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ROBERT RIDGWAY

WITH A BIBLIOGRAPHY OF HIS PUBLISHED WRITINGS
AND FIFTY ILLUSTRATIONS

By HARRY HARRIS

RARELY does the genius in any field of intellectual endeavor, especially when the achievements of a long life of labor have resulted in world-wide recognition of his authority, enter the ripening years of his life so little-known personally to his public as has Robert Ridgway, now in his seventy-eighth year.

Still encompassed in the aura of self-effacing reserve and silent modesty that has ever characterized his social contacts, comparatively few have been privileged an intimate knowledge of his boundless capacity for friendship, or have been permitted to know firsthand those traits of character that stamp him a fine and rare type of manhood. His studied and inflexible avoidance of any form of personal publicity, extending to his almost sly shirking of the rostrum at all times, together with a self-imposed retirement, will make evident how difficult it has been for the interested public to experience his personal qualities. To the great and ever-increasing body of students who early learn to acknowledge him Dean, the name of Ridgway is at once a monument and a myth.

Owing to these facts, and because ornithological America is now being given the opportunity to express materially its appreciation for this life of service devoted so fruitfully and with such obvious self-sacrifice to the common cause, it seems both fitting and timely that there should be presented a review of at least some of the high lights of his career and personality.

The Cooper Ornithological Club has recently been privileged Mr. Ridgway's confidence in the matter of many unpublished incidents and happenings of his earlier years, and with his greatly appreciated permission to share with our friends these reminiscences, as well as the reproduction of Mr. Ruthven Deane's collection of his portraits, it is hoped that Robert Ridgway the man may be glimpsed more intimately than has heretofore been possible.

In a brief review of his ancestry Mr. Ridgway has enumerated among other facts that his paternal grandfather, Richard Ridgway, was born in Philadelphia in January, 1770. Until his marriage he was a Quaker, as were all the American members of the family up to that time. The first immigrant, also named Richard, had left England with his family as part of William Penn's colony, and had arrived in the Delaware River aboard the "Jacob and Mary" in January, 1679. He came from Wallingford, Berkshire; located first in Burlington, New Jersey, but soon removed to Crewcorne, which is now Falls Township, Bucks County, Pennsylvania, where he occupied himself in farming and cattle raising on 218 acres of land. His second son, also a Richard, who was born here on August 27, 1680, is believed to have been

the first male child of white parents born in what is now the State of Pennsylvania. Richard has been a favorite name in the family, as it occurs in every generation of the line except the present, the last being the youngest brother of Robert Ridgway's father.

The father, David Ridgway, was the sixth child, third son, of Richard and Sarah (Cowell) Ridgway, and was born March 11, 1819, in Harrisburg, Pennsylvania. During his infancy the family emigrated to Mansfield, Ohio, where they resided on a farm until 1840. On leaving Ohio with Chicago as their destination they were strongly advised by a former resident of that city whom they chanced to meet on their arrival at Terre Haute, Indiana, not to go there, Chicago being "nothing but a frog pond", but instead to settle in Mount Carmel, on the Wabash, "the rising city of the West". This advice was seriously considered and followed. At that time owing to the continuous navigable waterway through to New Orleans there was promise of a great future for Mount Carmel. Steamers were making regular trips between the two points, taking down cargoes of pork and corn, and returning with such necessities as sugar, molasses, and rice, but there was no material increase in the commerce and eventually the railroads practically eliminated water transportation.

Arriving in Wabash County the family took up residence on a farm about three and a half miles north of Mount Carmel where the son David remained until his marriage.

Of the mother's ancestry little more is known than that her parents emigrated from Gaithersburg, Maryland, to Mansfield, Ohio, where she and her eight brothers and sisters were born. Her father, Joseph Reed, fought in the War of 1812, was a farmer by occupation, and was the first representative from his district in the Illinois legislature.

The Reed family while living near Mansfield were neighbors of the Ridgways, but had left this region in 1838, two years prior to the departure of the latter family, and had settled on Calhoun Prairie (named for a pioneer relative of the famous John C. Calhoun) some twenty-four miles from the farm in Wabash County, Illinois, later occupied by the Ridgways. Here the parents of Robert Ridgway were married on August 30, 1849.

Abandoning the rural life the young couple took up their residence in Mount Carmel where, in partnership with his older brother William Burr Ridgway, David established himself successfully in the drug business. During the long residence in Mount Carmel ten children, six sons and four daughters, were born to the David Ridgways, and of this extensive progeny Robert was the first-born. Of the ten children only Robert and John, with three sisters, survive.

A flourishing and prosperous business enabled the father to erect the first modern business building in Mount Carmel, a three story brick structure with iron front, in which was opened a pharmacy of imposing size and magnificence. Dire misfortune, however, eventually overtook the family. A too generous nature in freely extending credit, together with failure vigorously to press the collection of accounts overdue, resulted in heavy losses to the store. The new building, for various reasons unprotected at this time by insurance coverage, was destroyed by fire, and on being rebuilt was partially demolished by the tornado of June 4, 1877. The Ridgway home with seven members of the family inside was thrown into complete ruin by the same storm, necessitating the aid of rescuers in extricating the family, none seriously injured, but all more or less badly shaken.

