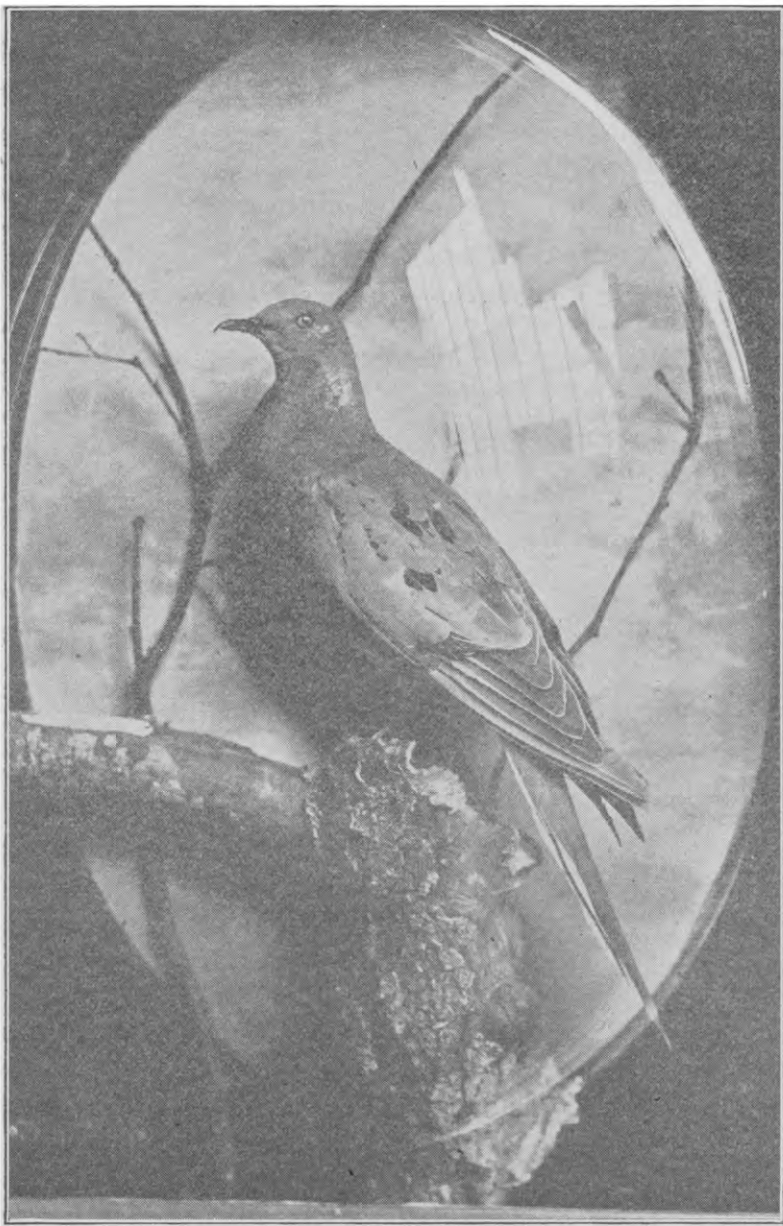
So it is not to be wondered at that cutting proceeded feverishly, with a reckless disregard for the future. Timber was forced upon the market ahead of any real demand for it, and the forest capital of the country was rapidly depleted. Money circulated freely, but only a comparatively few got rich, and the public as a whole suffered seriously. Permanent industries and permanent homes were made impossible, and deserted villages have marked the trail of the industry.

Today we know better. We know that the welfare of the nation demands that a forest should not be treated as a mine, but should be so handled as to make it possible to cut the same amount of timber year after year from any given area. We know, too, that for the long-time investment which such management involves, public rather than private ownership will have to be relied on.

The work of reconstruction which the State of Pennsylvania is now undertaking at Cross Fork points the way to what can be done under similar conditions

elsewhere. Above all, however, it is imperative to prevent repetitions of the tragedy in regions where it is not yet too late. The attainment of both objects lies in retaining and extending public ownership of lands primarily valuable for forest production. Only in an ownership which builds for the future as well as for the present can we hope for the highest possible development of our forest resources and the establishment of prosperous, permanent forest communities.





MALE PASSENGER PIGEON

Shot October 5, 1890, by Jasper H. Fincher. (Photograph Taken
December 1, 1918.)

CHAPTER XVIII.

MORE ABOUT THE PASSENGER PIGEON

(From the Pennsylvania Sportsman, Scranton, Pa.)

By R. P. ROBINSON

Member of Wilkes-Barre Camp No. 103.

Wherein the contributor of this third article of our series suggests that the extermination of the passenger pigeon may have been divinely ordained as a retribution for the barbarous methods employed in accomplishing their wholesale slaughter. How our forefathers killed and captured wild pigeons is faithfully recorded, and the story may fairly raise this question, beside pointing a moral to the sportsmen of the present day.—The Editor. May, 1917.

THE American passenger pigeon wintered in the South, and in the early spring migrated to the northern part of the United States and Southern Canada, where it raised its young and remained till the time for its fall flight southward.

I have seen a continuous flight of these birds from morning 'till night, and for several days in succession. I shall not attempt to make any estimate as to the number passing a given point in a single day, but the eminent American ornithologist Audubon, once made an estimate of the number of birds that was within his vision at one time during one of these flights, and it reached into the millions. No doubt this condition prevailed throughout a very wide latitude—probably several hundred miles—for several days.

The passenger pigeon was the most rapid and graceful in flight of any of our wild birds. Its wonderful endurance and rapidity of flight are shown by the fact that it has been killed in Canada with Carolina rice still in its craw, having covered this distance in a few hours by continuous flight.

In their migrations some of the birds flew very high in the air—often almost beyond the vision, while others flew so low that they were reached by the gunner's pellets fired from the old-fashioned flintlock guns. The noise made by their wings could be heard for a long distance. The low fliers were the ones that met with disaster in attempting to pass through the enemy's country—the settlements along the route of passage.

The usual methods of capturing the birds were by shooting and by netting, although I have known them to be killed in great numbers with clubs, and even caught alive with the hands at their roosting places in the low brush where they were hunted with lanterns and torches. I have seen the little creatures taken with the net; and while I had no hand in the sport (or crime), being only a spectator, yet I felt somewhat guilty as an accessory before and after the fact.

The pigeon-net covered probably two or three hundred square feet of ground when spread. It was usually set in an open field on as high ground as possible, that the flying birds might readily observe the decoys. To set the net, one edge or border was fastened to the ground by stakes driven down, and the one

opposite was secured to a long, stout rope which was stretched very tight between two stakes seventy-five or or a hundred feet apart, one of them being at the "bough-house," or hiding place of the fowler. This rope was drawn back to the rear one and held there with latches, and the whole net was also rolled back to the ropes, leaving the entire bed free of everything except the stool pigeon and the stool.

Grain was scattered over the bed for the birds to pick at until they were all settled. The bough-house was usually made of pine boughs or small pine trees stuck in the ground, completely hiding the fowler from sight, and was large enough for several persons to stand in. By pulling a string the latches were released and the rope, in assuming its direct position between the stakes, instantly spread the net to its full extent over the feeding ground.

The decoys for enticing the birds to their destruction were a "flier" and a stool pigeon. The flier was a live bird secured by a long cord attached to a leg and when a flock was seen in the distance the bird was cast from the hand. It immediately flew off to the full length of the cord, and then slowly settled to the ground; and if the flying birds saw it and made a move to approach, the stool-pigeon was "hovered" to keep up the attraction until they were brought to the bed.

The stool-pigeon was a bird selected for its good points, and was usually one that had been kept from the catch of the previous migrating season. I have

seen pigeon houses containing many of these birds in confinement for use when the season came.

The cruelty of this method of procuring game birds was partly in the treatment of the stool-pigeon; the poor bird's eyes being sewed shut to cause it to hover more readily. Why there was not some more humane method of blindfolding the bird seems strange at this day. A skin from the head of the bird could easily have been prepared for the purpose, and would not have been observed by the other birds.

The stool to which the pigeon was tied by the feet, was a circular piece of board six or eight inches in diameter, fastened to a stick four or five feet in length, and the opposite end was placed in a slot in a stake, thus forming a hinge so that the bird could be raised and lowered by pulling a string running to the fowler's hiding place. By raising the bird and dropping it suddenly it was made to flutter as it was going down; and the flying birds seeing it, would begin to circle around, coming nearer and nearer, until they finally lit on the bed around the stool-pigeon. Then the net would be sprung over the unsuspecting birds. At once there would be an amass of fluttering, struggling pigeons, with heads erect and protruding from the meshes of the net. The fowler and his assistants would rush to the massacre, which was the crushing of the head of each individual bird between the thumb and the fore-finger.

The shooting of the young birds or squabs from their nests was another cruel and detestable practice

of the pot-hunter when the hatching grounds were discovered. This was done when the young birds were about ready to leave the nest, and many were slaughtered at such time by the cruel gunner.

A few years before their final disappearance these birds had their hatching ground, one season that I recall, on the North Mountains near the junction of three counties of Pennsylvania, viz: Luzerne, Sullivan and Wyoming, then a wilderness of virgin timber, and far from the habitation of man. It was not far from what is now Ricketts's station, on the Bowman's Creek Branch of the Lehigh Valley Railroad. I passed through this place soon after the birds had left, and saw scores of nests on a single tree, and every tree over a large area of the forest had been similarly occupied by the birds.

Now there is not a single live passenger pigeon in North America, and probably not in the world. The cause of their sudden disappearance is one of the mysteries of the age. Could it be that their Creator, by some act through nature prevented their reproduction as a punishment of the people for their cruelty in torturing and wantonly destroying His creatures; for not, by the enactment of proper laws, protecting them from the cruel, criminal and wasteful methods adopted for their destruction? If we could believe this, we might be more earnest in our efforts to conserve the wild life that still exists in our fields and forests—more anxious to save from extinction other species of the feathered creation.

Editorial Comments

Within the memory of men still living, countless millions of wild pigeons passed over Pennsylvania in their migratory flights. Old residents can recall the time when from horizon to horizon flying birds were seen in flocks so large and so compact as to obscure the sun. Fifty years ago wild pigeons were still common game birds, and thousands of them could be observed in their seasonal flights, but today it is admitted that the last passenger pigeon in the world, so far as is known, died in the Cincinnati Zoo during the fall of 1914.

Large rewards were offered for a mate for the last wild pigeon in the hope that the species might be saved from total extermination. But not one could be found. And in order that the bird might be properly mounted upon its death, the keeper carefully saved the feathers dropped each year for the taxidermist. So the bird has been preserved—by taxidermy—but the species is now totally extinct.

Lest sportsmen of the present day forget the wild pigeon, we deem it proper to quote from a chapter of "The Pioneers," James Fenimore Cooper's first published Leather Stocking Tale, which appeared in print ninety-five years ago. It is a delightful story of fascinating interest to sportsmen. Moreover, it is historically correct as to scenes and circumstances, although some of the characters are undoubtedly fictitious. In the person of Leather Stocking, otherwise

called "Natty," we recognize the spirit of a true sportsman of modern times. Billy Kirby and Richard typify the pot-hunter and game hog, whose descendents still range at large in Pennsylvania after nearly one hundred years of protest against their practices.

Chapter twenty-two is particularly of interest to sportsmen for it relates the circumstances of a wild-pigeon flight a century ago. Vividly Cooper describes the incidents of the pigeon slaughter and the methods employed in that day. The scene is along the headwaters of the Susquehanna river in New York state. The events described, however, as correctly show the practices of early Pennsylvania hunters as they do those followed at that time in New York. How thoughtless were the hunters of that day! The chapter is too long to reprint in its entirety, but the following paragraphs, with some abbreviation, tell the tale of long ago. And we believe it will be appreciated by the true sportsmen. If it engages the attention of any others who do not exercise restraint in hunting such of our game birds as still remain, we commend for their particular study the sage observations of Leather Stocking.

CHAPTER XIX

“THE PIONEERS”

(Abridged)

“**S**EE, Cousin Bess! See, Duke, the pigeon-roosts of the South have broken up! They are growing more thick every instant. Here is a flock that the eye cannot see the end of. There is food enough in it to keep the army of Xerxes for a month, and feathers enough to make beds for the whole country. Xerxes, Mr. Edward, was a Grecian king, who—no, he was a Turk, or a Persian, who wanted to conquer Greece, just the same as these rascals will overrun our wheat fields, when they come back in the fall. Away! Away! Bess, I long to pepper them.”

“If the heavens were alive with pigeons, the whole village seemed equally in motion, with men, women and children. Every species of fire-arms, from the French ducking-gun with a barrel near six feet in length, to the common horseman’s pistol, was to be seen in the hands of the men and boys; while bows and arrows, some made of the simple stick of watn at sapling, and others in the rude imitation of the ancient cross-bows, were carried by many of the latter,

“The houses and signs of life apparent in the village, drove the alarmed birds from the direct line of their flight, toward the mountains, along the sides and near the bases of which they were glancing in dense

masses, equally wonderful by the rapidity of their motion, and their incredible numbers.

“Among the sportsmen was the tall, gaunt form of Leather-Stocking walking over the field, with his rifle hanging on his arm, his dogs at his heels; the latter now scenting the dead or wounded birds, that were beginning to tumble from the flocks, and then crouching under the legs of their master, as if they participated in his feelings at this wasteful and unsportsmanlike execution.

“The reports of the fire-arms became rapid, whole volleys rising from the plain, as flocks of more than ordinary numbers darted over the opening, shadowing the field like a cloud—arrows and missiles of every kind were in the midst of the flocks; and so numerous were the birds, and so low did they take their flight, that even long poles, in the hands of those on the sides of the mountain, were used to strike them to the earth.

“During all this time Mr Jones, who disdained the humble and ordinary means of destructions used by his companions, was busily occupied, aided by Benjamin, in making arrangements for an assault of more than ordinarily fatal character. There had been found, at Templeton, at its settlement, a small swivel, which would carry a ball of a pound weight. It was thought to have been deserted by a war party of whites, in one of their inroads into the Indian settlements. It was somewhat the worse for the service it had performed, it is true, there being but a trifle difference in size, between the touch-hole and the muz-

zle. Still, the grand conceptions of Richard had suggested the importance of such an instruments in hurling death at his nimble enemies. The swivel was dragged by a horse into a part of the open space that the Sheriff thought most eligible for planting a battery of the kind, and Mr. Pump proceeded to load it.

"Leather Stocking was a silent, but uneasy spectator of all these proceedings, but was able to keep his sentiments to himself 'until he saw the introduction of the swivel into the sports.

"This comes of settling a country!" he said. "Here have I known the pigeons to fly for forty long years, and, till you made your clearings, there was nobody to scare or to hurt them. I loved to see them in the woods, for they were company to a body, hurting nothing; being, as it was, as harmless as a garter-snake. But now it gives me sore thoughts when I hear the frighty things whizzing through the air, for I know its only a motion to bring out all the brats of the village. Well! the Lord won't see the waste of his creatures for nothing, and right will be done to the pigeons, as well as others by and by."

"Thou sayest well, Leather Stocking," cried Marmaduke, "and I begin to think it time to put an end to this work of destruction.

"Put an end, Judge, to your clearings. Ain't the woods His work as well as the pigeons? Use, but don't waste. Wasn't the woods made for the beasts and birds to harbor in? And when man wanted their flesh, their skins, or their feathers, there's the place



OFFICER JASPER H. FINCHER
(Photograph by Shempp Studio, Williamsport, Pa.)

to seek them. But I'll go to the hut with my own game, for I wouldn't touch one of the harmless things that cover the ground here, looking up with their eyes to me, as if they only wanted tongues to say their thoughts."

"With this sentiment in his mouth, Leather Stocking threw his rifle over his arm, and followed by his dogs stepped across the clearing with great caution, taking care not to tread on one of the wounded birds in his path. He soon entered the bushes on the margin of the lake, and was hid from view.

"Whatever impression the morality of Natty made on the Judge, it was utterly lost on Richard. He availed himself of the gathering of sportsmen, to lay a plan for one fell swoop of destruction. The musket men were drawn up in battle array, in a line extending on each side of his artillery, with orders to await the signal of firing from himself.

"Some millions of pigeons were supposed to have already passed, that morning, over the valley of Templeton, but nothing like the flock that was now approaching had been seen before. It extended from mountain to mountain in one solid blue mass, and the eye looked in vain over the southern hills, to find its termination. The front of this living column was distinctly marked by a line but very slightly indented, so regular and even was the flight. Even Marmaduke forgot the morality of Leather Stocking as it approached, and, in common with the rest, brought his musket to a poise.

“Fire!” cried the Sheriff, clapping a coal to the priming of the cannon. As half of Benjamin’s charge escaped through the touch-hole, the whole volley of the musketry preceded the report of the swivel. On receiving this united discharge of small-arms, the front of the flock darted upwards, while at the same instant myriads of those in the rear rushed with amazing rapidity into their places, so that when the column of white smoke gushed from the mouth of the cannon, an accumulated mass of objects was gliding over its point of direction. The roar of the gun echoed along the mountains, and died away to the north, like distant thunder, while the whole flock of alarmed birds seemed, for a moment, thrown into one disorderly and agitated mass. (Then they collected the dead birds and everybody joined in the feasting.)



CHAPTER XX

THE BINGHAM ESTATE

Story of the Original Owners of Large Tracts of Land in Potter and Adjoining Counties.

Written by M. J. Colcord, Editor, 1916
(From the Potter County Journal)

WHOEVER has had to deal with land titles in Potter county has surely become familiar with the name of Bingham, as the title to most of the land is traced back to the "Bingham Estate" in northern and western Potter. No doubt many who own such land today have little knowledge of the original owners of what was mostly a dense forest but little over a hundred years ago.

Mr. A. B. Mann, whose knowledge of early titles is probably as good as any man in the County, has an exemplification of some deeds made in 1796 for 249,000 acres in what was then Lycoming county, from William Bingham to parties who finally conveyed to John Keating and others, trustees, of which grantees, one was John S. Roulet (notice the spelling) after whom Roulet township was named. So it seems that most of Potter county landtitles trace back to William Bingham. He derived title from state patents and deeds from William Willing.

The Bradford Star of recent date throws some light on this topic, in connection with the income petroleum is still yielding to the Bingham heirs. Quoting the Public Ledger for the text, The Star says:

Girard, who conducts an interesting column of gossip and comment in the Public Ledger Daily, has something to say of the Bingham estate which lies upon the big level between here and the county seat and which has enriched individuals and companies in the past forty years with its great stores of petroleum.

Girard says: "William Bingham was one of Pennsylvania's early United States senators, and he married a daughter of Thomas Willing. Here was a combination of great wealth, civic and political leadership and social prestige.

"Bingham's daughter became the wife of Mr. Baring of England—the Lord Ashburton of treaty fame—and in that way the celebrated family of London bankers became large owners of land in northern and northwestern Pennsylvania.

Effingham B. Morris, who, with John G. Johnson, is trustee of the William Bingham estate, tells me that his descendants still own some land in Pennsylvania. The Barings were lucky enough to have thousands of acres in the oil region, and Keystone state petroleum was a tidy thing to own around 1890, when the Baring Brothers' failure shook the whole financial world.

“Bingham also owned three million acres along the coast of Maine. This included Mount Desert, and this was apparently so valueless that for years the heirs could not sell it at any price.”

Oil operators on the Bingham estate, it is said, have found it impossible to buy any of the Bingham lands, and the Bingham estate never operated on any of the Bingham lands, contenting themselves with the royalties thereon which have been sufficient to pay the estate millions of dollars, all of which, it is said, has found its way to England. The agent of the estate, with whom local operators do business is Frank A. Deans, attorney-in-fact, located in Wellsboro. Just who the Bingham family has always been a mystery to most people here, although the Bingham estate is as well known as any oil property in the whole Bradford field.

Mr. Girard's story of William Bingham and his heirs will be news to most readers who never took the trouble to look up the history of the family that has profited so largely by their good fortune in being the possessor of rich oil land which most of the heirs have never seen. The land cost William Bingham 13 cents an acre.

(The tract of 249,000 acres, about a third of Potter county, was the Ceres Company's principal tract. John Keating was managing trustee. Francis King was his agent.)

Indian Supervision of a Game Preserve—The Garden of Manitto

(By John C. French)

The forests along the springs, brooks and rivulets that constitute the Allegheny river sources, were a sort of wild game preserve of the Seneca Indian nation, from about 1600, when they began to occupy the region and had a principal town—Tununguam—ten miles below Olean, New York, on the north bank of the Allegheny, opposite the mouth of the Tuna Gwant creek, which flows from the highlands near Mount Alton, McKean County, Pennsylvania, past the city of Bradford. The Kinzua creek rises near Mt. Alton and flows westward about thirty miles to the river, forty miles below the mouth of the Tuna Gwant. These valleys were then a hunter's paradise, and the upper Allegheny was Manitto's garden.

The Rev. Dr. Geo. P. Donehoo, the historian, spoke at Coudersport, in October, 1916, at the dedication of a boulder to commemorate the trip of David Zeisberger, Moravian Missionary, through Potter county in 1767, at which time he camped near the river at Coudersport, on October 8, 1767, and continued his journey, down the Allegheny, being the first white man permitted to penetrate and pass through that region, telling at length how strictly Indian sentinals guarded every trail that led into the sacred breeding ground they protected from trespassers and desecration. That C. F. Post and his Indian guide, in 1760, had sought permission to pass from the Cowanesque river to the

Allegheny; but they had been turned back at Passigachkung, near Knoxville, in Tioga county, and returned to Bethlehem, to go from there over the southern trail to the West.