A year or two after these severe reverses David Ridgway moved his family to

Wheatland, Indiana, where he had secured a farm through the release of the remnants of his Mount Carmel property. The parents remained here until 1886 when they were enabled through the generous provision of their frugal and hard working son Robert to return to southern Illinois to a far more comfortable home and more pleasant environment. This material token of his love for his ageing parents, a new house located in Olney on a wooded tract of ten acres, represented in part what Robert had saved from his meager Government salary of a few hundred dollars a year. A photograph of this place has fortunately been made available for reproduction here.

Neither of the parents lived to enjoy long the comforts of their new home, the mother passing from this life only three months later, on December 14, 1886, and



Fig. 2. PARENTS OF ROBERT RIDGWAY ON THE FARM NEAR WHEATLAND, INDIANA. THE THIRD SISTER, LIDA (MRS. O. C. PALMATIER), SEATED AT RIGHT, IS NOW MISTRESS OF "LARCHMOUND".

the father on January 4, 1888. They rest side by side in Haven Hill Cemetery, Olney. The life-long attachment this region had for Robert Ridgway, and the constant longing that resulted in the selection of Olney as his own permanent home, point one of his predominant characteristics and will later be elucidated in full.

Heredity, so often a marked and obvious factor in guiding the destinies of scientific workers, contributed in no small measure to the sealing of Robert Ridgway's fate. Both parents were enthusiastic nature lovers, and with no thought of the son choosing natural science as a means of livelihood, or, indeed, of it being possible for any one to earn a living in this field, unconsciously assisted in laying the foundation for his life's work.

Robert was born on July 2, 1850. If such a thing as predestination is ever operative in this mortal existence Robert Ridgway was marked from the very be-

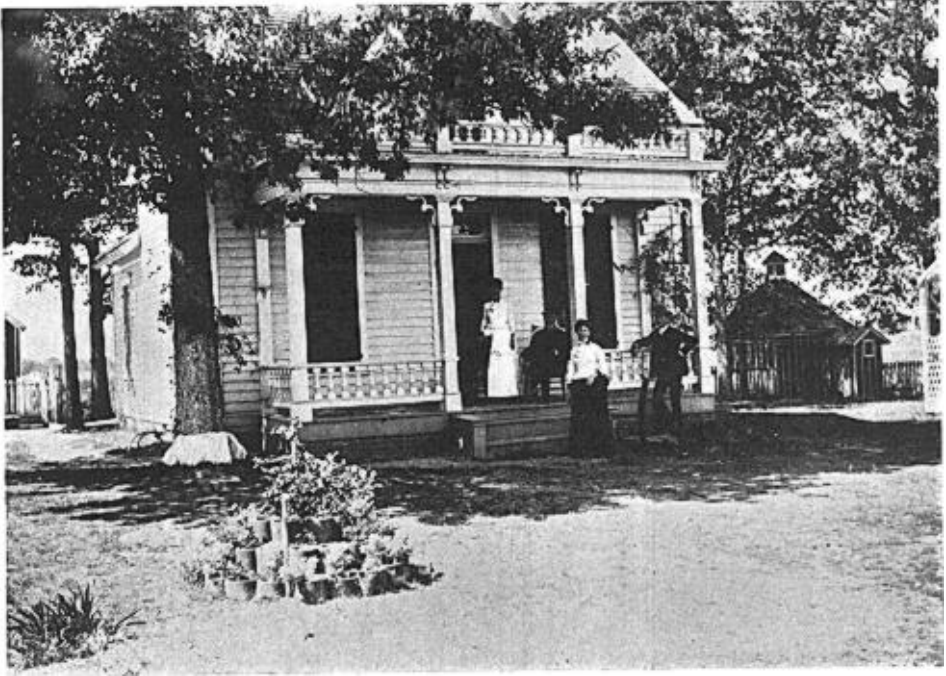


Fig. 3. HOME IN OLNEY, ILLINOIS, PRESENTED TO HIS PARENTS BY ROBERT RIDGWAY. THE FATHER, DAVID RIDGWAY, IS SHOWN SEATED. PHOTOGRAPHED IN 1887.

ginning for a life dedicated to ornithological and botanical research. So early in his career as the early eighteen-fifties when but three or four years of age he gave expression in no uncertain line to a real and native aptitude for delineating bird form, indicating at that tender age the possession of a discriminating and sure eye for the salient and characteristic points of avian structure. Several of these childish pencillings had been preserved by the appreciative uncle, William, who doubtless sensed in the youthful artist the presence of unusual capacity in this field, and who fortunately made it possible for equally appreciative groups of ornithological workers recently to view this historic beginning.

Privileged to gaze in infancy and during youth on a world of primeval forest as yet lightly touched by the devastating axe it is small wonder that an inherited love for wild nature should have found early expression in this wide-awake and intensive youth. The boyish enthusiasms were fed and nourished by an indulgent father whose own love of the wilds impelled him afield at every opportunity, with young Robert his willing companion and pupil. An unusual knowledge of birds imparted to the son during these excursions stimulated in the young enthusiast an early and eager desire to own his own gun, that he might handle and know more intimately the forms of the elusive wild creatures.

The flavor of Mr. Ridgway's own words in this connection can not fail to be of the most intriguing interest. Recently recalling boyhood experiences he says: "Almost the only recreation of my father was hunting, or on Sundays, when he never hunted, taking walks into the country, especially through the woods, on both of which occasions I usually accompanied him. It was thus that the foundation of my nature love was laid, for my father was exceptionally well informed on the subject of wild

life in general, though he had his own names for many birds, trees, and other natural objects. Thus the Towhee he called 'Ground Robin'; the Wood Thrush was his 'Bell Bird'; Gnatcatcher, 'Blue Wren'; Yellow-breasted Chat, 'Yellow Mocking-bird'; etc. It is hardly necessary for me to say that I not only learned much on these outings with Father, but looked forward to them eagerly and always thoroughly enjoyed them.

"In those days Wild Turkeys, Passenger Pigeons, Ducks, and in fact game of all kinds were abundant (only deer were becoming scarce), and rarely indeed was our hunting trip unsuccessful. My father hunted with a long-barreled Kentucky squirrel-rifle (bullets, 140 to the pound) with a hair trigger, I with a shotgun of which more later. March and early April was 'gobbling time' during which we made several hunting trips together each year. One of these—the first, I believe—I have particular reason to remember. There had been rumors of a panther having been seen in the Hanging Rock Hills about three miles from the town, and we boys were of course afraid to visit that region by ourselves. Father and I started for the hills—a great place for Wild Turkeys—about three A. M. Part of our route led along a railway embankment that had been constructed a few years before, but the work being abandoned the fill was used only by pedestrians living in that direction. On each side of the embankment was a solid wall of virgin forest extending continuously for a mile or more. It was still dark as we were following the trail along the embankment. I was about ten feet behind my father when a blood-curdling scream from the woods on one side nearly paralyzed me with fear, though sufficient strength was left for me to reach my father's coat-tails in one jump. I had never before heard the wailing screech of the Barred Owl, and was sure the panther was coming to attack us.

"On another occasion we had just reached the hills close to Hanging Rock and stopped to listen. Very soon we heard a Turkey gobble. My father started at once in the direction whence the sound came. I waited wondering why he did not shoot, because I knew he had been gone long enough to cover the distance several times over. Finally he returned and told me why he did not fire. I remember the date, because it was April 1. It seems that near where the gobbling came from he saw a large oak tree with several big, dark-colored birds roosting among the branches. For some reason his suspicions were aroused, and as he hesitated it developed that the birds



Fig. 4. WABASH RIVER AT HANGING ROCK, NEAR MOUNT CARMEL, ILLINOIS, IN THE LATE EIGHTIES.

were Turkey Buzzards, and that the gobbler had already flown to the ground from his roost, had seen my father first and run away before he could get a shot.

"On the Hanging Rock Hills a single small clearing had been made and planted in corn. One day in midwinter a farmer who traded at our store reported that Wild Turkeys were feeding on the corn in that field. A few days later there came a fine tracking snow, so my father proposed that we go there and try for Turkey. On reaching the field we came across the tracks of a flock of the big birds that had just entered to feed; but they must have seen or heard us, for they did not linger but passed directly through and out the opposite side. We followed their tracks and seeing the direction they were going and heading them off saw about fifteen Turkeys crossing a ravine single file, a splendid big gobbler leading. Aiming at the gobbler my father had just got a bead on him and was about to pull the trigger when his elbow touched a branch and toppled a handful of snow on the barrel of the rifle. Before he could brush this off the birds had crossed the ravine and disappeared.

"In the catalogue published by the Cooper Ornithological Club of its 'First Exhibition of American Bird Art' there has already been given an account of how, having been unable to extricate the ramrod from my gun, I fired it at a rare Warbler, and how both ramrod and Warbler escaped. The frequency with which the ramrod would stick after pushing down the wad was a great, and sometimes costly, annoyance. Usually on such occasions the gun was pointed upward at a considerable angle over an open field and fired, when the rod could be recovered intact. Recollections of these difficulties bring to mind many incidents connected with my early shooting experience. There were then no breech-loading guns in our community. My first shooting was with a cheap single-barrel shotgun belonging to my father. I was out in the woods one afternoon with this gun when I heard a Barred Owl hoot some distance off. Being able to imitate perfectly the notes of several species, thus luring them within range, I answered this owl. Each time he hooted he was nearer, and presently I saw him sail overhead and alight near the top of a tall Pin Oak followed by half a dozen or more frenzied Blue Jays. Aiming at him I pulled the trigger. To my disgust the cap snapped and the Owl flew off accompanied by most of the Blue Jays. I had barely removed the stock from my shoulder when the gun went off, having hung fire, and down came a Blue Jay, the only one remaining in the tree.

"I mentioned my own gun. This was a shotgun made by my father expressly for me. A steamboat named the 'Kate Sarchet' had sunk several years before in the Wabash River at Mount Carmel, and during a season of exceptionally low water her cargo was salvaged. Among the various articles recovered was a rifle, of course badly rusted and with the wooden parts much decayed. This my father bought for a fraction of a dollar. He took the barrel to the local gunsmith who removed the rust, shortened the barrel and bored it out smooth. New locks were bought, and my father himself shaped and finished a new stock out of a piece of wild cherry. He had a breech-piece and trigger-guard cast in brass at the local foundry, and when finished it made a very handsome and fairly effective shotgun. He then made for me a powder-horn and a leather shot-belt equipped with horn mouth-piece, wooden stopper, and shoulder strap. With these filled, a pocket stuffed with tow or paper for wads, and in another pocket a box of G. D. percussion caps (which I recall having forgotten on one or two occasions) I was fully outfitted for hunting. My first exploit with this gun was to kill several squirrels, soon after which I bagged one day three Pileated Woodpeckers. [The mutilated drawing reproduced here was made



Fig. 5. WASH DRAWING OF PILEATED WOODPECKER DONE BY ROBERT RIDGWAY IN 1864, WHEN HE WAS FOURTEEN YEARS OF AGE.