The history of Indian supervision of the region was told to the writer, many years ago, by the Senecas themselves, Capt. John Titus, King Jimmerson, Junior, Thomas Scrogg and Andrew John, Junior, when engaged in hemlock lumber operations, on lands adjoining the Allegheny Reservation, on its South border, which made it necessary to negotiate with the Senecas for roads, skidways, banking grounds for logs; and for millsites and lumber yards upon their lands.



CHAPTER XXI

ROMANCES OF AN OLD FOREST ROAD— ONCE USED BY MARQUIS DE LAFAYETTE

(The First Natural Gas Well)

(By JOHN C. FRENCH.)

IN 1824, the party that started from Philadelphia, by train of coaches, horses and packmules, crossed the Susquehanna and soon entered the forest along the West Branch, to view the beautiful highlands of Pennsylvania. They passed through McKean County, along the new-made forest road, over the ridges and westward through Hamlin township, and northerly through Lafayette township, crossing the Kinzua Valley five miles west of the great viaduct of the Erie railroad, and climbing to the crest of the range beyond, near Marshburg; thence through Hamilton township, past the oil-field "Klondike," of recent decades, and westerly, down the backbone ridge, to the Kinzua Village on the Allegheny river, at the confluence of Kinzua creek and the river; thence northerly to lake Chautauqua, and to Fredonia, New York, near the shore of Lake Erie, where the hotel was lit by natural gas, from the well bored in 1821.

The trip was for entertainment of the great Frenchman and to endow him with the land that bears his name, in the midst of the rich oil and gas fields, that developed later, 1880-1910, and the forest road was

built for that trip, alone, and seldom made use of afterward, except for short distances, here and there. The Christian Science Monitor, of Boston, recently told the story, as follows:

Marie Paul Jean Roch Yves Gilbert Motier, the Marquis de Lafayette, paid three visits to America, the first in 1777, the second in 1784, and the third in 1824. Thus, nearly half a century intervened between the times of his first and last arrival. Great changes had taken place in the interval of forty-seven years. George Washington, his almost idolized commoner was no longer here to welcome him. Adams, Jefferson and Madison, who had been numbered among his intimates in the old days, had each in turn, served in the chief magistracy of the young republic which he had helped to found. The war of 1812 had become merely an unpleasant memory. The great disturbing human factor of the period had at length been quieted on the lone island of St. Helena.

France was in a stage of transition; the revolution of 1830 was six years off. James Monroe, who was in the battle of Brandywine with Lafayette, was now President of the United States. The area of the nation had been broadened by the acquisition of Louisiana and of other territory. The number of the states had nearly doubled since the Revolution. Settlements and villages were dotting those parts of the country that were unpeopled when Lafayette was a young man; hamlets had become towns; towns had become cities; cities had grown to amazing proportions; Wash-

ington had been founded and partly built, and the national capital had been moved there from Philadelphia. The years had had their tragedies: Hamilton had fallen at the hands of Burr, and Burr's unbridled ambition had been his own undoing; Dorothy Payne, after becoming Mrs. Todd had become Dolly Madison, and had reigned through Jefferson's and her husband's administrations. She was no longer First Lady of the Land, but she still held her place as "Queen of American Society."

A new generation had come upon the scene. New leaders claimed popular attention and interest. Some of them were exceptionally able men. There were, for instance, Clay, Calhoun, Randolph and Webster. Lafayette was to lay the corner stone of Bunker Hill Monument, and to hear the great New Englander deliver, on that occasion, one of his finest orations.

The reception of Lafayette, on his last visit, was as spontaneously enthusiastic as that which Joffre and Viviani are receiving today. New York was comparatively small then, but it seemed to witness of the scene at the Battery, that when the guest of the nation arrived the whole population was there to welcome him. The city was decorated, much as it has been with a great display of bunting, the Stars and Stripes and the Tricolor being everywhere intertwined. The landing initiated a series of ovations which extended over the length and breadth of the country. Lafayette, in response to popular demands, made a tour through the twenty-four states then in the Union, covering al-



JAMES V. BENNETT

Famous Pigeoneer, Now a Leader in Business and Financial
Circles, Williamsport, Pa.

together 5,000 miles. His reception in Boston, Baltimore, Philadelphia and other of the larger communities, was correspondingly as enthusiastic as that in New York. In New England, boys and girls strewed flowers in his path. He went into the small as well as the large towns. He was received with special honors by the President, with special distinction by Congress. He was presented with a purse containing \$200,000, and with a township of land. He was lionized socially. From the moment of his arrival to the moment of his departure he was the recipient of every thoughtful and delicate attention.

Early in his visit he went to Mount Vernon and paid tribute to Washington. He dedicated a monument to Baron DeKalb at Camden, S. C., and participated actively in many other functions. Those were still coaching days, and Lafayette was continually in demand at country homes. This will partly explain the number of chambers and beds in which he slept that are still to be found along the route of his travels. Whenever possible, the chambers and the bedsteads were preserved. Rooms in which Lafayette slept, beds upon which he reposed, are very plentiful in New England today. Probably most of them are genuine. One likes to think they are.

The Bunker Hill Monument cornerstone laying brought people from all parts. One account says that "everything on wheels and everything that had legs" moved toward the historic high ground in Charlestown on that day. Webster was at his best. Lafayette

met and greeted many survivors of the battle. When he arose to perform his part of the ceremony the enthusiasm knew no bounds. He stood silent for minutes before the mass of cheering people. Tears coursed down his cheeks. Here was the apotheosis toward which all previous manifestations of appreciation and gratitude had been tending.—Christian Science Monitor.

About the old forest road there was ever much speculation by modern nimrods, fishermen and campers, who chanced to follow it a short distance, through a forest that was primeval, previous to 1890, and many explanations of the cause for it; some said Alexander McClain built it in 1788, when the surveys of the land were first made to establish certain transit lines, by "monuments on the land," from which to make maps and locate the streams upon certain sections, or warrants, as plotted on the maps, and given numbers, as sold.

Some called it the "Boone Road," and believed that emigrants to Kentucky, soon after the Revolution, had constructed it to descend the Allegheny upon timber rafts, and in canoes, from Kinzua; and some called it "The French Road," giving its origin a military bias, with the explanation that, during the French and Indian war, between 1755 and 1763, the French soldiers, scouts and voyagers had cut a road, to secure supplies over, from Frenchville and other Pennsylvania towns, to support the occupation near Lake Erie, during winters when the lake was closed.

But the version of certain old men, dwelling in Lafayette township and vicinity, in 1889, gave it as outlined in the beginning of this chapter, which the writer believed then; and has found no records that dispute it. Ordinary histories give few details of the great forest pageants, of our earlier times, while often giving great space to unimportant occurrences, along the seaboard and within our great cities. It is difficult, now, to decide definitely, as to the uses of the road, here mentioned, and all of the tales of it may have been founded upon facts, in each case; for each purpose, it may have been used. Westward voyagers, in 1788, made canoes near Port Allegheny, Canoe Place, and descended the river. They traveled up the Sinnemahoning, over the divide, and down Portage Creek, to "Canoe Place."



CHAPTER XXII

THE INDIAN MARATHON—MARCH OF CAPTAIN TITUS

(From Olean Evening Times, by JOHN C. FRENCH.)

ON July 25, 1881, at Carrollton, N. Y., on the Seneca Indians' Allegany river reservation, the venerable Capt. John Titus, a Seneca chieftain, sitting in an arm chair on the shady porch of John Maroney's hotel, told the writer the story of the great march made by himself at the head of 100 Seneca youths, from Kill Buck's town, near Salamanca, to Big Tree, near Lake Erie and West Seneca, and thence by batteaux and canoes across the foot of the lake and down the Niagara river to the beginning of the rapids, and a forced march of two miles to the battle line of Lundy's Lane, between dawn and sunset of July 25, 1814—the American marathon race of 80 miles to help the weary 2,000 Americans win the day against about 4,500 British soldiers and Indian scouts.

Seneca John Titus was born in 1784 and at the age of 97 years was erect and strong, as is usually the case at 70 years, and over six feet tall. In his youth he was taught to read and the tactics of scouting for an army by the veteran John Gideon Martin, scout of Oriskany, who visited Ceres, N. Y., in 1798, to protest against the improvements, begun by Francis King at that time, on King's Run, south of the state line, for the Ceres Company which had received title from

William Bingham of Philadelphia to nearly 300,000 acres of forest land in the counties of Potter and McKean in Pennsylvania. Mr. King was the agent for John Keating, the managing trustee of the corporation—The Ceres Company.

The Susquehanna Company claimed to own the land from the Conewango, at Warren, Pa., to the Susquehanna, between the 40th degree of latitude and the New York line, under a grant from Connecticut which claimed all north of the 40th parallel, in Pennsylvania. Mr. Martin represented the Connecticut claimants and spent much time in the forest, taking the Indian boy with him for a year or two before 1800, when the courts finally disposed of the matter that had caused the "Yankee-Pennamite War" for more than half a century.

From April to July of 1814, Gen. Winfield Scott established, near Buffalo, a camp of instruction and drilled his raw levies in the French tactics with such effect that on July 3d they took Fort Erie, opposite Buffalo, by assault; and on July 5th, fought the drawn battle at Chippewa in Ontario. Young John Titus had been at the camp for training and he served as chief of scouts at the two battles with such credit that General Scott sent him to the Seneca reservations to select and train 100 Indian athletes and runners for service in Canada. On July 24, 1814, a runner brought an order to Titus that a battle was imminent and ordering him to report at Fort Erie with his company of scouts in the shortest possible elapse of time.

A messenger, sent to Cattaraugus, took command of the contingent from there. Another runner, dispatched at once by Titus, told the commandant at Fort Erie that the Indian boys would be at Big Tree, near Lake Erie, at 5 o'clock, on July 25th, ready for boats, arms and ammunition. The boats were sent, with food, arms and military jackets for the boys. Sixty Indians went with Captain Titus by boats to Niagara Falls and joined the fight at sunset. Attached to the command of Col. James Miller, as scouts, the Indian boys crept through brush and weeds to the fence, near the British center, and poking their guns between the rails, in the dusk, waited for their opportunity to rush upon the men who served the seven cannon upon the little eminence within sound of the cataract.

There was a lively attack by Col. Miller and his regulars; the cannon were trained on the soldiers; the Indians waited, forgotten by everyone; night had closed in and the battle was ending for the night; another discharge of the battery would enable the British to rush the Yankees back to the Chippewa; the guns were primed for the last shots needed; the gunners lighted their matches, holding them for the order, "Fire!" It never came. The Indian scouts aimed at the lights; Captain Titus whispered a hissing order, "Ouisheeh," their fingers pressed the triggers; the guns lighted up the dark band of brush along the fence; the Canadian gunners fell as the Seneca war-cry rose above the din and roar of battle, and Miller carried the height.

Ancient Indian Ceremonies, Customs and Wonders

(By John C. French)

It is frequently of benefit and interest to us to review what the earliest white visitors to the great Allegheny forest said of the redmen they met and the wonders they were shown by the enthusiastic Indians. A letter dated, 1629, and published in Sagard's "Historie du Canada," 1632, describes a visit to the Senecas, 1627, by the Franciscan, Joseph d'Allion to the oil spring, near Hinsdale, New York, "Ischua," shown to him by the Indians, the name is equivalent to, "Oil-place" or "Plenty-oil-here." The oil was collected by the Indians and used as a liniment in treating sprains, frost-bite and rheumatism and internally, for colds and bronchial inflammations; and "to destroy the serpent within, that causes fever and chills."

The writer saw the ceremonies at the oil gathering of 1881; and in 1883, Mr. Ashburner, a Pennsylvania geologist visited Cuba, New York, and saw the proceedings, which he described to Professor Silliman, in words, as follows:

"The oil spring, or fountain, rises in the midst of marshy ground; it is a muddy and dirty pool of about 18 feet in diameter. The water is covered with a thin layer of petroleum, giving it a foul appearance as if coated with dirty molasses, having a yellowish-brown color. They collect the petroleum by skimming it like cream from a milk pan. For this purpose they use a broad flat board, made thin at one edge like a knife. It is moved flat upon and just under the surface of the water, and is soon covered by a thin coating of the pe-

troleum, which is so thick and adhesive that it does not fall off, but is removed by scraping the instrument on the lip of the trough or pot. It has then a very foul appearance like very dirty tar or molasses; but it is purified by heating and straining it while hot through flannel or other woolen stuff. It is used by the people of the vicinity for sprains and rheumatism and for sores on their horses, it being in both cases rubbed upon the part. It is not monopolized by anyone, but is carried away freely by all who care to collect it, and for this purpose the spring is frequently visited. I could not ascertain how much is annually obtained; but the quantity is considerable. It is said to rise more abundantly in hot weather than in cold. Gas is constantly escaping through the water, and appears in bubbles upon its surface."

The Indians have used crude oil for several centuries and proudly led Joseph d'Allion over the hills to show him their wonderful treasure. In 1748, Peter Kalm, a Finnish naturalist, was at the oil springs along Oil Creek, in Venango County, Pennsylvania, and indicated them upon the map that was subsequently published. French soldiers and officers were led to them also, as a letter from Lieutenant Joumonville, 1750, shows, explaining the impressive ceremony in that wild forest, as only a Frenchman could, translated as follows:

"I would desire to assure you that this is a most delightful land. Some of the most astonishing natural wonders have been discovered by our people. While

descending the Allegheny, 15 leagues below the mouth of the Conewango and 3 above the Venango, we were invited by the Chief of the Senecas to attend a religious ceremony of his tribe. We landed, and drew up our canoes on a point where a small stream entered the river. The tribe appeared unusually solemn. We marched up the stream about half a league, where the company, a large band it appeared, had arrived some days before us. Gigantic hills begirt us on every side. The scene was really sublime. The great Chief then recited the conquests and heroism of his ancestors. The surface of the stream was covered with a thick scum, which, upon applying a torch at a given signal, burst into a complete conflagration. At the sight of the flames the Indians gave forth the triumphant shout that made the hills and valleys re-echo many times. Here, then, is revived the ancient fire-worship of the East; here, then, are the children of the Sun."

Ancient oil pits, sometimes containing trees of the growth of centuries, are said to have been found in the vicinity of Oil Creek, where erosion had cut through the covering and exposed the stratum of oil-saturated sand. The oil then floated upon the surface of the pools that formed below the source of it and the Indians threw poles across the stream, in time of flood, to hold back the oil, which accumulated in thousands of gallons, and when lighted, burned slowly for ten or twelve hours on the surface of the stream. Truly, a wonder, sending a black smoke-column thousands of feet high, in the still air.

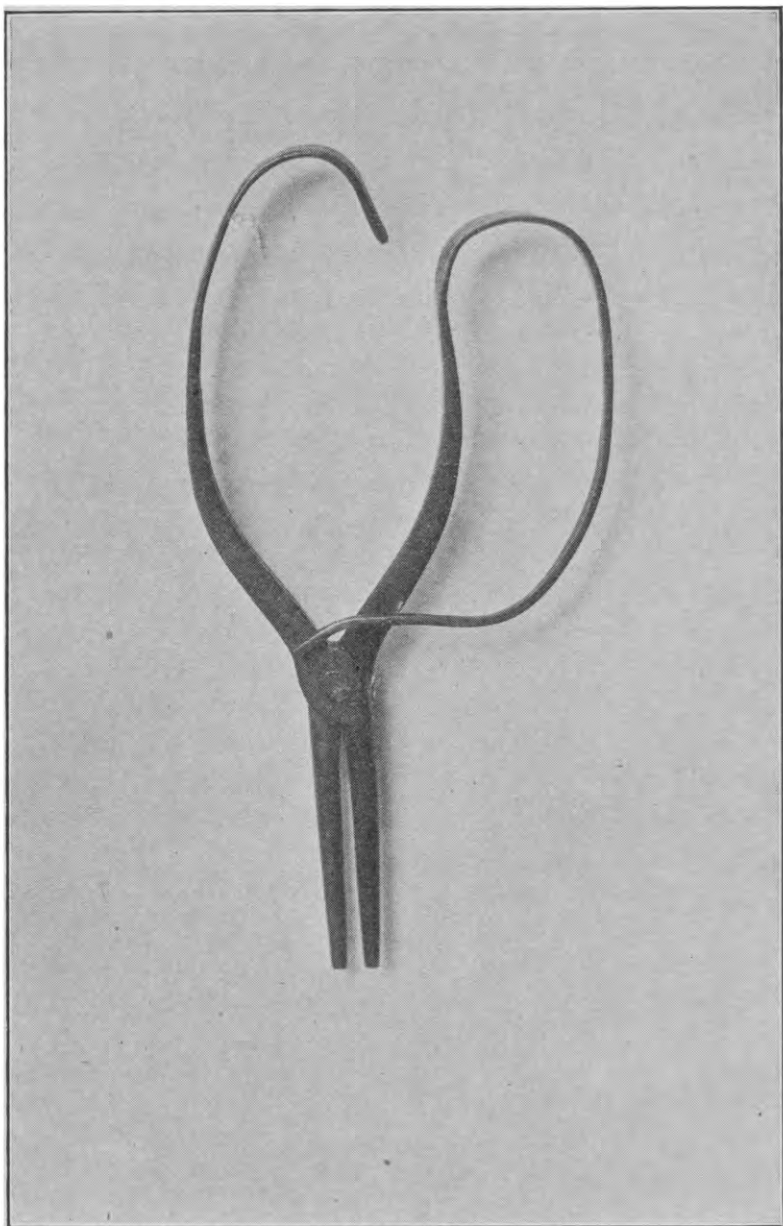
CHAPTER XXIII

FROM FOREST LORE AND OBSERVATIONS— CONSERVATION AND DESOLATION

(Written by John C. French)

THE village of Ceres, New York, was located at the line between the states, upon Oswayo Creek; and at the south, in McKean County, Pennsylvania, lies the township of Ceres, through which flows King's Run to join the Oswayo. The village and the township commemorate the name of the Ceres Company, which acquired nearly 300,000 acres of the Bingham lands, in Potter and McKean counties, Pennsylvania. Francis King located a mill for grinding grain and sawing lumber, in 1798, near the confluence of the stream, on King's Run, the beginning of developments in McKean county; and the forests were administrated conservatively, until 1872, the dawn of the hemlock era, in that part of the Allegheny watershed, when railroads had been completed into that section and tanneries built.

The Ceres Company's lands were disposed of, during 87 years, and the hemlock timber passed into control of the tanners, lumbermen and their financial allies, a few years later. From 1872, the boom expanded, for twenty years, as the riot of devastation continued unabated. Tanneries became more numerous and sawmills were improved and enlarged. Tramways penetrated the forest, over which the bark and the peeled logs were moved rapidly, in all seasons of the year.



PINCERS

Invented, Patented and Used by James V. Bennett, Which
Effectually Reduced the Cruelty at the Wholesale
Butcheries to a Minimum

The water-power mills, of transitory efficiency, were augmented or supplanted by the more stable and reliable steam engine, and circular or rotary saws replaced the mulay and the sash-saw varieties. The hum of industry broke over the quiet valleys and the hills re-echoed with steam-whistle music, where, lately, had been heard only the solitary cry of the panther, the howling of the wolves, hooting of owls, or the hunter's rifle that broke the forest stillness.

Forest fires swept over the slashings and consumed the beech trees and the other hardwoods. The animals fled and the pigeons came no more. The birds languished and the larvae of millers and bugs grew fat upon hemlocks, and the other trees. Cyclones laid the forest flat and the summer sun dried up the mountain brooks, until the trout abandoned them. The hunters and fishermen no more sought their prey in the forests; but degenerated in the softness of the dissipating sports they patronized. The elements and the flight of Time, augmented by the wastefulness of man, narrowed the forest, from year to year, until the denuded hills arose, in the grimness of desolation, like spectres of a diseased imagination, to rebuke a wanton generation.

But there are compensating facts to comfort the guilty despoilers. They sought a livelihood in harvesting the ripe crop of hemlock, that Nature had planted and tended, against the time of need, and in developing our great nation, to add its wealth to that

of the world and preserve the priceless gleam of Liberty, for humanity and truth. The hemlock industry furnished materials for producing leather and for constructing comfortable homes, throughout the central and eastern states, at less cost than any other. It made a rich empire of a trackless forest, and supplied the necessary funds to improve the counties that have been created, to erect substantial public buildings, safe bridges and good roads; and it fostered a profitable and convenient home market for the products of agriculture. The industry provided inducements for constructing permanent and valuable railroads that will continue to benefit the entire Commonwealth in all future time.

Unreasoning sentimentalism prompts us to blame only the lumbermen and the tanners for the destruction of our beautiful forests, during the last forty years, while others are equally responsible for their sins of omission, in past decades, and which continue to blind many people. Preserving a forest should be a matter for a nation, state, county, city or a township, to administer for the public and with public funds; because the benefit cannot be reduced to a per cent. increment. There is beauty, health, climate, recreation and many other benefits, in which all should share to the fullest extent. Private enterprise cannot compete, over so long a period and broad a space. We should cultivate ten million acres of forest in the Keystone state—and do it now.

Forty-four years ago, the voice that was crying for

forest legislation—Governor Hartranft—met with no response from the people. A dozen years passed away before the matter came up again, and a report to Governor Beaver was authorized, paving the way for legislation; but nothing came of it. Governor Pattison (1891-4) succeeded in getting favorable legislation for 3 preserves, of 40,000 acres each, from lands sold for taxes. Governor Stone, (1899), found that the state owned less than 20,000 acres of forest land, and in 1901, he succeeded in getting a favoring law, under which half a million acres were purchased, before his administration closed, in 1903. Under that law we soon had about a million acres of forest preserves. But recent additions have been of slight importance.