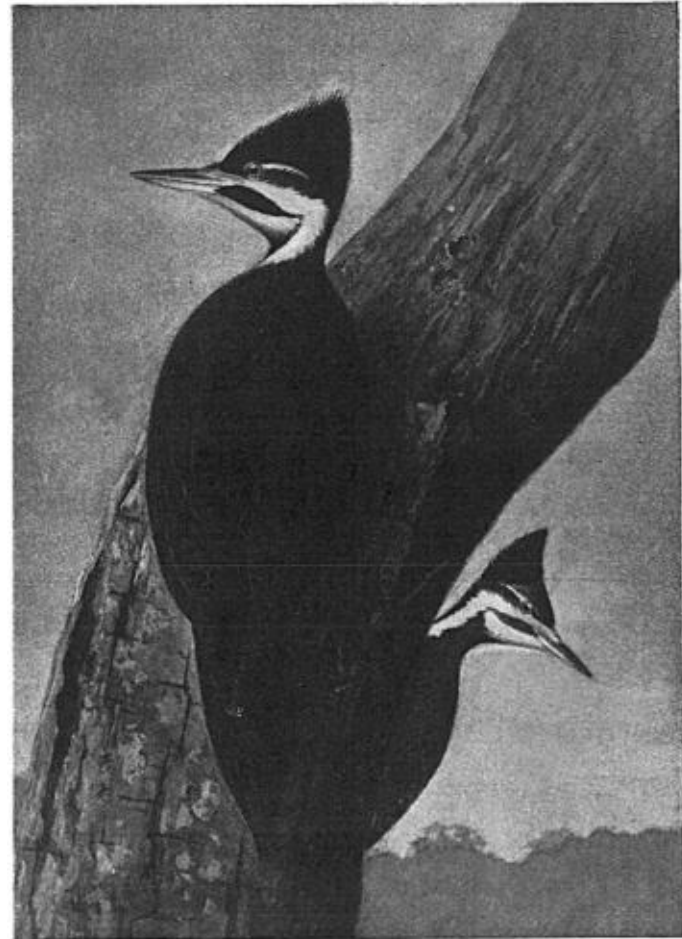


Fig. 6. FINISHED WATERCOLOR DRAWING OF PILEATED WOODPECKER MADE BY MR. RIDGWAY IN THE EARLY EIGHTIES.

at the time from a specimen shot with the first charge of white gunpowder to be referred to later.]

"In the foregoing I have alluded to the abundance of Wild Pigeons. I can well remember the enormous flights of these birds and recall one that extended completely across the sky from horizon to horizon, the noise of their wings sounding like distant thunder. They were so abundant and tame that at times, when without a gun, I tried to kill them by throwing clubs or sticks at them". In this connection the present writer has recently been told by John Ridgway that his brother Robert was in his younger years actually a "sharpshooter" with such missiles, often taking specimens with no other weapon than a hard clod or a small piece of brick.

The boy Robert prior to his tenth year was industriously collecting and drawing birds, nests and eggs, as well as leaves of trees and other natural objects, with results far in advance of his age, and with a growing passion for the study that brooked no interference or discouragement. Very early in his teens, proud in the ownership of the new gun, the serious problems of securing ammunition with which to collect his models, and watercolor paints with which to color his drawings of them were solved by his own inventive industry. He manufactured gunpowder himself in his father's drug store, where he also ground the pigments and mixed his own watercolors! His utter lack of instruction in drawing, and his entire unfamiliarity with the work of others in this field in no way handicapped the progress of this budding genius. He had heard of the work done by the fathers of American ornithology, Wilson, Audubon, Nuttall, and Bonaparte, but did not know even the name of a living naturalist, and naively supposed that he was the only worker in birds in America, indeed perhaps in the whole world! He had no idea of how to preserve a bird other than in a colored drawing, and he knew nothing of the technique of making skins until reaching Washington in 1867. Thus early was the foundation laid for his later epochal results in the standardization of colors and their names.

During this period when the spark of interest in natural objects was slowly growing into a conflagration of enthusiasm, the lad was often, with grievous consequences to himself, impelled to expediency in order to gain desired ends. Finding it extremely irksome to endure the confinement of the school-room, especially in spring and early summer when joyous bird-song was ringing from every quarter of this favored region, he was at times driven to entire disregard of pedagogic authority and discipline. Truancy was not infrequently practiced, followed in nearly every instance by the well known and time honored form of chastisement. Ornithologists, more than most of the other favored sons of men, can fully understand and sympathize with the youthful complex resulting in such rebellion at this particular season. Referring to the wayward tendencies of this period of his youth Mr. Ridgway says: "Sometimes, rather often in fact, my love for natural history led me to displease my father, for in order to get off to the woods I would risk almost anything, even to the extent of actual disobedience. I remember especially one Saturday when my eagerness to go hunting led me to attempt deception, though my scheme failed to work out as I had hoped. We owned two lots of two acres each at the edge of town. These were each year planted in corn, and it was part of my routine to cultivate these two fields. One field had been 'laid by' and I had commenced ploughing the other (with a one-horse plough). In those days corn was planted in check-rows instead of being drilled as is now done; I had ploughed twice between the long rows and had started with the cross-rows at the end fronting the street, but after getting a little distance back realized that if I went twice between all the rows I could not possibly complete the job in time to go hunting that afternoon. To save time I therefore ran

the plough through only once and reached the rear end in time to go hunting. Unfortunately my father went on a tour of inspection next morning with the result that the trick was discovered and I was very justly punished.

"In this connection I will add that until my younger brothers grew large enough to succeed me I had to devote a large part of each precious Saturday to the task of cutting enough stove-wood to last over Sunday; for in those days the Sabbath was so strictly observed so far as work was concerned that if a man was caught splitting a little kindling on that day he was talked about and almost ostracized. (It is a fact that I was not allowed to whistle on Sunday!) To build up a pile of sawed (or chopped) and split wood large enough to pass inspection, and still have time enough to go hunting, was no easy matter but was always accomplished, for unless it were done there was no hope of a trip to the woods until the following Saturday.

"My mother, while equally interested with my father in everything pertaining to outdoor life, and like him more fond of the country than of the town, differed from him in temperament. Father rarely chastised us children unless aggravated beyond all endurance; but with Mother firmness was a cardinal principle. Her invincible rule was to keep her word, and we knew that punishment was certain if we disobeyed her. However, while firm in her discipline she was a most affectionate mother, and indulgent to a degree. I can never forget an instance of self-sacrifice on her part in order to please me. We were visiting in Olney, and one day I accompanied her on a shopping tour. We entered a store where books were sold in addition to the regular line of goods. My eye caught the title of a sumptuous leather-bound, gilt-lettered volume which I asked the proprietor to let me examine. It was a thick royal octavo of 680 pages, very profusely illustrated, of which the first 354 pages were devoted to birds. The embossed cover-title was: 'The Animal Kingdom Illustrated'. The title-page is now gone, but I remember well the name of the author, which was Samuel G. Goodrich. The date of publication was somewhere around 1859 or very early in the 'sixties', yet it really was a very handsomely gotten up book—it would be even for the present time; in fact I had never imagined anything so 'magnificent'. I was so fascinated with it that I timidly expressed a wish to own it, not at all expecting the possibility of such a thing, as the price seemed to me prohibitive (somewhere between eight and twelve dollars); but Mother with sympathetic understanding opened her slim purse and handed over the price, and thus the coveted book became mine, but I am very sure at the sacrifice of practically all her 'spending money'. This book with some of the front pages gone and many of the woodcuts disfigured by my efforts to color them is still one of my prized possessions. (It, like other relics of my boyhood days, went through the tornado of 1877, hence the mutilation.)

"Before Goodrich's 'Animal Kingdom' came into my possession the only books that dealt, even in part, with natural history subjects that I had access to were an edition of Goldsmith's 'Animated Nature' (published by J. Grigg, Philadelphia, in 1830), belonging to Uncle William, one volume of which was devoted to birds alone; and a History of the United States of equally early date, in which about 34 pages dealt with birds. The first 160 pages of this book are now missing (it also having gone through the tornado), and I am therefore unable to cite the exact title, name of author, or date of publication. It was from this book that I first learned of Audubon, Wilson, Bonaparte, and Nuttall.

"The first technical work on birds by real ornithologists that came into my possession was the ninth volume of the Pacific Railway reports by Baird, Cassin, and Lawrence, published by the Government in 1858, though I think this was not acquired until I went to Washington in 1867. In 1864 or 1865, however, Professor Baird

sent me a copy of his 'Catalogue of North American Birds' (1859), from which I learned the approved names of our birds, though having no authoritative descriptive book I had in many instances to guess at the bird to which certain names applied, and thereby made many mistakes of identification.



Fig. 7. ROBERT RIDGWAY IN DRUMMER-BOY UNIFORM DURING CIVIL WAR RECRUITING SERVICE.

"My first knowledge of technical descriptive terms was derived from Ruschenberger's 'Lexicon of Technical Terms used in Natural History' (title cited from memory) of which I had somehow learned and bought from the publisher (J. B. Lippincott Company, Philadelphia), the price being I think one dollar. While attending

school I had studied Latin to some extent, and this of course helped me in the use of scientific terminology."

Recalling another phase of his boyhood Mr. Ridgway continues: "Two or three years before the outbreak of the Civil War two cousins of mine, one about my own age, the other two years older, and myself organized a 'band.' The older cousin played the fife, his brother the bass drum, and I the snare drum. After considerable practice we acquired some proficiency, at least our 'music' seemed to be enjoyed by the townspeople. The great occasions of our career as musicians were Christmas and New Year's mornings. Then we were up before daylight, and when fully tuned up we started on our round of the town serenading residents previously selected by us; these, it is hardly necessary to say, being those we could safely count on to respond by handing out refreshments.

"The whole country was of course excited about the war, and recruiting officers were active in every community. These came to our town several times and whenever they appeared enthusiasm was at high pitch. Every precinct was visited, hacks, stage-coaches, and all sorts of vehicles being pressed into service to carry the orators, leading men, and others from town to the country churches or schoolhouses where the meetings were held. We boys constituted the only band available and were always taken along. Arriving at the place of meeting we would find practically the entire population of the region assembled. When the meeting was called to order the several orators delivered their fiery orations, arousing the patriotism and fighting spirit of the entire audience. Then the recruiting officer would announce that all who wished to enlist in the service of their country would please fall in behind the music. This was a proud moment for us boys and we did our level best; marching out the front door to some stirring tune as 'Yankee Doodle', or 'Two Little Drummers and One Big Fifer', then along the roadway for an eighth of a mile or so and back again, the band followed by a line of sometimes fifty to a hundred or more men who would then enter the building and one by one sign the enlistment papers.