Hereafter no administration should be approved of, that has failed to add to our forests a hundred thousand acres, by purchase and planting trees, until a magnificent total of ten million acres are under state control. In various counties, such unreasonable valuations for taxation have been made by the assessors and confirmed by the county commissioners, supported by the people, that owners of forest lands have been forced to cut and market the timber to avoid total confiscation of their estates. This did not tend toward the preservation of the forests, in private ownership, nor invite capital to reinvestment in renewing forests for another generation; but it did compel the investors to liquidate, as fast as possible, and to allow the denuded lands to be sold for taxes, or to the Commonwealth for forest renewal.

CHAPTER XXIV

A HIT FROM THE SHOULDER

The Other Side of the Question—Why Forests Were Destroyed

(By an Old Forester)

WRITTEN for Altoona Tribune by C. W. Dickinson, veteran woodsman and hunter, with Foot Notes by John C. French.

“Why are our forests disappearing so fast?” The writer had heard this question asked many times, and as many theories advanced as to what ought to be done to save some of Pennsylvania’s fine forests. All the theories we ever heard advanced in this matter are simply foolish rot. We are going to give you some facts and figures to show why this land is being denuded of the trees growing thereon.

In 1888, F. H. and C. W. Goodyear purchased a tract of land of about 29,000 acres; 2,000 acres were in the northeast corner of Cameron county, 3,000 acres in the northeast corner of Elk county, and 24,000 acres in McKean county, in the townships of Norwich and Sergeant. This is the forest land that our statement refers to. The assessors of the two townships have kept increasing the value of those lands for years until about twelve years ago, when they had gotten the valuation so high that they dare not put it any higher.

The assessors, with the aid of the county commissioners, put the valuation of these lands at \$75 per acre on all of this tract of forest, or timber land, with an additional \$4 per acre as mineral land, making the total valuation on these lands \$79 per acre, which is the amount the assessment books in the commissioner's office shows. There is about 1,200 acres of this tract which the timber was cut off of something like twenty years ago, so that would leave nearly 23,000 acres of this tract of timberland in the two townships above mentioned. The taxes levied on the assessed valuation in the county is about 33 mills on the dollar. Twenty-three thousand acres valued at \$79 per acre, would put the valuation of this tract of land at \$1,817,000; but with a 33 mill levy it would make the annual tax on this property \$59,961. In ten years' time the taxes on this same property would amount to \$599,610. Now, with the risk of cyclones and wind storms which blow down quite a lot of trees annually, and the risk they run against forest fires, what chance have the owners of forest lands but only to cut off the trees as quickly as possible? For no man living can pay such outrageous taxes and live on. It would only take a few years to put him to the wall. This looks to me like a legal robbery.

One of the assessors who raised this valuation to \$75 per acre owns a farm that is nearly surrounded by the lands in question, there being only about eleven rods of his boundry line at the northeast corner which do not join these wild lands. He has two houses, two

barns and other outbuildings and about half of his land is cleared and under a good state of cultivation. With all the improvements on his land and about half of his farm a forest, the same as the land adjoining, he only assessed his land at \$8 per acre, while the land adjoining him on all sides, minus eleven rods, was assessed at \$75 per acre. How much value would a man like this attach to the oath he was required to take before taking up the duties of an assessor?

If a man had wild land given to him he could not hold it twenty-five years, unless he was at least a millionaire. But we will wager dollars to buttons that he would never get back the amount he had paid in taxes, to say nothing of the use of the amount he had paid in taxes for the twenty-five years.

C. W. DICKINSON.

Concord, Mass., May 23, 1917.

Compounding Taxable Values On the Forest Land

This method of taxation, based upon the value of the product of past years, that had been taxed, from year to year, as it matured, was confiscation of property, by compounding the yearly earnings of the land; instead of basing the tax at about the value of growth of timber, for the year it was levied for, and paid, seems to evade and annul, in fact, the fairness contemplated in Section I, of the First Article of the Constitution of the Commonwealth of Pennsylvania. It also ignores the principle that our usury laws are founded on.

The first clause of Section I, Article IX, of our constitution, is, likewise, set at naught, by the unfair practice described in the above letter. While classes of subjects may be legally made, for the purposes of taxation, there should be no frivolous or selfish motive masked by a technical compliance with the statutes, made and provided, while the spirit of the constitution is made abortive.

As stated in his letter, Mr. Dickinson has given a brief outline of the tax history of the lands only, that lie in the townships of Sergeant and Norwich, in McKean county. The 5,000 acres in the counties of Cameron and Elk are not included in his history of valuation and the taxes levied, which became so burdensome that the owners decided, about five years ago, to remove the bark and timber as rapidly as possible. It had been held by them 24 years, since 1888, and was the last forest of original hemlock timber left in the entire state.

The last hemlock will be cut into lumber in the near future, and the small trees can become great when forest fires cease to destroy them. Like the passenger pigeons, the hemlock timber of Pennsylvania has served mankind and is gone. Both may be cultivated in future years; but never shall either be seen upon the earth, as the birds and the trees were beheld fifty years ago, when our Black Forest existed, clothing hills and valleys with verdure and the gloom of a real "umberland."

CHAPTER XXV.

BIOGRAPHICAL OUTLINES

John J. Audubon

JOHN J. Audubon, author of "Birds of America" has been termed a "man of mystery." The date and place of his birth has been variously given, his parentage and antecedents, as well as his early life have been described at most as "shadowy." Thanks to Prof. Francis H. Herrick of Western Reserve University, the gifted author of "The Home Life of Wild Birds," all the doubt and mystery have been cleared away and set before the public in a substantial two volume biography, issued in 1917, entitled "Audubon the Naturalist." It appears that Audubon was the natural son of a wealthy Frenchman, and was born in Haiti, April 26, 1785. His mother was a French Creole girl known as Miss Rabin. At four years of age he was taken to France, with his little half sister Muguet, where both children were cordially received by the childless wife of the substantial Frenchman, and were later legally adopted by the couple. The boy studied art under the great master J. L. David in Paris, and returned to America in 1803. He settled at "Mill Grove," on Perkiomen Creek, in Pennsylvania, and for a time resided at Lititz, Lancaster County. In 1806 he returned to France and for a short period served in the French navy. In 1808 he married

Miss Lucy Bakewell, of Philadelphia, daughter of a former employer. Then began his period of wanderings with his family, into the wild regions of the middle west, which were the inspiration of his later ornithological works. He engaged in many business enterprises, but much of his time was spent studying and sketching the wild birds. He was many times in desperate straits, and for a time gave dancing lessons in Mississippi. With the nucleus of his marvelous life portraits of birds he sailed for England on May 17, 1826, feeling that he would find a greater appreciation there. He was splendidly received in the British Isles, and in France, his work was euglogized in Paris by Cuvier. He returned to America in 1829. The ensuing years were spent in this country and abroad bringing out his monumental work, the first volume of which appeared in 1831. The fifth and concluding volume of the "Ornithological Biography" appeared in 1839. "The Birds of America" appeared in 1840. In 1842 he established his home in the upper part of New York city, in the section now known as Audubon Park. In 1846, in collaboration with Rev. John Bachman, whose two daughters had married Audubon's two sons appeared "The Viviparous Quadrupeds of North America."

In 1847 his health began to fail, and he lingered for several years, worn out by his arduous labors, dying at Audubon Park, January 27, 1851, aged 65 years. His body rests in Trinity Cemetery, not far from his former residence, under a handsome monument, which,

however, was not erected until about thirty years ago. His name as a naturalist is secure, and he occupies a lofty and unique position in the ornithological world. His interest in the Passenger Pigeon was very deep, his illustrations of this noble bird being the best extant. In Prof. Herrick's "biography" Vol. 1, facing page 292, appears a truly lifelike sketch of a male pigeon made by the famous bird-lover in the Ohio Valley, on December 11, 1809. It is interesting to note that he calls it "Passenger Pigeon, *Columba migratoria* . . . *appele' ici Wild Pigeon.*" While in Edinburgh in the winter of 1827 he prepared and read a paper entitled "Habits of the Wild Pigeon of America" before the members of a learned society of that city. He began the preparation of the paper and kept at the work during an entire day finishing it at half past three in the morning; so completely said he, was he transported to the woods of America and to the pigeons, that his ears "were as if really filled with the noise of their wings." Evidently the poetry and romance of the pigeons were in his soul, as with every other out-door American who came in contact with them, or learned to know them in his dreams as the result of conversations with the old people. If the spirits of the dead hover in the ether surrounding their final sepulture the soul of Audubon must have been stirred that wild night in the autumn of 1876 when as the result of a heavy storm in the Hudson valley a large flock of those wonderful birds *appele' ici Wild Pigeon* were driven into the Trinity Cemetery, and



STOOL PIGEON BASKET

Constructed and Used by Bernet Ryneerson, Huntersville,
Lycoming County, Pa.

found refuge in the old trees, and on his grave. In the morning the gardeners noticed them, the first time that many of them had ever seen the *species*, though they were sorely bedraggled specimens, heavy of wing and unsteady of foot. The gardeners in sweeping aside the masses of fallen leaves, had to brush some of the jaded birds out of the paths, and when towards evening they suddenly took their flight, winging in a long line across the river a few birds remained on the ground, where they fell victims to the neighboring squatters' cats. Could it have been, in the eternal verity of things, that some spiritual compass drew these storm-tossed and much persecuted birds towards the then unmarked resting place of their friend, who even in far distant Edinburgh, as he wrote of their beauty and mystic life, the history of their majestic flights, felt his ears filled "as if with the sound of their wings," and there found surcease for their sorrows.

Alexander Wilson

On July 6, 1766, at Paisley, Scotland, Alexander Wilson was born. He was apprenticed to a weaver, for whom he worked seven years and amused himself, at the same time, by writing verses. As soon as he was free, with a peddler's pack he travelled to Edinburgh and took part in the literary discussions of that period. He wrote "The Laurel Disputed, a Poem," and "Watty and Meg," a droll poem in Scot-

tish dialect, and became a contributor to "The Bee," lampooning a resident of Paisley; for which he was condemned to a short term in prison, and to burn the libel, with his own hand, at the Paisley cross. Disgusted at this unappreciation of his genius, he sailed from Belfast and landed at New Castle, Delaware, July 14, 1794, with a few borrowed shillings in his pocket, and no acquaintances in the Land of the Free.

At Philadelphia, he found employment with a copper-plate printer, and later, he worked for a weaver; then, as a peddler, he travelled through New Jersey, where the brilliant plumage of the wild birds attracted his attention. Then he returned to Pennsylvania and became a school teacher, for a while, then walked 800 miles to visit his nephew, in New York state, returning to New Jersey, where he taught school, living near the botanic gardens of William Bartram, who encouraged him to study natural history. In October 1804, Wilson set out to make a collection of birds, walking to Niagara Falls, and wrote his poem, "The Foresters."

During 1805, Wilson learned etching from a Mr. Lawson, who had previously taught him to draw; and Wilson was then employed on the American edition of Ree's Cyclopoedia and prevailed upon Mr. Bradford, the publisher, to undertake an American Ornithology. The first volume appeared in 1808, and the second in early months of 1810. Then Wilson travelled down the Ohio river, and overland from Memphis to New Orleans and returned to Nashville, through forests

and mountain trails, collecting material for the third volume, published in 1812. Later he explored New England; and at Haverhill, New Hampshire, he was arrested, as a British spy, a circumstance which probably hastened his death, at Philadelphia, August 23, 1813, when he had completed seven volumes of his work. The eighth and ninth volumes were published after his death by George Ord, the companion of his travels and his labors.—John C. French.

Prince Charles Lucien Bonaparte

On May 24, 1803, at Paris, France, the first son of the Prince of Canino was born, and he was christened, Charles Lucien Jules Laurent Bonaparte, Prince of Canino and Musignano. He had no inclination for political life, preferring the more wholesome pursuits of literature and science. He became a naturalist and a writer on ornithology, continuing Alexander Wilson's "Ornithology of America," in four volumes brought out, from 1828 to 1833, at Philadelphia, where he lived many years. He died on July 29, 1857. So this nephew of the great Napoleon Bonaparte, by residing in America, was enabled to finish the great work that Wilson and Ord had begun and left unfinished, besides other important work, and he stimulated and encouraged Audobon to publish his drawings and notes of America's great bird population.—John C. French.

Charles Darwin, F. R. S., the Great English Naturalist

On February 12, 1809, Charles Darwin was born at Shrewsbury, England, grandson of Erasmus Darwin, M. D., and son of Robert Darwin, F. R. S.—Abraham Lincoln was born on the same day. On December 27, 1831, he sailed away on H. M. Ship *Beagle*, as naturalist, for a survey of South America, returning to England, October 2, 1836, from circumnavigating the earth. His entire life was devoted to scientific researches and writing of his deductions from his observations and from reliable records, made by many other men. Among other works, his "Voyage of a Naturalist" is a beautiful work; his "Journal of Researches into Geology and Natural History of the various Countries visited by H. M. S. *Beagle*;" the "Zoology of the Voyage;" and his "Geological Observations on South America" are of great interest and benefit to us all.

His "Origin of Species;" and "The Descent of Man," contain many deductions, made from breeding various domesticated pigeons, other birds and animals, and are of priceless value to all students who seek understanding along the lines of his discussions. On plants and their powers he left many valuable hints and interesting comments upon their sex characteristics and their principal life-work.

His contention that the various species of plants and animals, instead of having been each specially cre-

ated and immutable, are constantly subject to change, through a process of adaptation, by which those best fitted to survive in changing environments, become the prevailing species, at the expense of other species and varieties—This process of natural selection being so potent and universal that it seems capable, with other less important causes, of explaining how all of the existing species have decended from one or a very few low forms of life—has excited a controversy which seems incapable of being laid to rest; but Darwin's theory has been embraced by many of the ablest naturalists. It has induced great changes in the methods of biology and kindred sciences. His death occurred April 20, 1882.—John C. French.



CHAPTER XXVI.

BIOGRAPHICAL DATA OF OTIS J. P. LYMAN, A PIONEER OF POTTER COUNTY, PENN- SYLVANIA, WITH STORY OF TAKING PIGEONS FOR NEW YORK MARKETS

(By John C. French)

OTIS Jacob Palmer Lyman was born in the township of Roulette, Potter county, Pennsylvania, November 6, 1836, and has resided in that vicinity all his life. He was married, in 1860, to Rosella Sherwood, daughter of Stephen Sherwood of the same place, and raised a large family. He was the eleventh of twelve children born to John Lyman and his wife, Lucretia Palmer. His younger brother, Almeron N. Lyman, served in the Civil war, and died in Virginia, April 16, 1864. In the Lyman family, in the United States, Otis J. P. is of the eighth generation, beginning with Richard Lyman who resided at Charlestown, Mass., 1631-1635, and later at Hartford, Conn. Tracing backward, he was preceded by John, 7; Major Isaac, 6; who came to Potter county in 1804; Benjamin, 5; Isaac, 4; Richard, 3; Richard, 2; Richard, 1; according to the chart prepared by Miss Julia E. Lyman of Hartford, Conn., finished in 1870, after years of patient investigation of family records and traditions.

In the spring of 1861 the Passenger Pigeons nest-

ed on the highlands of Potter county and William Sherwood and Otis Lyman procured a net 12x26 feet to trap the old birds in their daily flights to their feeding grounds to westward. When returning the birds could not be decoyed to alight; but in the early morning they were hungry and the "flyers" and "stool-pigeons" enticed the flocks to come down and investiate, when they were readily caught by springing the net over them as they were settling upon the ground. One hundred birds at each springing of the net was a fair average catch the first morning, at Burtville, Pa., but upon succeeding days the pigeons were shy and only a few could be caught at the same place.

Before daylight Sherwood and Lyman were ready for the work of their first day. They caught a few more than 1,500 pigeons the first day, before 11 o'clock; which they packed with ice in a large wagon bed, and Otis started at once for Olean, New York, the nearest railroad point at that time, where he arrived early the next morning, after an all-night ride of about 32 miles. The birds were repacked in barrels, with ice, and shipped by express to a commission house in New York city, for sale. Mr. Lyman rested a day and returned to Roulette with a wagon load of flour, stopping a night at Rant Larrabee's famous roadside inn of those days, now Larrabee's station on Pennsylvania railroad.

Few more pigeons had been caught by Mr. Sherwood and they abandoned the netting business. For the catch of their first day they received a little over \$100, over and above charges for expressage and com-

mission for selling the birds. That was about 7 cents for each bird. They went to the nesting colonies on Trout Brook, Nelson Creek and Dingman's Run, when the squabs were ready to be caught for the markets, and secured another wagon load of birds for their New York customers. They found about 125 fat young birds in every 100 nests that they took the squabs from that year. Some years the rate would be as high as 150 squabs from 100 nests; and some years less than 105 young birds from 100 nests. None of these colonies were in squares or rectangles. They were irregular, following the bends of the creeks, and upon the hilltops beyond, in hemlock and hardwood trees.



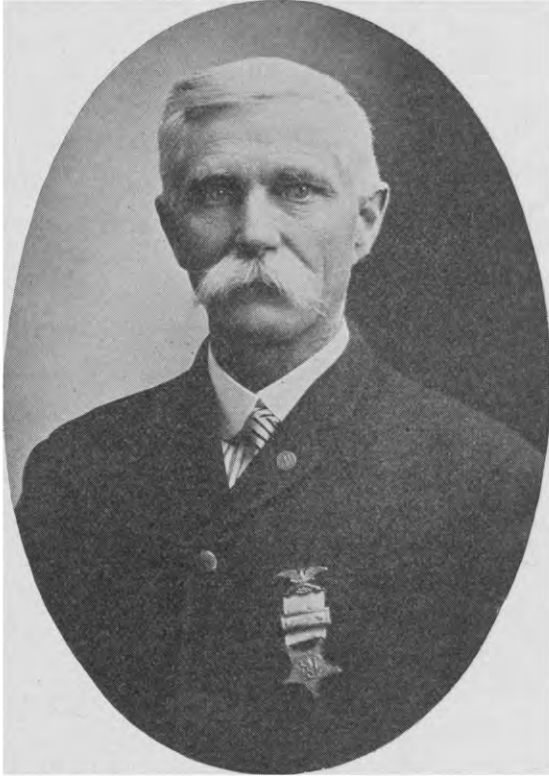
CHAPTER XXVII.

THE PASSENGER PIGEON—ITS LAST PHASE

By HENRY W. SHOEMAKER

MORE than ten years have passed since the writer first came in touch with Prof. C. F. Hodge, of Clark University, Worcester, Mass., the noted naturalist who firmly believed that the Passenger Pigeons were not extinct. The Professor, at his own expense, carried on an expensive publicity campaign for several years, but was unable to produce tangible proofs of the actual existence of the elusive birds. Through the co-operation of leading men, handsome rewards were offered in each of the States in the former range of the pigeons for the discovery of a nest, and the protection of the young birds until they were able to fly and, though hosts of claimants appeared and the genial Professor indulged in sundry "wild goose chases", some as far north as Canada, he found nothing but the nests of flickers, doves and cuckoos. Colonel Theodore Roosevelt had volunteered to help identify nests, but passed on nothing nearer the object of quest than the nests of mourning doves. Early in 1912 Professor Hodge dissolved his committees, abandoned the rewards, and refused to pursue the question further. The writer recollects Prof. Hodge very pleasantly. He was an enthusiast, and at one time his faith in ultimately recovering the pigeons was unbounded. How he became so deeply

interested in the subject is worth recording here. One morning in the Autumn he was working in his garden when he heard a whir of wings not far above his head. Looking up he saw a flock of about thirty wild pigeons winging their way Southward. They flew so low that his identification was positive. Involuntarily he took off his hat and waved it, shouting, "The Passenger Pigeons are not extinct". That was in 1905. He felt, as he expressed it, that he was designated by fate to prove the existence of the birds to the ornithological world. He began by naming committees, soliciting rewards and extending a knowledge of the birds in every locality where they might possibly linger. But all in vain. No wonder he became discouraged after nearly ten years of unrequited work. His faith was not confined to himself alone. Other leading figures in the realm of ornithology have shared his optimism that the Passenger Pigeon still exists and will return when conditions are right. Dr. W. T. Hornaday, great authority on all wild life topics, director of the extensive New York Zoological Garden, and gifted writer, states in his "American Natural History", published in 1903, that in a certain county in Northern Pennsylvania a naturalist fed a flock of three hundred wild pigeons during an entire autumn about 1903, and expected them to return the following year. Charles H. Eldon, premier naturalist of Central Pennsylvania, who mounted, at his studio in Williamsport, a handsome male wild pigeon killed at Linden, Lycoming County,



WILLIAM HAZEN

Born 1842, an Authority on the Passenger Pigeons.