"At that time the older cousin, only thirteen years old, enlisted as a fifer, but soon after entering the army voluntarily exchanged his fife for a musket. He served throughout the war and was wounded at the battle of Shiloh, or Pittsburgh Landing. I tried to enlist, but was considered too young."

One of the few articles in the Ridgway home that passed without injury through the disastrous cyclone of 1877 was an admirable ambrotype likeness of the drummer-boy in his proud uniform. This family relic had been treasured through the years by the oldest sister, who has recently died. It is still in the original frame of river shells mounted in putty, the inner border of which is indicated in the slightly enlarged reproduction given here. This reproduction owes its remarkably clear definition to the expert retouching of Mr. John L. Ridgway, who, however, has kept clear of the face in order not to alter the likeness. Mr. Ridgway with characteristic succinctness has described the uniform as follows: "Blouse of dark blue with bright red front bordered by brass buttons; pantaloons gray with black stripes down side seams; service cap of dark blue". (No mere subspecific description, this!)

When fourteen years of age, in 1864, nursing great plans and ambitions, the youth made his first contact with science—indeed, with the outside world. In a letter to *The Olney Times* of June 4, 1925, written by Mr. Ridgway to correct certain misinformation innocently published in a previous issue, he says in part: "My acquaintance with Professor Baird was through correspondence and came about in this way: There were two boys in Mount Carmel (Lucien and Granville Turner, the latter of whom recently died in Tacoma, Washington [the former being well known to orni-

thology through his work in Alaska and Ungava]), who were much interested in birds. We were therefore much together, especially on trips to the woods and fields. We had observed during the winter considerable numbers of a bird which on account of the beautiful plumage of the male greatly interested us, and we were anxious to know its name. We were discussing its name at the home of the two boys when their mother suggested that I write to the commissioner of patents, in Washington, and handed me a yellow envelope with the commissioner's address printed thereon. I wrote him, describing the bird and its habits, and enclosing a colored drawing representing both male and female perched on a tall weed the seed of which constituted the principal food of the species during the winter. (This plant was the common 'horse weed', *Ambrosia trifida*.)

"The commissioner of patents, who was not an ornithologist and therefore did not 'know a hawk from a handsaw', turned the letter over to Professor Baird who promptly answered it, giving me the name of the bird, the Purple Finch, *Carpodacus purpureus*, and otherwise giving me great encouragement. [This letter is transcribed in full in *The Auk*, vol. v, 1888, p. 12, also in the Audubon Bulletin, Chicago, winter issue, 1917-18, pp. 5-6.] Thus began a correspondence through which I first learned the correct names of many of our birds; for whenever I found a bird that I did not know I made a colored drawing of it, numbered the drawing, and enclosed it with my letter. I still possess the first letter received from Prof. Baird, the picture of the Purple Finch, and many other drawings sent to Prof. Baird, stamped with the dates on which they were received."

The immensely important bearing this contact had on Mr. Ridgway's life, as well as on the development of ornithological science in America, is of course too generally known to require comment. It was inevitable that so promising and determined a student should find abundant opportunity during the formative period of the science on this side of the Atlantic for the full outlet of his energy and talents. In less than three years after addressing this first childish inquiry to Washington, when not yet seventeen years of age, he was definitely launched on his long and invaluable service to science.

On his return home from spending the day of March 6, 1867, in the field, with a hard-earned set of two eggs of the Red-tailed Hawk (one of which, incidentally, is figured by his brother John as number 5 on plate 6 in the first volume of Bendire's "Life Histories") there was awaiting him a letter that sealed his fate and pointed his future course in certain terms. The letter reads as follows, rendered verbatim:

12848

Washington Feb. 27, 1867.

My Dear Robert

I received your letter of the 29th Jan. with the eggs, and only today had time to examine them with your letter. Your last conclusion as to the smallest ones being all *Spizella pusilla* is quite correct.

In the season I would like you to get for me as many sets of eggs of *Prothonotaria*, *Mniotilta*, and *Helminthophaga* as you can.

The Solitary tatter has the legs greenish; as you will see from the Bird book. The eggs are very desirable.

What are you engaged in at present, and what are your plans & intentions for the future? How would you like to come on to Washington and spend a few months at the Smithsonian helping me, if we pay your travelling and other expenses. It is possible, though not certain, that arrangements now contemplated may make it possible to carry out such a plan. Or how would you like to go to the Rocky Mts. and California for a year or two as collector of specimens. Have you learned to skin birds quickly and well, yet? Let me know at once as to latter point as the chance may occur very