in September, 1890, relates that while in a canoe on the West Branch of the Susquehanna River a few days after the great "June flood" of 1889, inspecting the damage done by the deluge, he saw a flock of thirteen wild pigeons flying westward above the river. Like Prof. Hodge, he took off his hat and jumped to his feet in the boat, shouting, "Wild Pigeons!" About that same year, in the fall, John H. Chatham, discerning nature lover, known as "The Poet Laureate of Central Pennsylvania", while strolling through a wood on his estate at McElhattan, Clinton County, heard a sound in a beech tree, somewhat like a squirrel cracking a nut. Looking up, he saw a handsome male passenger pigeon at work in the mast. The distinguished naturalist seated himself on a log and watched the bird for upwards of twenty minutes. The cock pigeon had evidently become separated from its mate, for it "clucked" a number of times as if to tell her where he was and that food was plenty. At last it rose above the tree tops and flew off in a westerly direction. In the fall of 1882 Captain Harry D. Green, of Reading, a Spanish War hero, Legislator, Congressman, journalist and sportsman, was hunting in Cumberland County. He heard a rustle in some underbrush, and thinking that he had put up a woodcock, he fired at the rising bird. A large male wild pigeon fluttered down at his feet. He put it in the pocket of his hunting jacket, and that evening had it served for supper at the inn where he was stopping. Had he known, he says, that the passenger pigeon was so

near extinction he would have had the specimen mounted. Every one in Central Pennsylvania knows Jake Zimmerman, proprietor of the cozy Zimmerman Hospice, on the mountain top above Milton. Thousands of tourists, fishermen, hunters and motorists have enjoyed the hospitality of this Alpine retreat, pronouncing it one of the most picturesque resorts in the whole of the Pennsylvania highlands. One afternoon, during oats harvest in 1900, Zimmerman was in his field when he saw a single wild pigeon flying above his head in a northwesterly direction. He had not seen a passenger pigeon previous to that for nearly twenty years. "Charlie" Springer, also proprietor of a mountain resort on the Coudersport pike, northwest of Jersey Shore, states that he saw about a dozen wild pigeons in one of his fields in the spring of 1905. These are but a few instances, jotted down at random, showing the recent appearance of the passenger pigeon in Pennsylvania. Is it extinct? Only the mountains, the stag-topped original white pines and the roaring streams can answer, and we do not understand their language as yet. If a sincere doubter wishes to have his wavering belief refreshed let him read "Birds of New York", published at Albany about 1906. No less an authority than John Burroughs is quoted as having seen large flocks of passenger pigeons in the Catskill Mountains in the first few years of the twentieth century. A young male passenger pigeon was killed at Canandaigua, New York, in the fall of 1898. The writer has a young male pigeon, nicely

mounted, in his collection which was taken on the Root River, Minnesota, in August, 1891. The writer, though not belonging to the generations that knew the passenger pigeons, was fortunate enough to have begun his business career in Cincinnati, Ohio, in the fall of 1900. In those days there was a cage full of passenger pigeons at the famed Cincinnati Zoo, and on Sundays, when there was nothing else to do, it was his pleasure and privilege to go there and stand for hours before the cage, drinking in the romance and exaltation that the sight of these noble birds evoked in his spirit. What a joy to be young like in those grand days, with a big world and boundless hopes, now, alas, circumscribed and caged as were the graceful wild pigeons that enthralled his imagination! Perhaps his second most vivid impression of the passenger pigeons was received at Paris in the Natural History Museum of the Jardin Des Plantes. It was a dark, cold afternoon in the fall of 1910, gusts of wind were rapidly defoliating the horse chestnut trees of the boulevards. There was an atmosphere of gloom in the vast museum as he passed from *atelier* to *atelier*, by the noble effigy of the Asiatic lion of the Vale of Gujerat to the brindie wolf, a recent acquisition, from Clermont-Ferrand, by the Quagga from the Orange River, and the Okapi of the Congo jungles—to an obscure alcove looking out on Cuvier's cypress-shaded house. There, in a huge tall case, closely packed together, were many mounted specimens of obscure members of the pigeon tribe, and on the next

to the bottom shelf was a bird with ruddy breast that looked strangely familiar. Sure enough, it bore the label, Pigeon Migrateur (*Columba Migratorius*) *Mise en France*. The writer did not need to visit any other parts of the old museum that afternoon. His spirit was filled with images—of that sad, lone bird, *taken in France*: How it crossed the seas, its story of mystery and romance that stood there untold, never to be told, except in dim chords that beat and throbbed within the soul of the beholder. Perhaps from beloved distant Pennsylvania that pigeon had gone to “find its ultimate islands” by the Somme, the Saone or the Allier, or on the gloomy heights of Puy de Dome. It may have been the sole survivor of those fabled millions which attempted to cross the ocean only to perish during a storm at sea; this one in the end to furnish a *bon coup de fusil* for some *veneur* in France! But if the passenger pigeon is rare today, it was once the most plentiful form of bird life that ever existed in the Keystone State. All the old men will tell you, first of all, that their flights “darkened the sun”. That alone is incredible to the modern person who, if he sees a score of grackles or crows, is amazed “at the plentitude of bird life”. The passenger pigeons were so numerous in their roosts, according to Mr. Chatham, that though one shouted at the top of his voice, he could not make himself heard to a person standing directly in front of him, so loud was the whistling of the myriad birds. Winthrop Sargent, Pennsylvania Railroad official, states that in

the afternoons in the seventies, in company with W. W. Atterbury, now Brigadier General and head of the American Military Railways in France, he used to go up on Wopsononock, the high mountain north of Altoona, to watch the wild pigeons coming back to their roosts. "They made a louder noise than the heaviest freight train", he avers, and from that we can imagine the immensity of their numbers. William Collins, a veteran Pennsylvania Railroad employee at Altoona, has related in a bulletin issued by the railroad, that on a certain occasion in the '70's, the wild pigeons were so numerous in the country between Kane and Sargeant, Pa., that they broke down the railroad telegraph line for a distance of eleven poles by lighting up and flying against the wires. The birds kept the line out of commission for several days. Daniel Ott, the old Snyder County pioneer, who died in 1916, aged 96 years, tells of netting and killing 1,300 wild pigeons in a single day. He killed them by crushing their skulls with his thumbs; he killed so many that his fingers became so sore he had to desist, then he crushed the skulls with his teeth until his teeth became loose. Women came up from neighboring cabins to beg a few birds to fertilize their sweet-pea beds, claiming that the male birds, with their ruby breasts gave a deeper color to the "posies". Here is a case which seems to mean "out of death comes life; out of decay comes beauty". James V. Bennett, leading builder, of Williamsport, in his youth was a famous pigeon trapper. As the birds became scarce

in the east he followed them to Oklahoma. He carried on the business on a large scale, with a number of assistants, supplying the markets of many large cities. He invented a machine to crush the skulls, which did away with much of the cruelty of the earlier and cruder methods. All the old time trappers kept several stool pigeons and "flyers" from fall until spring, and sometimes these birds laid eggs or even bred in captivity. Mr. Chatham goes into details describing the stool pigeons owned by Philip Smith, a noted trapper who resided on the site of the present writer's home in Clinton County, Pennsylvania. The old man provided a roomy pen for the birds, under a big oak tree in his yard, and on several occasions young birds were hatched, but did not grow to maturity. Smith was anxious to tame and train a pair of young pigeons so that they would lure, without cords, stool or eyes sewn shut, the wild birds to the feed or salt beds. Mr. Chatham, then a lad, told him of a nest which, of course, contained two eggs, on a hickory tree in McElhattan Gap, near the present "intake dam". Smith and his youthful protege watched the nest until the young birds were hatched. Mr. Chatham saw and stroked the lively squabs. He is positive that there were two of them, but they flew away before the old trapper was able to go out for them. Mr. Chatham further states that the passenger pigeons nested on the north slope of Mt. Logan, still nearer to Smith's home, and many were the days he watched for them, shot gun in hand, behind an old

stump fence in his father's buckwheat field. It was a wonderful sight, he says, to see them come rolling over the field, the birds behind literally tumbling the ones in front of them over and over. The pigeons flew low, just above the tops of the trees, when passing over a forest, and when flying over cleared fields on hills never varied their altitude, but sometimes almost flew level with the ground. Clemuel R. Woodin, chairman of the vast American Car and Foundry Company, tells of how in his boyhood days, in Columbia County, with his brother-in-law to be, Charles H. Dickerman, he used to wait on the hill-tops during the flights of the pigeons, armed with shingles, and knock the birds down by the hundreds. The writer's father, the late Henry F. Shoemaker, who spent his boyhood days in Schuylkill County, told of his father driving off with a spring wagon during the great flights over the Blue Mountains, and returning in the evening with the wagon box heaped high with dead pigeons. Coleman K. Sober, world-renowned rifle shot, states that passenger pigeons were used at all the live bird shooting matches thirty-five years ago. They were rapid fliers, full of erratic swoops and dives and furnished better sport than the tame pigeons of later days. In the summer of 1890 the writer, as a small boy, was present at many live bird shoots at Hollywood, New Jersey. It was in the hey-day of Edgar Gibbs Murphy, Fred Hoey and Dr. Gideon Lee Knapp. Tame pigeons were used, but they were not altogether satisfactory. Herbert K. Job, author of

many standard works on birds, relates that passenger pigeons were sold in the Boston markets during 1888. Some were sold in the market at Erie, Pennsylvania, the same year. During all these years, when the pigeons were becoming scarcer, many stool pigeons were retained by old-time netters. Just as the hide hunters of the west said of the bison after the last herds were destroyed, "They will return", the pigeon trappers of Pennsylvania firmly believed in their renaissance. The passenger pigeon being a long-lived bird, it was a comparatively easy thing to keep them for an indefinite period. Martha, the last of the wild pigeons at the Cincinnati Zoo, was 29 years old when she died in September, 1914. Several of her comrades were as old, or older, when they died. A resident of Williamsport is authority for the following: A man named Jake Kreamer had ten stool pigeons which he kept in a coop back of his cabin on Loyalsock Creek near Montoursville. The birds had survived the years. The youngest was close to thirty years of age when, on New Year's Eve, 1908, a cat got into the pen and killed all but two. The old man, despairing of the return of the "vanished millions", hastily killed the two survivors and had them mounted. A few months later he learned that if he had kept them alive he could have sold them, at his own price, to the Cincinnati Zoo or to any number of private enthusiasts. There have been rumors, hard to down, that in remote spots in the Pennsylvania wilds, at the present time, or until recently, other stool pigeons have been

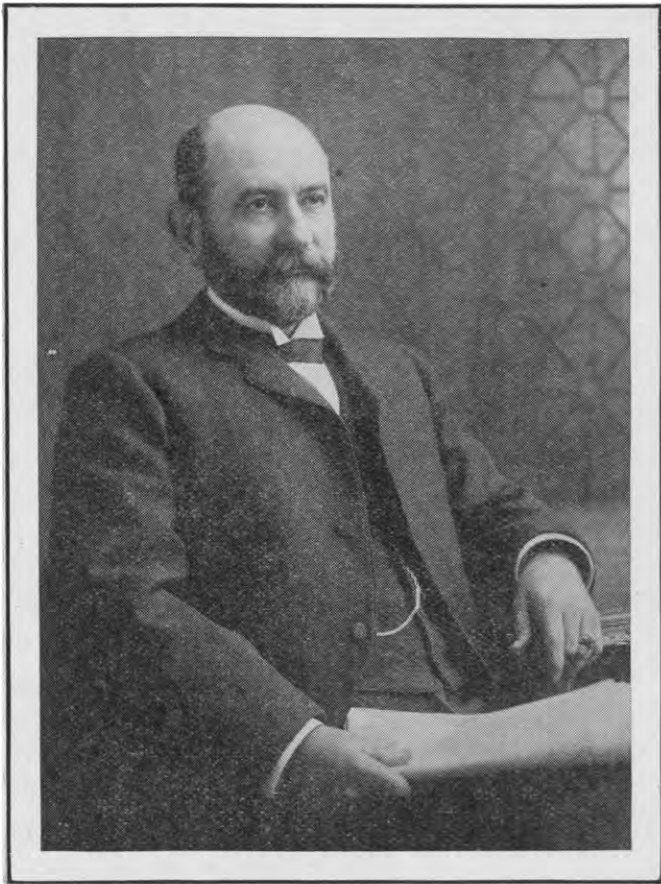
kept. One old man in Brush Valley, Centre County, Abe Royer, by name, did have some until about 1892. A man in the backwoods of McKean County is said to have had some much later than that. In most sections of the Keystone State the flights were not seen after 1881. Seth Nelson Jr., a noted netter of Round Island, Clinton County, says he witnessed the last flight in the fall of 1876. William Wagner, of Antes Fort, Lycoming County, saw the last flight in the fall of 1881. He still has his net, in fairly good condition. The nets were made by hand, usually by traveling net makers, or by the trappers themselves during the winter months. Many of the nets are in existence, also the stools, the baskets in which the stool pigeons were carried to the scene of operation, etc. Charles H. Eldon has several such complete sets which he has secured at various times from old netters in Lycoming County. He presented one outfit to the writer of this article. When unwinding this net, in company with Mr. Chatham, so that it could be displayed to advantage, a solitary feather was found, clinging to the yellowed cords. All that was left of the probable thousands of birds that the net had contained, only a single feather, yet more tangible than all the words that have been spoken or written concerning these wonderful vanished wonderers. *Pigeon Migrateur*, as the French call them, they have strayed across the seas, into the lands of romance, perhaps even to that "bourne from which no traveler ever returns", but we have a feather to prove to those

who have never seen them that they were here—and, as the old men say, “they darkened the sun”. One dark afternoon when the writer was traveling homeward on “501,” an old man with keen eyes, an eagle’s nose and a long white beard, got into the train at Liverpool, Dauphin County, the thought arose, “He has seen the pigeons fly.” How he wished that he might become acquainted with such a man, for he had lived in the golden age of Pennsylvania, to paraphrase the Ancient Bard who “sang of wolves, and roes, and elks”, in days of flat topped bronze barked original white pines, of panthers, of wolves, of wild pigeons—yes, *wild pigeons*, whose flights literally darkened the sun. Oh God eternal, to have lived in such days, before man conquered nature in “Penn’s Woods” and turned it from a Sylvan Paradise to a smoky, manufacturing Commonwealth. Today, on the horizon, the smoke of her factories and mills literally darkens the sun. Will the pigeon cloud ever return, that purple mass, flying low in precise battalions, headed for death and destruction? And to look at those calm old men, eagle visaged and bearded, and to think what they have seen, of the obstacles that they have been through, is but to feel that one is, in the words of William Morris, “An idle singer of an empty day.”

Despite the prodigality of their nesting operations, there is as far as known, not a single Passenger Pigeon’s nest in any collection today. Dr. B. H. Warren, the brilliant author of “Birds of Pennsylvania”.

thinks that he once saw a nest in a collection some years ago. There are a fair number of eggs, which change hands at \$50 per egg. Mounted specimens are also rare, but that is accounted for by the fact that when these birds were as common as are our English sparrows today, few wanted them in their collections, preferring *rarities*. Mounted birds sell at \$50 per specimen, though in some cases, as much as \$150 has been refused for especially fine male examples. Strangely enough, adult male specimens, showing the rosy breast at its best, are much rarer than female, and young male and young female specimens. Added to the horrors of squab hunting and killing were orgies of drunkenness that made the scenes in the nesting grounds hideous to recount. Ben. Holcomb, of Hickory Valley, Warren County, tells that when the pigeons nested on Bobb's Creek near there up to about 1885, a certain shrewd individual always appeared at the nesting grounds with a barrel of hard cider which he sold to the squab hunters at five cents per tin-cup. Whenever a tree was felled which contained an unusually large number of squabs, the Indian hunters from the Reservation would cheer and dance about like wild men. Whole families of whites and Indians drove to Bobb's Creek when the pigeons began their nestings, camping in the woods and pickling and barrelling tons of squabs. Adolphe Shurr, formerly a woodsman in Clinton County, states that there was a small nesting

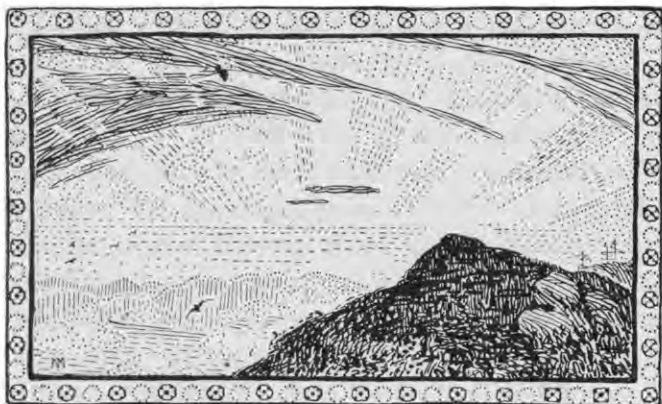
of pigeons in the big hemlocks at the head of Young Woman's Creek, that county, when he peeled bark there in the spring of 1892. Jonathan Auman, born February 17, 1833, "the Sage of Minnick's Gap", in Brush Valley, relates that in the fifties when in Illinois he stopped one night with an aged couple who resided in a great beech wood. The old lady wishing to please the guest told him that she would give him something "extra fine" for supper. Carrying the "tallow dip", the young man accompanied the dame to the attic, where on cords hung hundreds and hundreds of jerked wild pigeons' breasts. These made a delicious *piece de resistance*, being served and eaten like the bultong of the South African *Veldt*. Dr. B. S. Barton in his "miscellanies" where he so vividly described the vast flight of Carolina paroquets in a snowstorm, which so frightened the superstitious Dutch settlers in the Mohawk Valley, New York, in the winter of 1780, tells of a mild winter in 1797, when passenger pigeons remained about Philadelphia as late as February. There was much sickness that winter, though the great scientist does not intimate that they were birds of ill omen. Mr. Hench, of Altoona, states that when a boy in Perry County, he saw many flocks of wild pigeons in wheat planting season and saw their depredations of the wheat fields. He tells of millions of pigeons roosting on the Allegheny mountain, between Cambria and Somerset counties as late as March first, 1875 or 1876.



DR. W. T. HORNADAY, Sc. D.

Newspapers told of a flock of wild pigeons having been seen in Delaware County in January, 1917. When in the Shenandoah Valley, in the late fall of 1910, a livery stable driver at New Market, about 50 years of age, told the writer that he had killed two wild pigeons in the Masnuttan Mountains, back of the Endless Caverns, in the winter of 1905. He was sure that they were Passenger Pigeons, as he had helped to trap many of them in his boyhood days. Unfortunately few of the younger generations know what a Passenger Pigeon looked like, and this was brought out to Prof. Hodge's chagrin many times during his investigations. The old men are always to be depended upon, they knew the birds intimately, they cannot err, and it should be noted that very few greybeards claim to have seen them in recent years. We must admit that those elderly men like C. W. Dickinson, who say that they have seen them of late, have a most excellent case. There is still ground for belief that they exist, though the most careful investigation can at most leave the case open, as in the instances of the flocks seen by Mr. Snook in eastern Brush Valley, a couple of years ago. With no positive proof *against* we can content ourselves with a goodly portion of *hope*, and a *faith* that *Ectopistes Migratorius*, or as some of the netters in Michigan called them "Traveling Pigeons" must return from their long journey. They were in such great numbers when they went

away the last time, some must be left. If they come back they will find themselves safeguarded by protective laws, a more enlightened public sentiment, and a thoroughly aroused interest in their life's history. By the methods of selection used by fanciers in evolving new varieties of domestic pigeons typical "wild pigeons" might be produced, to the benefit of the world, and the infinite joy of the aviarist. What bird lover will try this experiment?



CHAPTER XXVIII.

LAST SURVIVOR OF WILD PIGEONS DEAD

Martha, Captive in Cincinnati Zoo, Survived Loss of Mate Just Four Years—Lived to Be 29 Years Old

NEW YORK, SEPTEMBER 13, 1914.

NEWs of the death in Cincinnati of Martha, the last wild pigeon in the world, according to all ornithological records, was conveyed yesterday to T. Gilbert Pearson, general executive officer of the National Audubon Societies, in a telegram from Eugene Swope, the Ohio agent of the Societies at Cincinnati. The death of Martha, according to Mr. Pearson, is a calamity of as great importance in the eyes of naturalists as the death of a kaiser to Germans throughout the world.

Martha had been in poor health for several years in her cage at the Zoological Garden in Cincinnati. Many efforts had been made to find a mate for her, or to discover some other specimen of the wild pigeon, but they were without avail. According to all ornithological data available, Martha was the last of her tribe in the world.

(She died at 2 p. m., August 29, 1914.)

Members of the National Audubon Societies some time ago offered a prize of \$1,500 to any one who could find a wild pigeon nest. All that was necessary

was to find the nest, telegraph to C. F. Hodge, a naturalist of Clark University, and to await the findings of ornithologists whom he would immediately despatch to the scene to investigate the genuineness of the find. The Audubon Societies received on an average 100 false alarms a year, but in not a single case was the nest reported found to be a wild pigeon's. Instead, almost every nest was found to be that of an ordinary turtle dove. The wild pigeon resembles the ordinary wild dove but is considerably larger.

The extinction of the wild pigeon tribe was the more amazing because of the vast extent to which it had flourished in this country prior to 1865. Wild passenger pigeons used to travel over the country by millions. Audubon himself told of their roosting in certain parts of Kentucky in territory covering a space of three to five miles wide and forty miles long, which was almost literally hidden by them. Hundreds of farmers, he tells, used to camp on the outside of the vast roosting pigeon host and shoot them by the thousands from the edge of their resting place. The birds were fed by thousands to the farmers' hogs after each night's killing.

The slaughter raged for years with nets, traps and guns, and by 1884 there were very few of the wild pigeons seen in the country. Several years ago they had dwindled down to a few specimens left in captivity in Milwaukee and in the Cincinnati Zoo. Martha's mate died about four years ago, and though a prize of \$1,000 was offered for any one who could

find another bird to take its place, Martha remained in solitary widowhood until she died.

Martha herself was hatched in captivity in the Cincinnati Zoo. At the time of her death she was 29 years old. Her last illness had been a matter of concern to ornithologists the world over, and the Cincinnati agent of the Audubon Societies had been instructed to communicate at once with leading ornithologists and naturalists of the country as soon as she died.—Altoona Tribune.

List of Mounted Passenger Pigeons, at Academy of Natural Sciences (Third Floor), Logan Square, Philadelphia.