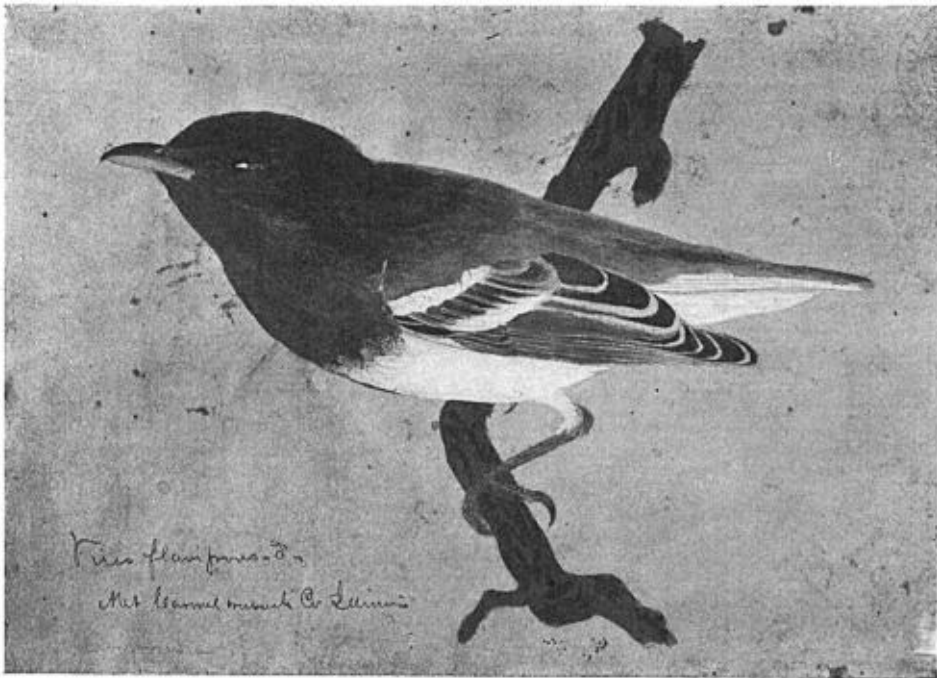


Fig. 8. ONE OF HIS EARLY WATERCOLOR DRAWINGS SENT BY ROBERT RIDGWAY TO PROF. BAIRD FOR IDENTIFICATION. STAMPED DATE OF RECEIPT IS JANUARY 13, 1867.

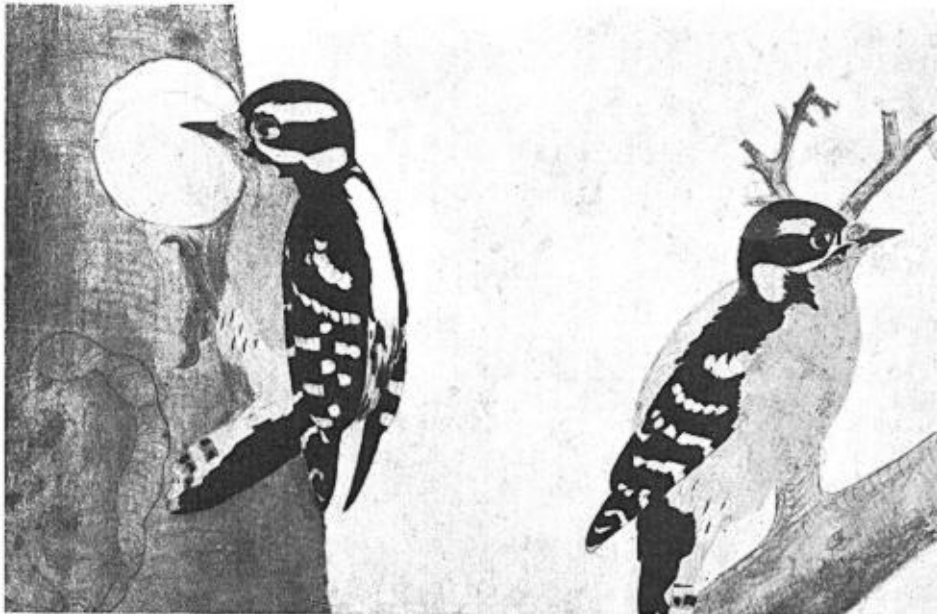


Fig. 9. ONE OF THE DRAWINGS MADE FOR LUCIEN TURNER IN 1864 FOR WHICH ROBERT RIDGWAY RECEIVED FIFTEEN CENTS. GREATLY REDUCED.

soon to go in a few weeks. There would probably be a salary of about \$50.00 per month and all expenses necessary.

Truly yrs.

Spencer F. Baird.

Robt. Ridgway
Mt. Carmel,
Ill.

If you were a good photographer I could certainly I think promise the place with the expedition. Are you strong: and is your health good?

Pressure brought to bear to the end of obtaining the necessary parental consent for the complete severing of home ties at this time resulted in arrangements being hurriedly made to take full advantage of the momentous opportunity offered, and there was soon to begin the long period of over forty-five years of home-sickness which will later be referred to by Mr. Ridgway himself. The following three letters have an important bearing on this turning point in his life.

13230

Washington. March 30, 1867.

My Dear Robert

I have three unanswered letters of yours before me (March 6, 7, & 19) and would have replied sooner but that I waited the culmination of the movements in reference to the Scientific expedition of which I wrote you. I now enclose the final result, in the hope of an offer from Mr. King of the place of Zoologist.

The object of the expedition is to make a thorough exploration of the Geography, Geology, and Natural History of the country near the 40th parallel of latitude from the Sierra Nevada region of California to the eastern side of the Rocky Mountains of Colorado. The Survey will last probably three years and be prosecuted with unexampled advantage for a thorough exploration of the country in every direction. It passes through the grandest region of the United States; the alpine district of California, the country of the grand precipices and water falls, and of the lofty mountain peaks 14-16,000 feet high. It embraces the rich mining region of Nevada (Comstock lode), and will explore an alpine region in Utah never before visited. It offers more promise of novelty in Natural History than any other part of North America; while in ornithology it will afford a chance of completing the information respecting the habits of the western species.

There are no dangers whatever from hostile Indians; the entire line being entirely west of the disturbed district; and the first year's labor will be on the eastern slope of the Sierra Nevada of California where the whites far exceed the Indians in numbers.