No. 49,899, fine mature male, from Dr. Charles Shaeffer.

No. 24,291, young male.

No. 24,292, young male, (fine specimen), gift of Dr. T. B. Wilson.

No. 13,301, mature female.

No. 13,299, young female, gift of Dr. T. B. Wilson.

Emerson Hough on the Wild Pigeons

Captain Emerson Hough, the noted authority on western life, in a recent conversation with the writer, stated that the last Passenger Pigeon which he saw was killed by a retired railroad conductor, in Wisconsin, the first week in September, 1897. The conductor

while journeying along a railway cut, saw a large bird perched on a tree among a band of mourning doves. He killed the bird, and showed it, a couple of hours afterwards, to Captain Hough and a friend. This incident the Captain says, is fully described in Mershon's great book on "The Passenger Pigeons," published in 1907. When Captain Hough was a young man in Iowa, in the Seventies, he recalls often seeing flocks of several hundred Passenger Pigeons migrating in the spring and fall. Sometimes they would alight on the feeding beds provided for cattle, even in feed troughs, where they were potted by the farmer boys with their old-fashioned shot guns.—H. W. S., Nov. 6, 1918.

H. H. Gallup, McKean County Man, Hears Wild Pigeon

H. H. Gallup, of Betula, McKean County, writes as follows: "I thought I heard a cock pigeon crow two years ago last Spring while in the sugar bush, but C. W. Dickinson thinks differently, and as I never heard it again, no doubt I was mistaken. I have seen the fields so covered with birds that you could not see the ground, and when they are feeding, they seem to roll over one another, the rear to the front, in countless thousands, a sight that the present and future generations can never realize—for they are gone forever." (1918.)

A Postscript.

John C. French in a letter to H. W. Shoemaker on the dates of the appearance and departure of the Passenger Pigeons in Northern Pennsylvania, says:

I never saw one, here, later than October, nor earlier than May, when they were so plenty that farm crops of grain were sometimes destroyed in a few hours. Three miles east from my farm they nested, some years (not every year) prior to 1874, and went daily to feeding grounds in McKean and Forest Counties (hens one day and cocks the next), going over my farm flying low in the morning, returning at night, flying high. The whole valley would be filled, from north hills to the south hills, more than a mile, with strata above strata of pigeons, sometimes eight courses deep and for an hour of a morning, or more, they flowed westward, a mile a minute, with a roar of wings like a tornado and the deep shadow of a heavy thunder shower. Their nests were in a little hollow where hemlock trees stood thickest and usually covered about twenty acres, say 800 to 1,000 trees, nests on every limb, except ten or twelve feet at the treetops; and were regular in outside borders, even leaving one-half the limbs of an occupied tree, outside of the 'city' and one-half inside of it with nests on all limbs inside the 'city' boundaries and no nests on limbs outside of the boundaries. The 'city' was in form of a parallelogram, say approximately forty rods by eight rods. I saw another 'city' in the

head hollow of Sugar Run, McKean County that was about square and smaller, about thirty rods by thirty rods, but the trees were much thicker and larger, giving nest room for nearly as many. I never saw a round 'city' nor heard of any. As shooting is more controlled, I expect to see the Passenger Pigeon return in summer, despite the claim of being extinct since 1890, or so. In 1901, I saw a pair in June, on Grant's Run, near Grantonia post office in Elk county; in 1904, Mr. J. W. Cunningham, a revenue officer, saw a small flock near the Big Sandy river in Kentucky. In 1906, William Hazen and his son, saw five pigeons several times feeding on their buckwheat field in August, here in Roulette. Now there is room for a doubt, but all of these men knew the wild pigeon well and believe they saw them. I am also certain of the pair that I saw in 1901. They lit in a juniper tree within six rods of where I sat upon a log with my wife, to whom I pointed them out and discussed the peculiarly red-tinted breast of the cock and the modest grey suit of his mate; also remarking to Mrs. French that they were not extinct then, as we had heard so often for the previous decade. An old time Wisconsin timber cruiser who knew wild pigeons well thirty-five years ago or more, was looking over some pine timber (Araucarian) in Chili in 1912 and reported that he saw millions of the genuine old time Passenger Pigeons far within the Andean solitudes.

Faye H. Rohart, a noted historical writer of Mc-

Kean County, in a recent widely published article on the wild game of his home locality, has this to say concerning the Passenger Pigeons :

PIGEONS.

The extermination of the wild pigeons which came to this section every spring, from April to June, in countless numbers, is one of the things the present generation has to mourn.

They came in great flights that shut off the sunlight, like a dark cloud, while they were passing. They were about the size of a tame dove, but a neater bird. Their color was a light slate, with beautifully silver tinged band around the neck.

Many of the older residents recall the time when pigeons nested throughout this vicinity. T. L. Sartwell recalls a time when he was a boy when pigeons nested on Potato Creek at Smethport.

The cocks or male pigeons would fly first from about seven to nine in the morning and the hens or female birds would fly from nine to eleven. The valley and hillside would be literally blue in color from the countless numbers. A good beech nut year, always meant a good pigeon year.

When they nested every tree and limb of the forest would be weighed down. At such a time men from all parts of the country, hearing of the nesting, would gather to get the squabs or young pigeons that had not yet learned to fly. In order to get them the hunters would cut down the trees in which they roosted and

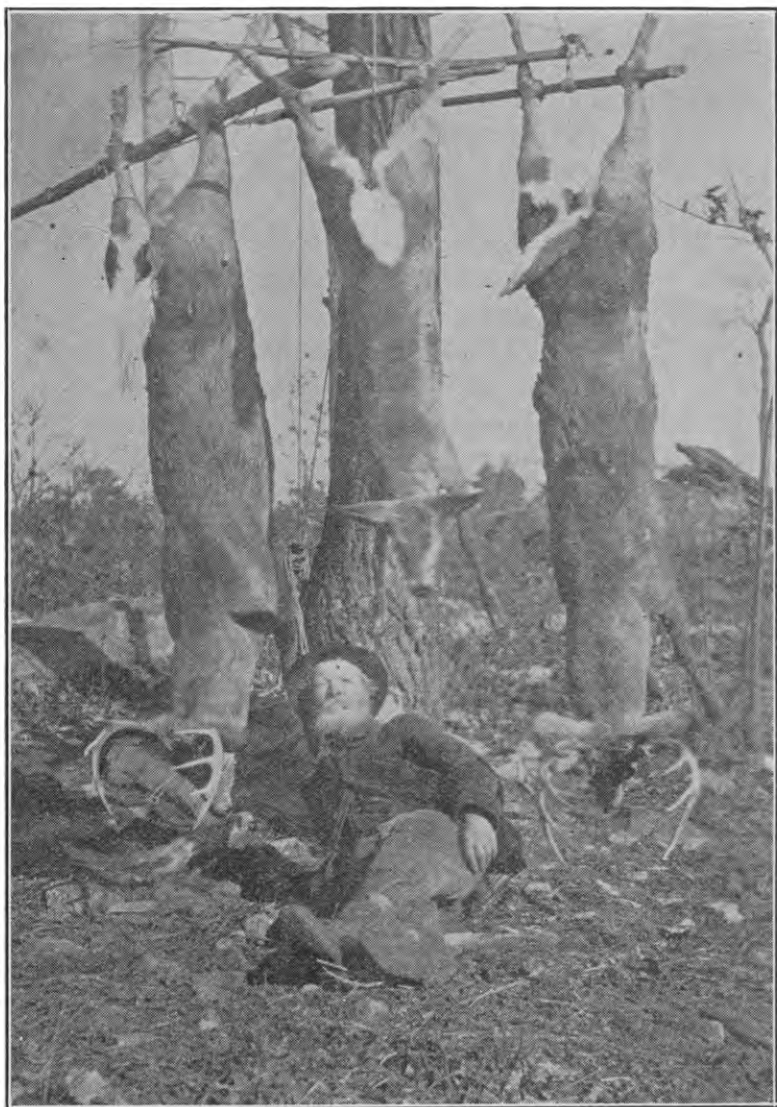
take them by the hundreds. In 1868, a famous nesting occurred on Bell's Run.

A. Reilly, of Smethport, in speaking of them says in part: "At one time the nesting was ten miles long and five miles wide, with every tree and limb of the forest being covered. Many made a business of catching them, and on Potato Creek, there were placed nets about every one hundred yards apart for fifteen miles. Each net captured from ten to one hundred dozen a day. I have shipped from twenty to thirty barrels a day, each barrel holding twenty-five dozen and selling from twenty-five to fifty cents a dozen, but discontinued when the market became glutted."

In the Spring of 1842 Stephen Sickles, of Smethport, caught thousands of them, but as there was no market at that time, hired himself and his net to his neighbors for \$2 a day, and captured in a single day from 500 to 2,000 pigeons.

In this immediate vicinity, C. M. Slack tells of netting them with E. S. Carpenter on the flats where the refinery is now located. At one time there was a large nesting up at Windfall.

A. N. McFall described a nesting made at Mt. Alton and they picked them. He says that after a successful day with the nets, a trough would be built around the four sides of a good room and into this the dead pigeons would be dumped. Women would be hired to pick them, taking the feathers for use in making feather beds.



SETH NELSON, JR.

From lengthy descriptions given by T. L. Sartwell, C. M. Slack and A. N. McFall, the following is obtained as to the process of netting them.

The nets varied in size from twelve to twenty feet in length and were from three to six feet or more in width. One side of the net would be staked along its entire length to the ground and thru the other side which was free, was run what was called the net string, which was fastened on each end to the spring poles by which the net was sprung. The spring poles were of hemlock and fastened to the net springs, doubled back to give force by which the net was spread and were a number of feet from the net. The net would be tucked carefully on the ground along the staked side and so arranged that when it was released it would fly out and spread itself over the ground or bed on which the pigeons on being attracted would alight. The bed was previously prepared by strewing buckwheat or corn over the ground. The net would be sprung so quickly that the pigeons would have no chance of rising and it settled down over them.

The net would be worked from what was known as the bough house, built near by to screen the nets from observation. From this shelter were worked the pigeon stool and the fliers.

The pigeon stool was a live pigeon used as a decoy and securely fastened to straight poles that were fixed in such a manner they could be raised three or four feet from the ground and then lowered to the ground with the pigeons on the end. In so doing, the

pigeon would flap its wings as if settling to the ground in a natural way. The pigeon stool would be placed just outside of the area to be covered by the net so as to be caught when the net was released.

There were also live pigeons that had a long string attached to their legs. The fliers were sent up into the air and then pulled in again. These decoys would attract a flock of pigeons flying near and it would settle on the bed and the net would be released. Very few pigeons ever got away as the men would rush out from the bough house as soon as the net had been released, and get onto the net on their hands and knees and bite the heads off as the pigeons protruded them thru the opening in the net. The ground would be cleared and everything again fixed for the next flock that came along which would not be very long in coming.

Sometimes a double net was worked, which consisted of two nets released towards each other, thus doubling the catch.

The last of the pigeons came about the year 1880, altho the real big flights were made fifty years ago. The cutting out of the beech trees, as well as the destructive methods used in capturing them, had much to do with their total disappearance.

CHAPTER XXIX.

**WHAT EXTERMINATED
THE PASSENGER PIGEON**

**The True Story, Related by One of the Most Famous
Pigeon Trappers in America—C. W. Dickinson**

(From the Altoona Tribune)

FIRST, we wish to state that there is only a small percentage of the American people of today that can imagine what an immense body of pigeons there would be in a large pigeon nesting. Take, for instance, the nesting or pigeon city we had in McKean and Potter Counties in Pennsylvania, in 1870, which was the largest in this locality since 1830. This nesting was from one half mile to two miles wide and about forty miles long, running through an unbroken forest. The direction of this line was nearly east and west, but a zig-zag line to keep near the main range of mountains that divides the waters of the Allegheny and Susquehanna rivers. Both male and female birds help to build the nest which is a very crude affair and, as a rule, there is only one egg in each nest; perhaps one nest in fifty or one hundred will have two eggs in it. As soon as the eggs are laid, the hen birds sit on the nests over night, while the toms roost in the nesting or the adjoining territory. Now the birds are

divided, the males by themselves, and the females go by themselves, when going out in search of food.

Four-fifths of the birds will fly out in a certain direction from the nesting to feed, some of them going as far as sixty or seventy miles. The toms establish the line of flight from the nesting. They will begin to fly out very early in the morning. As soon as there is any signs of gray in the east, they fly out in immense flocks. Sometimes it could be called a continuous flock, as far as the human eye could see there was a bird in all directions, all going in the same direction for twenty or thirty minutes. After the main body had passed, then would come flocks of from eight or ten dozen up to one hundred dozen. This will continue until about 9 a. m., when the toms will begin to return to the nesting to take the place of the hens on the nests, while the hens go in search of food. They follow the same line of flight and return to the nesting about 1 p. m., take their place on the nest again while the toms will make a shorter fly out in the afternoon, returning about half past four and, if the weather is not too rough, the hens will make a short fly out, returning in time to take their place on the nests over night. It takes about fourteen days for the eggs to hatch and in about fifteen days from hatching the young birds are left to their own fate. At this time the young birds are fed all their craw can hold and they are so fat they can't fly very much for three or four days. As soon as they get the use of their wings, they know where to go, for they will

follow the same line of flight the old birds took a week before. The old birds will not feed in the nesting or near the border of it. This food is left for the young birds to live on while they are getting the use of their wings. The young birds are great feeders from the time of hatching until the old birds leave them. The first twelve days of a young pigeon's life, he feeds exclusively on curd that forms in the craw in a thin sack that adheres to the inner part of the craw, filling one-third the craw proper. This curd forms in the craw of the males as well as the females. When feeding their young the old birds will draw their head and neck down close to their body, open their mouth wide, then the young bird will stick his beak down the old bird's throat and eat the curd out of the old bird's craw. This curd does not mix with the old bird's food as it is in a container by itself, which gives way after about twelve or thirteen days; after this the young birds will get beechnuts or seeds from other trees or shrubs, mixed with the curd.

Pigeons never nested in Pennsylvania, only in the spring of the year, following a season when there was a good crop of beechnuts. Under no other conditions could such a body of birds possibly live for a period long enough to raise their young which takes about thirty-one days. Take the pigeon nesting in 1870, for instance. The daily flight was in a northerly direction from the nesting and eight miles from the nesting it would be one continual flock of birds as far as you could see east, west, north or south for

twenty to thirty minutes. Then it would be more broken so at any time from 5 to 8 p. m. you could see from ten to forty flocks at a time.

People who never saw a flight of birds from a nesting, can't believe there were ever so many birds in one locality. The writer's home was near the locality where these birds nested. From one-half mile to four miles we would hit eight or ten different nestings, also have been in six or eight that were farther away. We have tried not to enlarge this in any manner for no one knows what a pigeon nesting is until they have actually been in one. The birds build their nests in every tree that is standing on the territory the nesting covers. The larger the top of the tree, the more nests there will be in that tree. We once counted fifty-seven nests in the top of a large birch tree. Undoubtedly there are three times as many nests in a hemlock tree as there are in a hardwood tree. In the hemlock there are so many more chances for the birds to build nests, while the hemlock boughs are so thick it would be impossible to count the nests.

You will ask whatever became of these birds if they were so plentiful. There were millions of them caught with nets and sent to the large cities. Still there were millions of them here on their old nesting ground in Pennsylvania, in 1886, which was the last large body of birds that ever visited this state. A few small flocks have passed through this locality since that date. The writer saw a small flock of about 100 birds in September, 1905, and saw a lone

pigeon in August, 1906. The large body of birds that came here in April, 1886, came here for the express purpose of nesting. The crop of beechnuts the fall before was very large. That was what brought them here. When food was real plenty the birds have been known to nest three times in a single season. The first ones would begin their nesting in the latter part of March. They would nest again in the first part of May, and No. 3 nesting would start about June 10th.

When the pigeons came here to nest, they would be scattered over three or four Counties and roost anywhere night overtook them. But for a night or two before they began building their nests nearly all of them would roost in one large body. From this place their nesting would start, but what direction it would go, no one knew, until they commenced building. Another sure sign of its being about time for the birds to begin nesting is the fine little white strings that come from the forward end of the breast and connects with the craw. It certainly looks as if these small threads were the natural feeders that form the curd in the craw for the young to feed on.

In 1886 these two sure signs were in evidence. The fine white little strings had been visible for three days. And it was the second night of the big roosting on the west branch of Pine Creek in Potter County, that these birds were driven out of this state, never more to return. On the second night of the roosting, thirty or forty men and boys from the settlements along Pine Creek, went into this roosting with guns

and a back load of ammunition and a few edibles for a lunch or two. At 9 p. m. they began shooting into the treetops anywhere and everywhere, scattering out in every direction and shooting into the treetops as long as they could hear a bird fly. Then they gathered into small groups, made camp fires and waited for daylight, so they could find the dead and crippled birds.

This was the death blow to pigeons in Pennsylvania. Which way or where they went no one knows for they left Pennsylvania in the night. The night was clear with a full moon, so the birds could see fairly well which way they wanted to go. It is safe to presume they followed the same course they always took when leaving this state in the spring or early summer. They would go in a northerly direction, cross the state of New York and go up into the big forests of Canada. Their being driven out here in the night and on the eve of starting a nesting suggests that before they reached their destination in Canada or before they had a chance to select a place for a nesting, the hens dropped their eggs. Therefore, there were no young birds to eat the curd which had already started to form and would keep on forming until the laws of nature had completed her work. Now, if there were no young birds to keep this curd eaten out, it would fill the craw so full the old birds would either starve to death or such a large amount of curd in the craw would cause something like milk fever, which would be fatal to every bird that belonged to the body of birds that were about to nest. There were always

quite a few stray birds with a nesting body, either too young to nest, or lost birds that had been scattered around the country and just happened to find the main body and, of course, these strays or young birds, would not have any curd in their craws. So we can't believe that the Passenger Pigeon has become extinct. But they will never nest in Pennsylvania again for there is not forests enough left for hawks to nest in, so say nothing about a body of pigeons.

C. W. DICKINSON,

Jan. 25, 1917.

Smethport, Pa.

Correct Scientific Name.

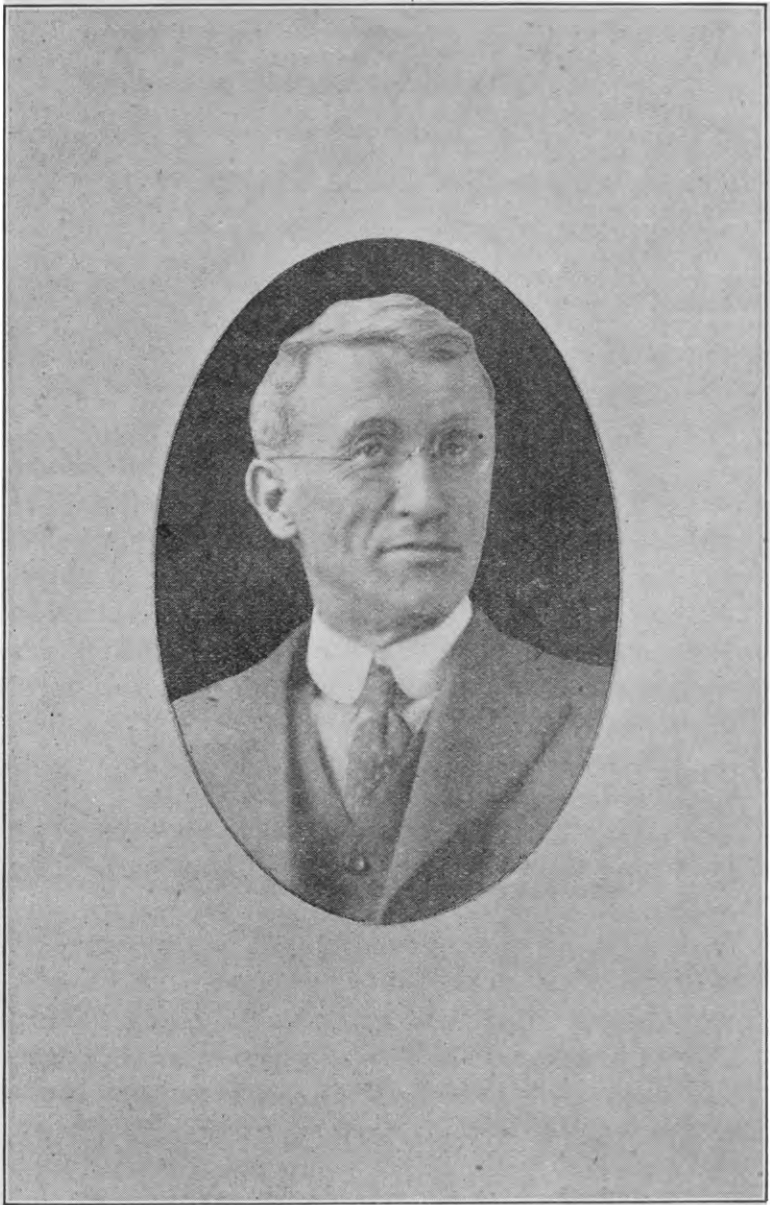
(From "Science," Nov. 1, 1918.)

The technical name of the Passenger Pigeon has for many years been *Ectopistes migratorius* (Linnaeus) (*Columba migratoria* Linnaeus, "Syst. Nat.," Ed. 12, I., 1766, P. 285). There is, however, another name *Columba canadensis* Linnaeus ("Syst. Nat.," Ed. 12, I., 1766, P. 284), based on the *Turtur canadensis* of Brisson ("Ornith.," I., 1760, P. 118), that needs consideration. Reference to Brisson shows conclusively that his detailed description is that of the female Passenger Pigeon, as he mentions particularly the rufescent tail-spots. Both *Columba canadensis* Linnaeus and *Columba migratoria* Linnaeus are of equal pertinence, and there seems to be no reason for the rejection of the former, since both the Interna-

tional and the American Ornithologists' Union provide definitely for the enforcement of the principle of anteriority (page precedence) in such cases. We should, therefore, hereafter call the Passenger Pigeon *Ectopistes canadensis* (Linnaeus).

HARRY C. OBERHOLSER.

In the same issue of "Science" John M. Clarke, Director of the New York State Museum, transmits a letter from M. Rasmussen, of Amsterdam, N. Y., who claims to have seen a flock of about thirty wild pigeons in a buckwheat field on October 1, 1918. He is sure of his identification apart from seeing the flock, "by the whistling sound of their wings," having seen wild pigeons "near Ithaca, about twenty years ago." Captain Emerson Hough, in commenting on the above statement, says that a mourning dove's wings "whistle the same as a wild pigeon's, also that no one can remember a peculiar sound exactly after twenty years, and even tame pigeons have an audible whistle to their wings when in flight." He adds that doves, "when seen at a distance invariably look large, and it is incredible that if the flocks of pigeons which are reported as being seen somewhere every year, do not increase, and become plentiful again." H. W. S.



SAMUEL N. RHOADS

CHARLES H. ELDON,

TAXIDERMIST,

331 W. Fourth Street, Williamsport, Pa.

WILLIAMSPORT, PA., JAN. 16, 1919.

COL. HENRY W. SHOEMAKER,

Washington, D. C.

DEAR COL. SHOEMAKER:

Replying to your inquiry concerning my early knowledge of the passenger pigeon, I wish to say: In my boyhood days I lived in Bendersville, Pa., ten miles north of Gettysburg. Near our village was timber land, locally known as the "Big Hill," which was a favorite nesting place for the passenger pigeon. The coming of the birds in the spring-time was heralded with delight by hunters. I have been on the mountain with my father and have seen the birds in vast numbers, the trees being so completely covered that the birds to my boyish eyes appeared as massive leaves. In memory I can still see them fluttering and lighting upon the swaying branches, and here and there through the timber could be distinctly heard the breaking of the limbs from the weight of the birds. The fluttering of the wings and the cooing of the birds seemed like almost a continuous roar. I remember seeing a stream of pigeons about twice the width of a street and reaching as far as the eye could see in both directions. Becoming tired looking at the birds as they were passing directly over me, I lay upon the

ground and watched this seemingly endless stream for a long time. Finally the end came abruptly, and I watched the birds way into the distance until they were lost to view. They were traveling northwest. Looking again in the southern direction, I saw the grandest sight that I ever witnessed in the flight of birds. A flock in cloud formation and apparently of countless number, swept along in majestic flight. They were clearly outlined against a gray sky, and as they passed over me flying low, I could distinctly hear the surf-like swish of their wings.

In 1868 I came to this city and have always been greatly interested in the passenger pigeon, and have endeavored through the successive years to obtain all information I could concerning their life habits and their final disappearance. The mountains north of our city for many miles were favorite nesting places of the wild pigeon, where they were trapped in great quantities, most of which were sold on our curb-stone markets, they being brought in frequently by wagon loads. A family living on the headwaters of Rock Run, which empties into Lycoming Creek at Ralston, Pa., made a barrel of soap fat from squabs, so plentiful were they in that section. From the nesting grounds at Kane, Pa., from three to twelve tons of pigeons were sent daily to Baltimore, Philadelphia and New York markets. Men in lumber camps and families living in the mountains, whose principal diet during the winter was salted, smoked or pickled meats, re-

garded the coming of the wild pigeons as a God-send, for then they would have a supply of fresh meat.

In the early part of June, 1889, I was hunting for migrating birds at the base of the mountain along the bank of the river, about three miles west of this city, and to my surprise I heard the familiar swish of the passenger pigeon wings. I involuntarily jumped around and yelled "Wild pigeons!" Then I saw thirteen pigeons rapidly flying along the edge of the timber, going westward. This was the last flight of pigeons that I saw.

I cannot help but feel, from information that I have gathered at sundry times, that the sudden disappearance of the wild pigeon was not caused by men, guns and nets. When Mr. James V. Bennett, pigeoneer, quit netting pigeons in the Indian Territory, they were still abundant. Two years later they were practically all gone. The hand of man could not have destroyed them so completely in so short a space of time.

Mr. Isaac Henninger, of this city, was also a pigeoneer, and remembers very distinctly when the birds disappeared, of reading at the time of their disappearance, accounts in the Philadelphia or New York papers of vessels that were crossing the ocean and plowing through millions of dead pigeons.

Mr. Daniel Harrer, Sr., of Roaring Branch, told me that when the pigeons disappeared an old friend of his was on a slow-sailing vessel coming to America, and that for days he saw dead pigeons floating on the water. The birds possibly were migrating in search

of food, as their natural feeding grounds were being stripped of food bearing trees, or were possibly in a dense fog and lost their direction of flight, or were driven over the ocean by a storm and, after aimlessly circling around, the weaker finally settled upon the water, and the balance of the flock, thinking they had discovered ground, alighted upon those that had already settled, and hence were drowned. When pigeons light upon the ground in vast numbers they are constantly in motion, as though jumping over each other, and in appearance like waves.

Mr. James V. Bennett, a veteran pigeoneer, informs me that he remembers distinctly at the time of the disappearance of the passenger pigeon of reading accounts in different papers that the birds had gotten into a dense fog while migrating, lost their direction of flight and strayed out over the ocean and alighted in such vast numbers on vessels that the passengers, fearing for their own safety, were compelled to club the birds off the vessels. The accounts also stated that the dead pigeons were washed upon the shore in such quantity that they were from one to two feet deep in places.

I feel that Mr. Bennett can give more facts concerning the birds than any person with whom I am acquainted, as from boyhood he has been familiar with the habits of the birds, and from repeated conversations that I have had with him concerning the wild pigeon, I have gathered the following information which is not generally known :

How the Marsh Beds Were Prepared to Attract the Birds.

The ground was spaded and raked over as in the making of a garden, then a quantity of salt was scattered over and whipped into the earth with a brush until it was thoroughly mixed. The pigeons would eat this "muck" with a relish. This mixture doubtless aided the birds to digest their rich diet, which consisted in the main of beech nuts and Black Jack acorns. The salt was applied about every other day in small quantities to freshen the "muck bed." By break of day the nets were set and the pigeon stool placed at the edge of the "muck bed" and the stool pigeon fastened by the feet on the pad at the end of the arm of the stool, and attached thereto was a rope leading to the bough house in which the netters were concealed. The bough house was built of either hemlock, spruce or white pine of sufficient size to admit of two persons to move about easily and not be noticed by the flight of pigeons. At times the flocks were so large that they fairly darkened the sky, cloud-like. In order to attract the attention of the flock, four to six long-line fliers or decoys were put out, when the flock would suddenly break in the centre, funnel-like; then the netters in the bough house would by means of the rope slowly raise the arm of the stool upon which the stool or decoy pigeon was fastened, then lower it quickly, thus causing the bird to spread its wings as if in the act of alighting on the "muck bed." The birds would come streaming down, and there would be seemingly in extent an acre or two of

pigeons on the ground. The net was then sprung and thrown over the birds on the "muck bed." The pigeoneers in the bough house would rush out, and if the lead weights on the guy ropes were not sufficiently heavy to hold the net down and thus prevent the pigeons from escaping, poles were laid on the edges of the net or the net held down by the pigeoneers. The birds were killed by crushing their heads or breaking their necks between the thumb and fingers. When this process tired the fingers, the heads of the birds were then crushed between flat stones held in each hand. Mr. Bennett invented and used long, round-nosed pliers with which to break the neck, it being more humane and effectual and its use less tiresome to the hand than the other methods.

In their nesting places, young hickory trees fully fifty feet high would be so loaded with pigeons that they would bend over until a man could touch their tops.

When the birds started out in the morning at day-break to forage for food, they would circle the roost until the flock looked like one solid body, then take their course to feed, going many miles.

The male bird would sit on the nest in the afternoon. The morning flights were composed of the male birds. They returned at noon, and the females would go in search of food, but soon return to take the nest in the night. This applies only to birds that were nesting. The birds that did not nest were "mixed birds," and were too young to nest. When birds were nesting

the females furnished a curd for the young which looked like sour or thick milk, and was commonly called "pigeon milk." This they fed to the young for the first week or ten days after they were hatched. Then the parent birds furnished such food as they gathered from the fields and woods.

The birds arrived on their northern migration about the middle of March, and from that time nested every four weeks until the month of June, which was their last hatching. Two eggs were laid in each hatching. Forty or more nests have been found on one beach tree. The nests are composed of small sticks crossed and recrossed on the small branches of the trees. One would wonder how the birds managed to keep the eggs in such a frail and open nest, as they could frequently be seen through the sticks that composed the nest.

During the night the female bird roosted nearby the nest, waiting for the coming of the morning; then she would incubate the eggs or care for the young, and the male take to roaming in search of food as already described.

After the nesting season closed in June the birds would scatter about and wander in small flocks until the latter part of October, then collect together in larger flocks and start for the south and southwest. In the early part of the fall or winter they stayed in Arkansas or Missouri, then migrated to the Indian Territory and Texas and still farther down into the southern states, where they fed on wild rice. In the spring flight birds have been caught within four miles

of Williamsport with wild rice in their crops that had doubtless been gathered the morning of the day when they were caught.

Pigeoneers kept each other constantly informed as to the movements of the birds and probable nesting grounds. Birds were shot from passing flocks and dissected to see the egg development, and from that would determine, if possible, the nesting time.

I have a letter from Mr. S. A. Stephan, general manager of the Cincinnati Zoological Garden, Cincinnati, Ohio, which he wrote me at the time of the death of the last passenger pigeon which they had in captivity, in which he says: "The last survivor, female, died at 2 o'clock p. m. on Saturday, August 29, 1914, it being the last of a flock of seventeen that was captured in the year 1876." Sincerely yours,

CHARLES H. ELDON.

Letter from Cincinnati Zoo:

THE CINCINNATI ZOOLOGICAL COMPANY

Cincinnati, Ohio, August 19, 1913.

Mr. Charles H. Eldon,
331 W. Fourth Street,
Williamsport, Pa.

Dear Sir:

Replying to your inquiry of August 11th, I beg to say that our one remaining wild Passenger Pigeon is still alive and is apparently in a good healthy condi-

tion and fine plumage, and we have great hopes of keeping it for a good many years to come.

Very truly yours,

S. A. STEPHAN

P. S.—The bird is one remaining out of a flock of Passenger Pigeons that were secured by the Zoo in 1876.

Letter from James V. Bennett, famous pigeonier:
“Dear Col. Shoemaker:

“In the spring of 1863, I was living with my uncle on his farm in Blooming Grove, near Ball’s Mills, in Lycoming County. We would always get ready for the spring flight of the wild pigeon, just the same as we would get ready to plant our crops, and just as sure as there was a good crop of beach nuts, we could expect a heavy flight of pigeons coming or going north as they usually roosted on the headwaters of Pleasant Stream on a branch called Pigeon Roost Run.

In the spring of 1867, I was helping my uncle get out timber for a new bank barn. The pigeons started to fly in heavy flight directly from the south and as I remember that stopped the barn building for a time.

I continued following the wild pigeon from year to year until the fall of 1877, when on September 15, I started for the Indian Territory, or rather expected to find the birds some where in Arkansas. I started in pursuit of the birds from Verona, Mo., in a covered wagon with two horses, going from one valley to an-



NOTHING BUT THE ADDRESS CAN BE PLACED ON THIS SIDE.

J. V. Bennett

Williamsport

E. 3rd St 1885

Pa

THE LAST MESSAGE

Address Side of Card Sent to Mr. Bennett, Informing Him of
Last Flight of Wild Pigeons, 1888.

Sheffield Va
March 25th
1888

Friend James

There is Birds seen
there round through
the woods in small
flocks several flocks
been seen in the last 2
days, do you see any
the last I heard the 18th.
There was some seen in
Ind, and report they had
left Ark, and were seen
fly in the Cumberland
Mt. Va as soon as they
can get to ground in
N.Y. state they will see
them as soon as we can
hear of Birds there cut
and I will go to Leale Park
behind Post + I the same.

THE LAST MESSAGE

Reverse Side of Card Sent to Mr. Bennett, Informing Him of
Last Flight of Wild Pigeons Before Their Mysterious
Disappearance, 1888.

other until I reached Cherokee, near the line between Arkansas and the Indian Territory, there I heard the birds were roosting at Highcove, Indian Territory, about two days travel from Cherokee, taking what was called the State Road going through vast timber lands on which grew what they called Black Jack Oak, on these oak trees grew a small acorn which the birds were feeding on. On the evening of my second day through the Territory, I came to the pigeon roost. I could hear the birds creaking and flying in such large flocks for about one mile before I reached the roost. The size of the roost was estimated to be fifteen miles by forty miles. My meat supply was getting low, so I decided on having some pigeon pie. The moon was shining very bright. Taking my shot gun I fired two shots into the trees and picked up forty-one pigeons. There were nine Indians in this roost shooting for the market, and in three nights, killed and sold 3,630 pigeons.

I remained in the Territory until February, 1878, when I left for Pennsylvania, to get ready for the spring flight in March, 1878. I pitched my tent near Kane, at a place called Highland. That season there was carload after carload shipped from Kane and Sheffield, to the northern market. The spring of 1882 was my last year to follow the wild pigeon, leaving the forests of Potter County on the Coudersport Pike, May 29, 1882. However, in 1884, I received a letter from a friend from Hartsgrrove, Ind., who had just returned from the Indian Territory,

stating that the wild pigeons were flying up the Missouri River in heavy flight. Then I got a postal card that a few 'scout' birds were flying about Sheffield, Pa., in March, 1888. That was the last time I had any trace of the fast flying Passenger or wild pigeon."

JAMES V. BENNETT,

Dec. 1, 1918.

Williamsport, Pa.



CHAPTER XXX.

FLIGHT OF PIGEONS

**Frank Kiess Owns Net in Which He Caught
Hundreds of Birds**

James V. Bennett, Pigeoneer

Methods of Netting Described by Men Who Actually
Caught and Sold Birds—Charles H. Eldon,
Taxidermist, Has Interesting Display

FLIGHTS of wild pigeons that almost obscured the sun are recalled by the display of a large net, a stool, hubs, baskets and other equipment used by the pigeoneers in the days when the netting of pigeons was a business as the raising of squabs today. Many of the older residents of Williamsport recall the flights of the birds and not a few followed the business of trapping them back in the '70's. They were caught frequently in the hills four miles north of the city, and in the Warrensville section. Today there is only one wild pigeon in existance, and she is in captivity in the Cincinnati Zoological Garden, having been captured in 1876. Charles H. Eldon has the last wild pigeon killed in this section. It was shot near Linden, October 5, 1890, and shows the typical plumage of the species.

Frank C. Kiess, a native of Warrensville, but now a resident of this city, netted pigeons in his younger days, and preserved his equipment, including a net 24 x 28 feet in size and made from flax raised by himself and spun by his aunts, Dorothy and Katherine Kiess. The net, when completed, was stained in butter-nut bark to resemble the color of the earth, so that it would not be observed by the pigeons.

James V. Bennett, of the contracting firm of James V. Bennett & Co., followed the pigeons from Oklahoma, their roost, to the creek valleys in this vicinity where they nested, and made a business of supplying the market with dead and live birds. In those days the dead pigeons brought from 90 cents to \$2.00 a dozen. Many were shipped to Buffalo, and other shooting clubs in cities, where they brought \$2.25 a dozen.

In his business as pigoneer, Mr. Bennett came in close touch with the methods of trappers. From the time the pigeons started their spring flight from roosts in Texas, Oklahoma and Arkansas, they were the prey of netters and gunners until they reached their nesting grounds on Potato Creek in McKean County, Cherry Creek in Potter County and Tionesta and Blue Jay Creeks in Elk County. Even in the nesting places raiders sometimes disturbed the birds and slaughtered them, leaving their eggs and young to perish. Mr. Bennett states that in a single shot on a roost in Oklahoma, he brought down forty-one birds, so thickly were they crowded among the trees on a roost that was said to

extend over a distance of fifteen miles wide and forty miles long. The shot was made near Hocooc, Oklahoma, in 1882, after the birds had ceased their flights north, the last of these being in 1875. Mr. Bennett stopped netting in 1882.

Netting pigeons was no small trick, according to Mr. Bennett. In order to insure success it was necessary to keep stool pigeons and flyers from one year to another. When the flights of the pigeons began, the pigeoneers wrote letters and postals detailing the general direction of the flight. In the spring, nets usually were set in cornfields with the corn cut low in spots. In the fall the nets were spread in buckwheat fields. In preparing for a catch the pigeoneers concealed themselves in a bough house, made from spruce or other loose material. The net was set at one side of a section of prepared earth, salt being whipped in, the net being spread in narrow folds. One side was made fast to the earth and the rope from the other was attached to the ends of two spring poles that could be released from the bough house some fifty or sixty feet away. Near the net was the stool with the stool pigeon. The bird was blinded temporarily by running silk threads through the eyelids and tied so as to not injure the sight. The stool pigeon would then sit quietly and not flutter about so as to frighten away the flocks that were sought by the trapper.

When a flock came in sight, the flyers would be sent up with twine attached. These birds would attract the attention of the flock and cause it to land

near the net. When the flock appeared to break the stool would be pulled so that the stool pigeon would go through a hovering motion as if it was about to land. Like an arrow, the birds would swerve from their course, breaking in the middle and amid a great fluttering of wings would land on the bed prepared for them. That instant the rope from the bough house would release the spring poles and the net would be thrown over all the birds within reach. The other birds would fly away in fright, while the men from the bough house would rush out and throw their weight on the net or lay rails on the edge of it to keep the birds within from escaping. The birds were killed by pinching their necks between the thumb and fingers of the pigeoneer. This method proved tiresome in big catches, so Mr. Bennett invented a pair of pinchers which were less cruel and more effective.

In these catches it was not unusual to take as many as from 150 to 200 dozen birds. These were killed and dressed for market or were smoked and kept for home use. The latest great flight of wild pigeons recalled by Mr. Bennett, was up the Missouri river, in March, 1883, but after that date there appears to be no record of wild pigeons in great numbers. What became of them is unknown. Some believe they were driven out to sea in a storm and perished, while others insist that the birds still are in Canada and may yet return to their native haunts. However, it is generally assumed among scientists who have made careful investigation of the disappearance of the wild pig-

cons that they were victims of disease and natural and unnatural enemies until finally the birds were exterminated.—Williamsport, Pa., "Grit" (Old Home Week Edition).

Extracts from a Personal Letter from Mr. Eldon

DEAR COL. SHOEMAKER:

* * * * * The pincers for killing passenger pigeons were invented and used by James V. Bennett. The passenger pigeon picture shows its present mounting under an oval covered glass—the window reflection in the picture could not be avoided. The artist can eliminate it in the making of the cut. The bird is in a sealed case, and I did not care to open it. Hence the picture through the glass. I thought to have a picture made of myself and the framed bird, a copy of which will also be sent you.

The stool pigeon basket is of unusual form—there being no top though the heads and backs of the pigeons could not be injured in their effort to get out, nor could their backs and wing coverts be injured by abrasion while being carried. I just called up by phone, Mr. Frank B. Rynearson, of Huntersville, Pa., from whom I obtained the basket. It was made and used for several years by his father, Mr. Bernet Rynearson, who was a noted pigeon netter at the above named place, where the pigeons nested regularly. The basket is over one hundred years old. This basket I am keeping for you until you return to Restless Oaks, or will be sent direct to some other

address as you may elect. I overlooked in my former letter to say the pigeon that forms the subject of this letter was killed on the old Fincher Homestead. Enclosed also, is a copy of a letter received from the General Manager of the Cincinnati Zoological Company, which will explain itself later on. *Mr. Stephan wrote me telling me of the death of the Passenger Pigeon which occurred on Saturday, August 29, 1914, at two o'clock P. M., in the Zoological Garden, Cincinnati, Ohio, it being the last of a flock of seventeen that was captured in the year 1876.*

During my search for the letter I came across a wealth of information gleaned from repeated talks with Mr. Bennett upon his favorite topic—the Passenger Pigeon—even more comprehensive if possible, than the papers given you, shows that life habits of the birds which have been aptly told, in their varying forms, and will be a wonderful addition for a revised edition of the book, if you do not care to delay this the first issue for their insertion. I was greatly pleased to find this memoranda, and will some day put this item in readable form as soon as the present business rush is over. I have a drawing made by Mr. Bennett, showing the method of setting the nets and method of springing the net, and throwing same by spring poles over the birds, location of bough houses and stool pigeons, etc.

I cannot find the clipping from Grit, giving an account of Old Home Week in which was given a description of my exhibit of pigeon trapping outfit which

was shown in front of my business place at that time. I have, however, a type-written copy of the same, which was furnished me some time past—they being unable to furnish a clipping. I will enclose you a copy of same. I'm quite convinced the description will be interesting and instructive.

I am also pleased to enclose the article written by Mr. Bennett and to which I referred in my previous letter. Mr. Bennett is away on a hunting trip, so Mrs. Bennett informed me yesterday—but that she would send me by her son, the desired postal. I did not receive them until last evening, or I should have had a photo made of the one you desire, March 25, 1888, which will be attended to Monday morning.

Fraternally yours,

Dec. 3rd, 1918.

CHARLES H. ELDON

P. S.—As to the Passenger Pigeon now in my collection, this bird was shot October 5, 1890, by Mr. Jasper H. Fincher, two miles north of the town of Linden, Pa., in a woods through which the Queneshaque Creek flows. Mr. Fincher and a company of friends were picnicing there, when he saw a bird fly up from the ground and light on a tree. He shot the bird and was surprised when informed it was a wild pigeon—he having never seen one before or since. I mounted the bird promptly upon its receipt, for Mr. De Loss Mahaffey, who left it in my care. A few years ago, I purchased the bird from Mr. Mahaffey. I regard the bird as one of my choice possessions.

C. H. E.



Photograph of the last Passenger Pigeon-female-taken in year 1911 in The Cincinnati Zoological Garden, Cin., O. The bird died at 20'clock P. M. on Saturday August 29th, 1914, it being the last of a flock of seventeen captured in 1876.

LAST PASSENGER PIGEON

Died at Cincinnati, O., Zoo, August 29, 1914.

CHAPTER XXXI.

HOW THE PASSENGER PIGEON CAME TO AN UNTIMELY END

By DR. B. H. WARREN,
Former Director, Everhart Museum, Scranton. Author "The
Birds of Pennsylvania," Etc.

THE Passenger Pigeon, or wild pigeon, as it is better known to older residents, who in early childhood days, saw immense flocks of the species in this state, is now extinct. As H. W. Henshaw, chief of the biological survey, writes in the National Geographic Magazine, "on September 1, 1914, aged 20 years, departed this life, the sole surviving Passenger Pigeon. This brief obituary records the disappearance from earth, not only of the last survivor of a notable American game bird, but, what is infinitely sadder, the passing of a species." (The correct date is August 29, 1914.)

The last living wild pigeon had been a captive for some years in the Cincinnati zoological garden. The common mourning or turtle dove is frequently mistaken for the wild pigeon by many persons who are not acquainted with the two species. There seems to be no doubt whatever in the minds of the best naturalists in America, that the Passenger or wild pigeon is extinct.

The disappearance of the species, of course, prevents natural history students from studying the wild pigeon in life, yet there are fortunately many stuffed specimens of the species in museums of the United States and Europe. There are, I find, quite a number of mounted wild pigeons in numerous private collections and in this state. I have also seen in the last two or three years at least, a dozen stuffed wild pigeons which are owned by private individuals in Pennsylvania. These birds are used as mantel or mural decorations in rooms.

Pigeons in Former Years

The following extremely interesting information concerning the wild pigeons is gleaned from a recent conversation I had with C. K. Sober, of Lewisburg, an old-time hunter, and one of the best-informed individuals in this state on the subject of game birds and mammals of Pennsylvania. Mr. Sober spent his seventy-third birthday on November 24th, hunting ruffed grouse on his famous Paragon Chestnut farm, in Irish Valley, about six miles from Shamokin. Mr. Sober, when too young to handle a gun, began his hunting career by using a bow and arrow, with which he killed rabbits and small birds. When twelve years old, he shot his first wild pigeon with a flint-lock gun, the property of one of his older brothers. Mr. Sober said:

“Pigeons would begin to collect in buckwheat fields, in September, or about the time buckwheat

started to ripen. At first, they came to the fields in twos or threes, and after a pair or so started to feed regularly in a field, the number increased daily until a flock of ten, twenty or more dozens of birds would come to the same field for food. As a rule, they would come early in the morning to feed. Their visits in the afternoon for provender were irregular, and they seemed to be more likely to come to the buckwheat fields on afternoons of foggy days. These pigeons would often collect in flocks on fields where wheat had been sown in September, and when the birds were numerous, they often did considerable injury to the wheat, and they frequently did much damage to buckwheat crops. Wild pigeons in daylight in the autumn, spent much time feeding on acorns and beechnuts in hardwood forests. The birds appeared to leave about the last of October, and return in the early spring, and collected in the buckwheat stubble, where they were netted by the hundreds of thousands.

Nested Early

“They began nesting early in April. The nests, flimsy, flat structures, were made of small sticks and twigs. Two white eggs were laid and these were a trifle smaller than eggs of domestic pigeons. All the nests I ever saw, were in beechwoods, and mostly on beech trees. I have seen from six to twenty-five, and even more nests on a single tree. The eggs or young could often be seen from the ground through

the loosely made nests, when placed on low branches. Nests on high limbs of tall trees looked not unlike black patches of moss and a certain species of dark-colored fungus which often grows on the beech and some other trees of the forest. A row of nests was sometimes to be seen on a single limb. Each pair of pigeons had a nest. The old birds, as well as their young, appeared to live in harmony.

Made Their Young Hustle

“The young pigeons in the nests were so scantily fed by the parents, that they were mere skeletons, and as soon as the youngsters were able to fly a short distance, the old birds crowded and drove them from the nests, from which they would fly to the ground in a heavy and labored manner. In falling and flying to the earth, many of the young were killed. Those which reached the ground uninjured, were hungry, and they would pick at the ends of bushes, leaves and almost anything in sight. They soon found beechnuts on the ground, and then they had an abundance of food. These young pigeons fed day after day, and extended the feeding ground over a large area of the beech woods. The old pigeons would not take beechnuts or other food, either for themselves or young within a radius of at least twenty miles of their nesting places. In July and August, the adults and young fed on huckleberries. I have often shot pigeons with plumage soiled by juices of this fruit.

Killed With Clubs

“On May 11, 12 and 13, 1880, I saw near Kane, McKean County, hundreds of young wild pigeons killed with clubs (mornings and evenings as they flew in long lines in an open passageway cut through brush and trees for a pipe line.) These birds (no adults were with them), flew by thousands, about six to twelve feet above the ground, in almost a continuous line along the open passageway through the forest and shrubbery. Men stationed themselves along the line and killed the birds, as they passed, with clubs. Guns were not used, as clubs were more effective. Birds slain in this manner, were carried off on wheelbarrows and by wagon loads.

“Some hunters and netters were expert in calling male wild pigeons, which uttered a shrill note, most frequently heard when at rest, but sometimes made in flight. The ‘call’ used was made of two wooden blocks and a piece of silk ribbon fixed taut as a violin string.

Method of Netting

“Experienced netters usually selected a marshy spot between nesting places and feeding grounds, and made a bed in which a quantity of salt was placed. Near this salt bed was a bough house, which they built. This was mostly made of green hemlock branches. A stool pigeon was placed on the bed and the call was utilized to lure the flocks of passing pigeons. At first, probably only a few birds would

come to the salt bed. The netters never disturbed them. Later on these birds would return with thousands of their species, which greedily fed upon the salted mud or dirt. When the birds became accustomed to frequent the salt bed, the nets were set. I have known as many as seventy-five dozen wild pigeons to have been caught at one haul. The usual market price for dead pigeons was \$1 per dozen.

“The great bulk of the pigeons that was sent to market, when removed from the nets, was taken out alive and put in pens. These pens, made of poles, were about eight or ten feet wide, six feet high and from fifty to one hundred feet long. The pens were built over streams of water, natural or introduced. The mud-covered and be-draggled birds would soon wash and clean themselves. These were sold by thousands for live-bird shooting contests, and usually brought twenty-five cents a pair.

Imprisoned in Pens

“The owner of these pens shipped the birds alive to all parts of the country. They were placed in wooden crates six inches high and about four feet square. These crates, with especially constructed ladders, were carried on wagons and the birds in them were sent to the market or turned out in a pigeon barn not less than one hundred feet square.

“The pigeons in this barn were fed on shelled corn, which was bought by the carload. A stream of running water ran through a barn, at Sheffield. This

barn was made of boards and had a shingle roof. Perches, such as poles and tree limbs, were in the place where thousands of the pigeons were kept in captivity.

Slain by Thousands

"In 1878, I attended a live-bird shoot at Oil City. It lasted three days, and between 200 and 300 marksmen participated. Several thousand birds—all wild pigeons—were shot on this occasion. May 11, 12 and 13, 1880, I shot in McKean County, about fourteen miles from Kane, forty-four dozen and nine wild pigeons, all adults. Only one bird was killed at a shot. These birds were taken as they flew between nesting place and feeding ground. Dead pigeons, mostly packed in barrels, were shipped to large cities in carload lots. These birds were not picked, nor were they eviscerated. The heads and wings, however, were usually pulled off.

"I have netted and aided to net thousands of pigeons during their flights to northern nesting places. Also, when they were feeding in wheat and buckwheat fields, but I never netted pigeons on salt beds.

Immense Flocks

"In May, 1878, when riding on the railway from Kane to a point about twenty miles west of Kane, I saw a constant flight of wild pigeons. There were millions, and all seemed to be adults. The continuous flock or stream of birds was fully twenty miles wide. This was in the morning.

“The stomachs and crops of wild pigeons which I examined, contained, as I now recall, buckwheat, beechnuts, wheat, acorns, seeds of maple, buds of the maple, also huckleberries, June berries, sassafras and gum berries.”—Philadelphia North American.

Still Hope for the Wild Pigeon

In a letter mailed at Alanson, Michigan, on the 9th instant, R. F. O'Reilly, of that town, again, sends to the *Union* and *Advertiser*, a statement about the wild pigeon that must be read with interest by the many who, in spite of discouraging facts, have entertained the hope that the bird was not totally extinct, and that some of them would come to view. On November 26th of last year, this paper contained a letter from Mr. O'Reilly, in which he said that a flock of wild pigeons had been frequenting his farm for three years, that the birds numbered about twenty-five, and that he was giving them every possible protection. His response to a letter written this summer, asking if the birds had returned, is as follows:

“Dear Sir: Yours received some time ago and have postponed answering it to see if I could get something substantial, something to verify my claim, but have not as yet. The flock is here again. I have seen them twice, and there are more than I thought last year. I would put them at fifty anyway, but both times they were flying higher than the trees and are not feeding in this immediate vicinity. I had hoped to be able to locate their nests and get some of the prize

money offered for an undisturbed nest, but I guess it is a long chance to find the nests.

"The mourning dove is here also, but they are always in pairs or four at this time. In fact, I saw a pair not an hour after seeing this band.

"I have talked with men from other counties, who have seen the pigeons. Our county school commissioner, H. S. Babcock, Harbor Springs, and William O'Neil, proprietor of the Park Hotel, Petoskey, claim to have seen them for several years and the latter was here in the great nesting time.

"I write you because, like you, I think they should be protected and brought to the attention of some authorities who will make it their business to save them if possible.

"The game department of this state has taken no steps to my knowledge. I am going to write them to-day. I get so many letters in regard to them, it is some job to answer them all."

Yours respectfully,

R. F. O'REILLY.

There seems to be no reason to doubt the repeated statements of Mr. O'Reilly, in regard to the remnant of the wild pigeons which he has had under observation for years. He not only gives his own word, but he gives the names of others who know of these pigeons, and will verify his statements.

It is exceedingly probable that a few of these birds may still visit the old roosts in Michigan, where they

flocked in countless millions, not many years ago. The apparently reliable testimony of Mr. O'Reilly and those who corroborate him, should receive the attention of the naturalists who maintain that the wild pigeon is totally extinct. The matter is respectfully referred to John Burroughs.—Rochester, N. Y., Union-Advertiser, (Aug. 12, 1914.)

Note on the Passenger Pigeon

About a year and one half ago, the Cornell University Museum came into the possession of a mounted adult male Passenger Pigeon through the kindness of its collector, Mr. J. L. Howard, of Clyde, N. Y., a justice of that city. He is now over 80 years old, and had the bird mounted by a local taxidermist, George L. Perkins, who is now dead. According to Mr. Howard's memory, the bird was taken in 1909, eleven years after the last certain capture (Sept. 14, 1898) of a Passenger Pigeon in the State. On the bottom of the mount is the legend, "Geo. L. Perkins, July 5, 1898,"—a date in close agreement with Mr. Wilbur's record (Sept. 14, 1898) at Canandaigua, N. Y. The mount might be an old mount from some other bird. Mr. Howard's letter follows:

"My account of the shooting of the Passenger Pigeon must be short as there was but little of it. Upon the John Heit farm about two and one-half miles southwest of Clyde and near the Clyde River is, and has been longer than I remember, a small pond nearly round and about three rods in diameter. A low hill

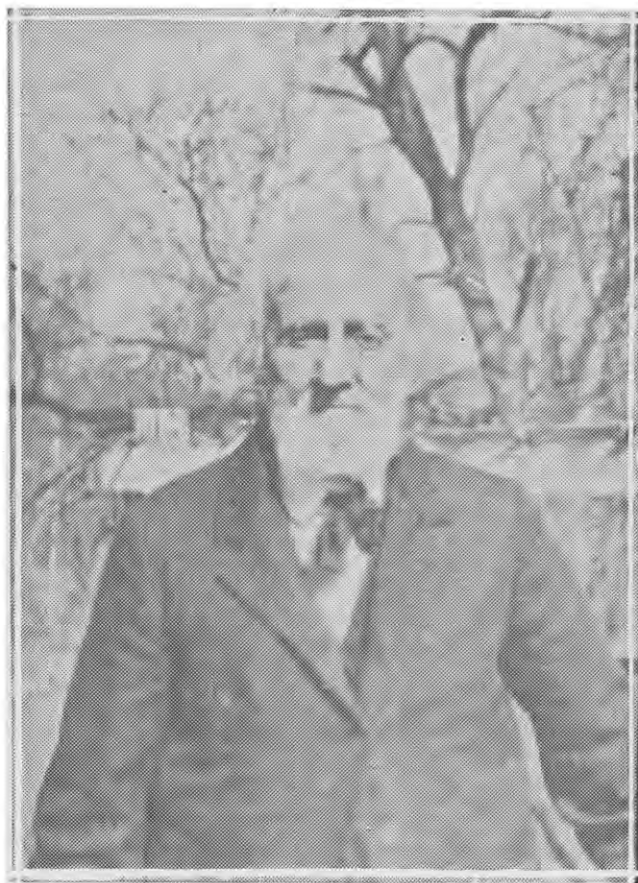
upon the south reaches to the water's edge forming the sloping beach. Years ago, this pond was in a large forest. Now this was always, as long as there were any pigeons, a favorite place for them to come and drink. Six years ago (1909) I think, I took my gun and went to this pond in hopes I might get a Blue Heron, which I very much wanted. There were tracks of herons, plover and other birds in the mud around the shores, so I sat down in some bushes and pulled them up around me, so as to partly conceal myself, facing the east, where I could see a long distance. Presently I saw, far to the east, a bird coming directly towards me. I took it to be a Pigeon Hawk. It flew off to my right and turned in behind me, and the next instant I heard its wings beating for a short span, and then I heard, to my right and very near, the loud and distant crow of a wild pigeon. Well, that was a surprise. I had not seen a pigeon in fifteen years or more and now I sat within a few feet of one and he kept on crowing. Well, I went to work at those bushes, pulling them apart when suddenly I saw him standing upon the top of a fence post and still crowing.

I picked up the gun and placed it to the shoulder and, old hunter and old trapshooter as I was, I could not hold the gun still, I trembled so. But I took a trap-shooter's chance and got the bird."—S. C. Bishop and A. H. Wright, Cornell University, Ithaca, N. Y. in "Auk," April, 1917.

Wild Pigeons in Delaware County

Media, Pa., Jan. 6.—While passing thru Springfield township today, Deputy Sheriff William M. Mathues, master hunter of this county, was surprised to see a flock of thirty or more wild pigeons feeding in a meadow. Mathues declares that he had not seen a wild pigeon in this county since 1876. (1917)





DANIEL OTT (1820-1916)

CHAPTER XXXII.

PIGEON FLOCKS IN WISCONSIN

Supposedly Extinct Wild Variety Hover Over Different Sections

WITHIN the past two weeks, two large flocks of wild pigeons have been seen in Wisconsin, according to creditable reports. Ten days ago, people living near Dexterville, Wood County, reported the presence of a flock of about fifty. Half a dozen men saw them and declare they cannot be mistaken—that the birds were wild pigeons. A few days later another flock, even larger than that seen at Dexterville, was discovered near New Lisbon. New Lisbon is in the heart of the old nesting grounds, where thirty or forty years ago millions of the birds spent each summer, fed on acorns in the oak groves, hatched their young, and in the fall began their long flight into the south.

Last One Was in Captivity

The last pigeon of the Passenger variety known to be in the United States, was in captivity in Philadelphia some years ago. Its mate had died, and \$500 was offered for a female with which to breed it, but the reward was never claimed. At the same time an ornithological society in the east, offered \$1,000 for a

nest of the Passenger Pigeon and a pair of the birds. This offer was never taken up.

Once Darkened Skies

Up to 1888, wild pigeons were the most numerous in the United States of any bird. In one year, 1887, more than 5,000,000 were trapped and shipped to Chicago alone. The nesting grounds covered the whole of the northern part of southern peninsula of Michigan, southwestern Wisconsin and parts of southern Minnesota, adjacent to the Mississippi River. It was estimated at that time that from 500,000 to 1,000,000 pigeons were in each of the numerous nesting colonies. The birds were trapped in huge nets that frequently caught 500 at a throw. They were hunted and killed by hundreds as they flew at sunrise from the nesting grounds to the feeding places. In southwestern Wisconsin, so plentiful were they, that they were killed by farmers with clubs and pitchforks. In the fall of 1888, there was the usual migration. And they never came back. Not one was seen, so far as known, since that flight to the south in 1888. The complete disappearance of the birds was a mystery. It was credited to the ravages of hunters, to the trap of the market hunter, to a terrific windstorm that blew great flocks to sea, where they perished, and by some scientists it was believed they had changed the migration tour to the southern zones far toward the Antarctic. (1916.)

Two Wild Pigeons Seen

The first wild pigeons seen in this vicinity for years, were seen two weeks ago by John Fry, while working at his lime kiln about two miles from town.

John says, they came flying up the little valley, and perched within gun shot of him. He did not know the law in regard to these birds, and decided not to bother them. It is rarely that you see wild pigeons in the United States, and as there is a nice premium on them, if landed, John would have made quite a sum of money.—McVeytown, Mifflin County, Democrat, October 29, 1914.

Statement of John H. Chatham, Veteran Pigeon Hunter.

Mr. John H. Chatham, of Clinton County, says: "Some time ago you asked me to give you my experiences in pigeon catching, netting, number of eggs laid, and a special single nest that came under my observation. My first experience of netting pigeons, was in 1862, shortly before the battle of Fair Oaks in front of Richmond, was fought. I date it from that time by the constant strain on my mind of my only brother, Jas. P., whom I knew would be in the fight as soon as the battle was started.

"First, we built the bough house in a field, then went to the woods and cut two spring poles, one we planted in the bough house, and the other about one hundred and fifty feet from it, out in the field. Then

we slung our two lines of rope from one to the other. Our next move was to attach a net to each rope, then the opposite side of the nets was carried back full width and anchored to the ground by stakes, cut from small saplings, with one limb left on and cut back to within three or four inches of the stake, and cut off about two inches above the hook, which it showed when finished, three small stakes were driven into the ground, so as to have the hook catch the rope, and were driven in to the head, one about every three or four feet apart. Then two stakes made of inch or inch and a half slats about three inches wide, with an auger hole bored about one-half inch into it near the top. These were driven in a line with the smaller stakes, and driven so that the sink hole in the stake was left about two inches above the surface of the ground.

“Then two throw sticks were introduced—these consisted generally of a part of an old broom handle, and were cut about two and one-half feet in length. The end to receive the rope was knicked in the end to prevent the rope from slipping. Then the net was carried back with the line and the smooth ends of the sticks placed in the concaved receptacle for it, and the forked end against the rope. It was then pressed down to an angle which held it in place. If it failed to do it, a few small stones were laid on it to hold it down, then the bag or slack of the net was folded up and piled close to the line. A few weeds were generally thrown on it to hide it from the pigeons.

“Our next operation was to fix up for the stool pigeon. A mortised stake about three feet long, have a pole about five feet long with a round stool nailed to one end and flattened, so as to work easily on a pin, which went through the stake at the slot, and through the pin, about two-thirds of the distance from the end next to the foot. A strong cord was tied around it, and strung through a small auger hole above the slot, the other end was then taken and carried to the bough house, where the man inside operated it. The stool pigeon was then taken and blinded by taking a silk thread and a needle to puncture the lower eye lid, and install the thread. After getting the thread through both lower lids, it was taken over the top of the pigeon’s head and tied and hidden away in the feathers of the head—then the boots were put on his feet and carried out to the stool. The boots consisted of a leather strap, just wide enough to cut a slit in it, and put the other end through it, then slip the pigeon’s feet into the loop, draw it tight, and fasten it to the stool—so that the pigeon remained in a sitting position. The stool consisted of a round board, about four inches wide and covered with cloth and padded underneath, to protect the pigeon when being in use. Two staples were driven in the stool to fasten the boots to.

“Now we go back to the bough house, and complete the arrangements by taking two more pigeons, blinding them as we did the stool; they are not booted. A light line is tied to one leg of each pigeon, and we

go into the bough house—eagerly scanning the horizon for the coming pigeons. Presently, a scattered flock of some two or three hundred appear. We both sally out, and when we think near enough, toss our flyers into the air. They go up the length of their lines, fifty or sixty feet, and find they are anchored, and return to the ground, wherever their blinded lot may light them. Then we rush in and “Play the Stool”—pulling on the cord and lifting it from the ground where it rests on a small pod of grass.

“We lift it about three feet and let it drop instantly, in this operation, the stool flutters on its way downward, imitating pigeons feeding on the ground, when other flocks are passing. Soon we see the flock beginning to sail, they whirl, sail over the bed, turn and sail for lighting. We never wait a second. As soon as we think we have a fair amount of them lighting and about to light, we surge on the spring pole and spring the nets, rush out and hold down the sides, to keep them in, for with their united effort, they carry the net off the ground, and the ones near the sides escape. Here I stop, think and ask myself, “Shall I finish the picture?” To stop, would not be giving the reader a full account of “Pigeon Catching.” To finish, brings the animal part of our nature to the surface, at which I now shudder.

The trappers now went in on top of the nets, walked over them, and stooping down, placed their thumb on the top of the pigeon’s head, their finger under his bill, and pressed the skull down till it

crushed, and the bird's life went out. After all the birds had been treated, the nets were reset, the dead pigeons carried into the bough house, in bags, and another "lookout," kept.

"I think I gave you an outline of 'Pigeon Nesting,' and will only give you a general view of the subject. First, they sent out an expedition of some three or four hundred pigeons in the very early spring, as soon as the hillsides were bare. This expedition determined the food question, and returned to the flock—as the swarming bee knows its tree before leaving the hive, so did the pigeon know its nesting place before starting from its winter quarters. The nesting was built in compact form, with a certain length and width. So closely did they comply with this method, that trees on the sides of the nesting often would have from twenty-five to fifty nests on the inside and not a single nest on the opposite side of the tree, but a few scattered birds would nest alone, or in groups, miles from the general nesting. They built a poorly constructed nest, of just enough sticks to hold the eggs. And in most nests, visitors to the nesting could easily see the eggs shining through from the ground. *They laid two eggs*, to the pair, though many, very many nests had but one egg in, and as many more had none at all.

"A pair of pigeons would build a nest in a day or two, at most. Sometimes the weather was against them, and an egg had to be dropped before a receptacle for it was ready. Others were trapped or shot before

laying, and many that did lay their two eggs in the nest, were knocked out by the intrusion of other birds weighing down the limbs on which the nests were built. Wind storms did a considerable part. The nests were generally about twelve feet above the ground, and from that up to about twenty-five feet. They never went up into the high tree tops to nest, probably on account of wind. During the nesting period they never fed nearer than about ten miles from the nesting—this feed was kept in reserve for the squabs.

“When the period of incubation began, the greatest flight from the nesting was about 6 o'clock or just when light enough for them to see, then the mother hen pigeons that had been on the eggs all night, wanted out for their breakfast. This was the greatest flight of the whole day, as they returned in scattered flocks; other scattered flocks went out that had been on duty.

Now, for my experience on the single nest: “A playmate of mine, W. W. Smith, said to me one day, ‘I know a pigeon’s nest.’ I asked him to take me to it, and he agreed. We started out the ‘Gap,’ and about on the line between your domain and the City Water Work. We came to it on a little oak sapling about eight feet from the ground, there were two young pigeons in it, which later on, his older brother took from the nest and took them home to raise and train for stool pigeons. I saw them in his father’s home, afterwards, and they were taken every day, when fed, placed on the trapper’s hand with his thumb over the toes and balanced upward and downward, to make them flutter,

and learn to gather up their wings without drooping them.

“In conclusion, I want to narrate a little incident that happened this same old pigeon trapper that I have just described.

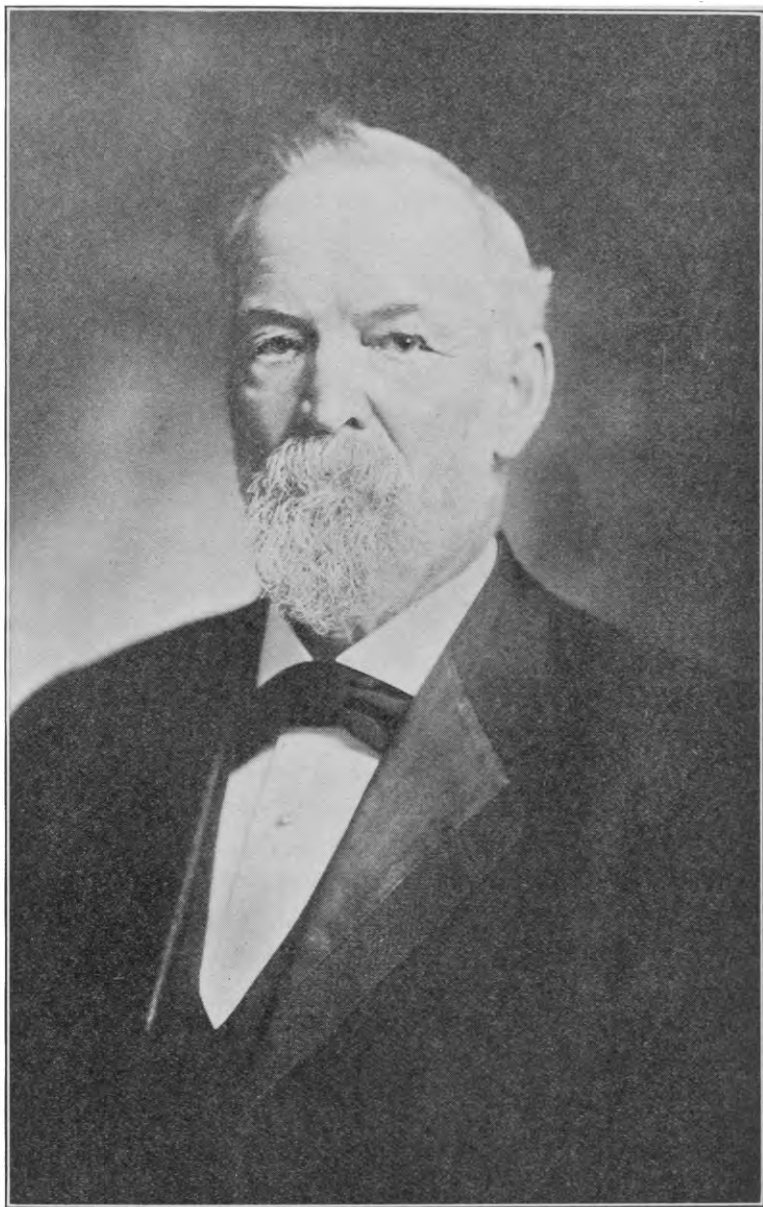
“He and his Brother M., had gotten ready to fish for pigeons, and from the condition of the weather, the pigeons were daily expected to appear. So with set nets, pigeon on the stool, and flyers in the bough house, they smoked their pipes, and waited for something to come. Something did come. About 2 o'clock in the afternoon, a pigeon hawk looped down on the lone stool pigeon sitting on the stool—struck it, but on account of its being tied down, did not take it with him. He circled, came back and alighted on it, and was about to make his late dinner on the stool, when the old man sprang the nets on him, and crawled out and captured him alive. Of course, the atmosphere was blue for a while, then the brothers held a council of war on the hawk, and agreed to pick him all but the wing and tail feathers, and let him go. He went, but, divested of so much of his flying apparatus—‘looped the loop,’ made the ‘maple leaf whirl’ and all other difficult feats of flight.”

Mr. Chatham, under date of Nov. 13, 1918, writes as follows:

“Yours at hand and in reply to the salt beds for catching pigeons, would state: They differed but little from the field methods. A spot was selected in the

timber or woods where there was an open space or few trees. Then the leaves were raked off and the bare ground exposed—generally a damp spot was selected. Then this space was sprinkled heavily with salt, and after being treated with it, a stamper was used to stamp it into the ground. Then the bough house was built, the same as for field catching. A spring pole, stiff enough to spring two nets, was installed out in the woods, beyond the nets, about fifty feet distant. Another was installed inside the bough house, then a double line of rope was strung from one pole to the other; these were the ‘throw’ ropes and to each of them, the front part of the nets were fastened and hauled back to the stakes where the back part of the nets was fastened to the ground, and held there by means of two sticks, with a notch in the ends of them, to receive the ropes. The front side of the nets were then carried back out of line to the back side, when it was folded up and held by the notched sticks which were supported by a stake at the opposite end of the set stick, or the stick which was not notched as stated above, was high enough at the end of resistance, from the ground, to keep the end supporting the net lying on the ground with the rope. Now when all this was in readiness, the ‘catcher’ went home, because, in this method, no stool pigeon or flyers were required.

“In two or three days, the pigeons had found the salt and began to frequent the place. When they got



HON. COLEMAN K. SOBER

busy, the catcher knew it. He got up before daylight, and went to the bough house and waited for the pigeons to come. About 6 o'clock, or about daylight, the largest flight from the nesting took place. That is, the pigeons that had been on the nests all night at that time were relieved by their mates. They sought the salt bed and took it the same way they gathered their food in the woods by what seemed to be a rolling process. That is, they did not alight, but kept on the wing and rested on their beaks, the front line being supported by the rear, and all the time new recruits from the rear and the flock entering the front, so that nothing was visible but tails, all sticking up in the air. And when the bed was as full as it could or likely would be, the man in the bough house gave the spring pole in front of him one mighty surge backwards, releasing the nets, which sprung toward each other, each net getting the pigeons near the center that would have escaped by their alertness. The wild pigeons, as may be inferred, were inordinately fond of salt. The field catching was done in the same way, only that a stool pigeon and flyers were used to draw them from the sky in their flight. The word 'stool pigeon' has become a part of the English language, though it is safe to say that not one person in a thousand who uses it will associate it with the trapper's method of capturing the Passenger Pigeons of the olden days."

Note on C. H. Shearer's Remarkable Painting, "The Flight of the Wild Pigeons, Appearing in This Volume.

This fine work of art was painted during the winter of 1910-1911, by the venerable artist, Christopher H. Shearer, of Reading, Berks County, who was born in 1846. Mr. Shearer ranks with Pennsylvania's leading artists, his most famous canvasses being "The Schwartzbach" and "Maiden Creek," which were much admired at the Centennial Exposition at Philadelphia in 1876; "The Drachenfels" and "The Forest of Montmorency." Mr. Shearer studied under the immortal Dan Devlan, at Reading, and later in Paris and in Germany. He is equally well known as an etcher. In the scientific world he holds a prominent place, being regarded as one of the leading entomologists of the United States. He is an expert ornithologist, and in his youth devoted much time to gunning and netting for wild pigeons. He is, therefore, well fitted to be the creator of the only painting in existence of the vast number of birds in flight. The picture shows a scene in Berks County. The Schuylkill River is winding its way through the middle distance; in the background appears the long level wall of the Blue Mountains; the foreground is probably the rocky height of Scull's Hill. For several years this painting hung in the executive office of Dr. W. T. Hornaday, Director of the New York Zoological Gardens at the Bronx, having been loaned to the great conservator of wild life by Colonel Shoemaker, at whose wish the picture was painted by Reading's "Good Grey Artist."

CHAPTER XXXIII.

THE DOVE NOT A PEACE BIRD

DOVES, according to popular tradition, are the last things in the world to connect with war. Doves and pigeons are, or were, pacifists of the most virulent type. Another cherished yarn has to go by the wall, for an authority says that "five minutes in a pigeon-cote * * * will result in a lifetime of wondering why the idealized bird was chosen as an emblem of peace, for this stout-hearted little bird, once called the "dove of peace," is now known and cherished as "the war-pigeon."

There "being nothing new under the sun," one is not surprised to find that the ancient Egyptians and Persians used pigeons, just as today, as messengers in war-time. Then from the Orient to Holland and Belgium and Merrie England came the birds, the ancestors of the pigeons that have played so important a part in driving the Huns to their lairs.

It brings the subject close home to us when we remember that in the Pigeon Division of the Signal Corps Louis Wahl and William Smead, of the New York "Zoo," are in charge and that Corp. Donald Carter, once in the Gardens, is in active service in France, among "the doves."

Mr. Lee S. Crandall, in *The Zoological Society Bulletin* (New York), has interesting things to say about

the birds. After speaking of Smerles, "Owls," Dragons, Horsemen, Skinnums, Cumulets, etc., he proceeds:

From this seeming chaos, after many vicissitudes, the racing homer, unequalled in speed, endurance and intelligence, finally was evolved. These three characters have remained the great objectives of the breeder, and color, markings, and other points commonly sought among domestic pigeons have been ignored. Many derivatives, bred for exhibition points only, have risen to popularity, but the racer, not always uniform in type and color, though never failing in courage and love of home, still remains the pigeon of pigeons.

Having proved its value as a flier in Belgium, the newly evolved breed was quickly imported into England, and later was brought to America. The sport of pigeon-racing soon became popularized, and its devotees now number thousands. In America hundreds of races are flown yearly under the auspices of local clubs and the larger national organizations with which they are affiliated. With the overrunning of Belgium by the German hordes of pickers and stealers, the great majority of the famous studs of racing pigeons were seized and sent to Germany. However, the blood of these great strains is widely spread and strongly cherished in England and in America, so that they will not become lost to civilization.

Through a confusion of names, which has become widespread, the homing pigeon is almost invariably referred to in news reports as the "carrier." He is a

carrier so far as service performed is concerned, but, unfortunately, that name was long ago pre-empted by an entirely different bird, closely related to the Dragoon and Horseman, and known as the English Carrier. This pigeon, while perhaps originally used for flying, now is useless for that purpose, and is kept for exhibition only. It is a large bird, with extremely long neck and legs, and carries a huge mass of flesh about the eyes and on the beak. This misuse of names has caused much of the credit due the true homer to be given a pigeon which would not home from a distance of a mile.

Many misunderstandings have arisen as to the homing abilities of the war-pigeon. Many persons appear to believe that it is merely necessary to whisper a few directions in the bird's ear, toss it into the air, and watch it strike out for the destination indicated. Other fancies, still wider of the truth, are numerous. There is nothing supernatural about the homer. It simply has a strongly developed love of home, a wonderful sense of direction, and the strength and courage to return to its loft when released at a distance.

Sense of direction is strongly developed in most birds. We have only to consider the marvelous migration flights of many species to realize that this is true. In domestic pigeons this sense, doubtless native to the wild rock-dove, from which they are descended, has degenerated through countless generations of life in captivity. Only in the homer has it been retained and

magnified by long-continued breeding and selection for this point alone.

All sorts of theories have been advanced as to how a homer finds its way, extraordinary sight, electrical influences, and so on, and so on. It would seem, however, that it is simply that mysterious sense direction, common to all birds, strengthened and developed by "the intensive training to which the young homer is subjected." One important part of this is, that, from the very first, the bird learns well its home surroundings. To continue:

When free flying is begun, 400 miles is the greatest distance birds of the year usually are asked to accomplish, but exceptional youngsters occasionally have done 600. Five hundred miles is the most popular long-distance race for old birds, but contests up to 1,000 miles are flown yearly. Eight hundred miles were accomplished in one day by a famous bird, but distances over 500 miles usually require more than a single day.

The speed at which homing pigeons fly is one of the first questions that comes to the mind of the inquiring layman. This varies greatly with the distance, the shorter distances naturally being flown in much faster time. Flights of 100 miles with a favoring wind, often are made at the rate of a mile a minute, or even better. Recent tests under the supervision of the Signal Corps showed that field messages sent by means of homing pigeons were delivered in much shorter time than by automobile or motorcycle.

The longest official distance flown by a homing pigeon was a flight from Denver, Colorado, to Springfield, Mass., 1,689 miles. A little more than twenty-three days were required for this feat, the bird flying only by day, gleaning its food from fields and poultry yards as it came.

The fastest time for 1,000 miles is one day and eleven hours, a truly remarkable performance. This bird, rejoicing in the name of "Bullet," still lives in Fort Wayne, Indiana. It is a satisfaction to know that both these world's champions were produced in America, giving assurance that the heritage of the now scattered lofts of Belgium has not been neglected in this country. Grandchildren of both these famous birds are included in the flock recently installed in the New York Zoological Park. Others of almost equally illustrious descent complete the new exhibit, which is proving of great interest to our visitors.—*Literary Digest.*



CHAPTER XXXIV.

STRAY PASSENGER PIGEONS.

**Reported by a Rochester Observer Familiar With
the Birds.**

From New York Sun, January, 1919.

To the Editor of the Sun:

SIR:—I have seen Passenger Pigeons more or less frequently for the last fifteen years in the vicinity of Rochester. I am familiar with the Passenger Pigeon; in the town where as a boy I used to spend my summers, Winona, Minn., there was a shooting club that used to shoot pigeons from traps and the pigeons used were wild pigeons.

The shooting stand was in front of a small grand stand on the local race track, and the entire space underneath the stand was divided into two places by laths and was filled with wild pigeons, which were trapped. We boys with our guns used to post ourselves around the outskirts of the race track, and any pigeon that escaped the trap-shooters was pretty sure to get his.

I shot them as a boy as they were roosting on telegraph wires in the street that ran by my uncle's residence and had many of them as pets and tried to raise them and breed them. Thus I am very familiar with the birds. So is my wife.

This summer I saw four, one flying, one perched singly on a telegraph wire—a cock—and in September I saw two perched on a telegraph wire in the vicinity

of my home in the country. These two birds remained there some time; they were about 300 feet away, and we examined them carefully through our glasses and they were Passenger Pigeons.

I have seen them, perhaps one or two a season, the past twenty years in the Genesee Valley. I don't think there is any possibility of a mistake. They were very common when I was a boy in Minnesota and my people used to put down every season two or three big crocks of them for use in the winter time.

GEORGE J. FRENCH.

ROCHESTER, N. Y., JANUARY 19th.

POSTSCRIPT.

39 MILL STREET, SMETHPORT, PA., JAN. 23, 1919.
COLONEL HENRY W. SHOEMAKER,

Washington, D. C.:

DEAR COLONEL—Knowing you to be a man who likes to keep track of natural history and a man who is trying to keep a tab on the birds and animals that have become extinct in our country, we thought the following might interest you:

In the fore part of September, 1918, as we were going to our war garden, which is in the town of Concord, Mass., we saw a flock of about 200 beautiful Passenger Pigeons. There is not a possible chance for us to be mistaken about these birds, for the sky was clear, the sun shone bright and the birds passed within 150 feet of us, so we had a fair view of them.

The country there is practically level and all cleared, so we could see these birds a long distance. They flew in a northerly direction until they were nearly out of our range of vision, when they circled to the left and came back on the northwest side of us and about the same distance from us as they were when they passed at first, but on the opposite side, and we could plainly see the white breasts of the hens and the red breasts of the toms. These birds are a uniform color except the red and white breasts of the toms and hens. When these birds are making a flight they fly as steady as wild geese or ducks. They do not wobble or crisscross, but go straight ahead, unless something frightens them. Then, too, they have the long, pointed tail. Of course, there are rare exceptions as to color. During our time we saw ten or twelve spotted birds. Some of them are about white. During the latter part of the fifties we saw a snow-white Passenger Pigeon, ten or twelve different times. We have photographs in our memory of the Passenger Pigeon in all stages that are as plain as the most skilled photographer could have produced in a lifetime. We have seen billions of these birds. We have caught over sixteen hundred dozens with nets, and we have shot thousands of them. When a small boy we caught hundreds of them in quail traps; so taking our experience into consideration, we think we ought to be able to tell a flock of Passenger Pigeons today, for our memory is good, even if we are growing old.

Very truly yours, C. W. DICKINSON.

CHAPTER XXXV.

WILD PIGEON HUNTER A KIDNAPPER

Dying Confession Clears Mystery of Forty Years

A KIDNAPPING mystery which had all Northern Tier county residents talking forty years ago, has been solved by a story now related by Reuben Daniels, of Sweden, Pa., who tells how he secured under promise of secrecy during the lifetime of his informant, a death-bed confession from John Nesbit, that he was responsible for the disappearance of little Henry Schall, the then three years old son of Mr. and Mrs. John Schall, of Denton Hill, near Coudersport, Pa.

Daniels learned the story several years ago. Nesbit temporarily improved in health, but unknown to Daniels, died four years ago. When Daniels learned of this, he came to the home of Schall, now living at Bradford, and told his story, a romantic tale which rivals the fabrication of the most imaginative novelist. Circumstances recalled by the father of the kidnapped child and others familiar with the story, help to bear out the facts of Nesbit's confession.

It was on October 17, 1878, that the community of Coudersport was shocked to learn that Henry Schall, a bright, pretty little fellow, was missing

from his home. The kind hearted neighbors searched for days through the wilds which then constituted the greater part of Potter county.

Finally they gave up hope, being convinced that the child had wandered away from home and became a victim of wild animals. Bears and panthers and even wolves were then not uncommon within a short distance of the Schall home.

The only persons who did not give up hope were the father and mother of the missing lad, the latter maintaining up until her death at Bradford a few years ago, that her son would be heard from some time.

The circumstances of Nesbit's confession according to Daniels, are substantially this:

He was approached early in 1878 by a New York man, who had been hunting wild pigeons in the vicinity of the Schall home in June of that year. This man, who was very wealthy, had been attracted by the unusual resemblance of the Schall child to his own son, who had died a short time before. He came to Schall with an offer to adopt the son, give him a good education and make a good place for him in the world. The parent-love was too great and the offer was refused.

The sportsman approached Nesbit, he declared, at Elkland, a point 60 miles from there, offering him \$500 if he would spirit the lad away. Nesbit was tempted as he owed a neighbor \$500 and was unable to pay it, and finally consented to commit the terrible

crime. He declared that he had since seen Schall, then grown to manhood and believing himself to be the son of the New York man, whose fortune he had inherited.

Daniels is searching through his effects to try to find a record of the name Nesbit gave him and Schall is preparing to leave for New York to try to locate his son. Schall corroborates the story of the sportsman insofar as the offer of adoption is concerned. He says that he connected the occurrence with the disappearance of his son, but being poor and unable to pay his expenses to New York at a time when the nearest railroad was forty miles away and travel was a luxury, was unable to follow up the clue.—*Milton, Pa., "Miltonian."*





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