The party will probably leave New York for San Francisco, via Panama, early in May, perhaps the 1st, and if you go you had better come on here a week or two earlier, so as to get fully posted in your work. Your salary would I suppose begin from the date of your acceptance of the place, although I am not certain of this. You would have to pay your own expenses to Washington & New York, I presume.

You need not have any apprehension of your fitness to discharge the duties; you know more than enough to begin, and you will soon grow up to all the possible requirements. Your duties will be to collect fully in all branches of Zoology, and take notes in regard to the habits of the animals seen. The expedition will not be an exhausting one in any respect, and you could readily meet all drafts on your health and strength. The country is the finest imaginable for air and scenery; game of all kinds abundant throughout the year. The work will be so much in the settlements and so near the railroad that all collections can be readily sent in.

I duly received the albino robin and the two hawk eggs which are very acceptable indeed. The eggs can hardly be aught else than *B. Borealis*, which sometimes lays plain eggs. The bird varies much in its markings, and if the tail was decidedly *red* it fixes the species. The whole belly may be pure white or pure black, it does not affect the species.

The albino robin was very neatly prepared; the only defect being in a

want of finish about the head where the eyes and cheeks were not properly stuffed out. When you come on if you accept the place we will soon teach you all the niceties of the art.

It will be well for you to come as soon as you can so as to spend as much time here as possible. There will be something to do in getting together all the necessary outfit.

Let me hear as soon as you can; as it will be necessary to make other arrangements if you do not go. I think however you will never regret the acceptance of the offer.

Sincerely yours,

S. F. Baird.

Robert Ridgway,
Mt. Carmel,
Ill.

Office of "Geological Survey of
Fortieth Parallel"
Newport, R. I. March 28, 1867.

Robert Ridgway Esq.

Dear Sir;

Having learned from Professor Baird that you desire to accompany this Survey in the western campaigns, I take pleasure in offering you the position of Zoologist.

The pay authorized by the Secretary of War is fifty dollars per month in U. S. currency with transportation and subsistence in the field. With the exception of wearing apparel, and the hotel expenses during the first ten or fifteen days in California, your necessities will be provided for by the Survey, and the pay will be nearly all clear. Requesting a reply at your earliest convenience

I am very respectfully yours

Clarence King
U. S. Geologist.

13365

Washington. April 11, '67.

Dear Robert;

I am glad you like the idea of going west, and trust and believe you will not regret it.

Let me know when you will leave for Washington and I will engage a room for your accommodation near the S. I.

I would like any of the birds you mention, especially the hawk no. 3, and the *Hylotomus*.

Sincerely yrs.

S. F. Baird.

R. Ridgway

Mt. Carmel, Ill.

Referring to this important milestone in his career Mr. Ridgway says: "On returning home greatly elated over the success of my trip I found awaiting me a letter from Professor Baird in which he asked me if I would go to California as zoologist to the United States Geographical Exploration of the Fortieth Parallel. How I survived this additional thrill I do not know; I only remember that the consent of my parents was, after some hesitation, obtained and the offer was accepted. It took some little time to make preparations, but late in April (about the 18th I think) my parents [together with the infant brother John and a sister] drove me and my trunk to Olney (there being no railroad through Mount Carmel), where for the first time in my life I boarded a train, and thus started my journey to Washington. In those days the engines burned only wood, and frequent stops were made to refill the tender

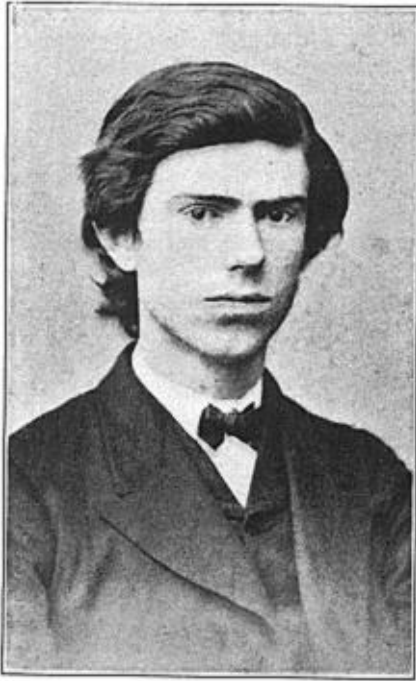


Fig. 10. AT SEVENTEEN IN 1867.

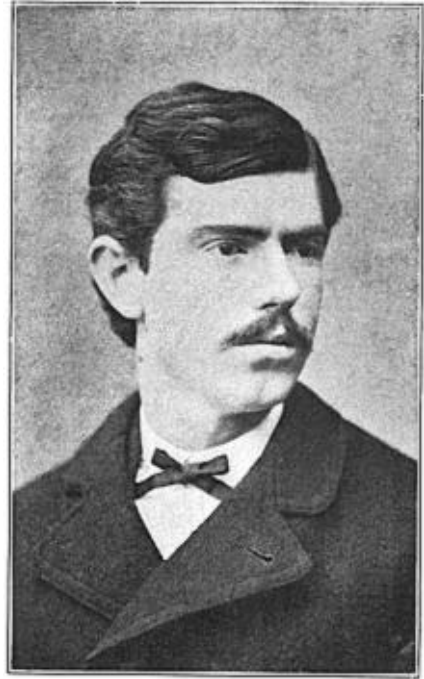


Fig. 11. AT NINETEEN, JANUARY 16, 1870.

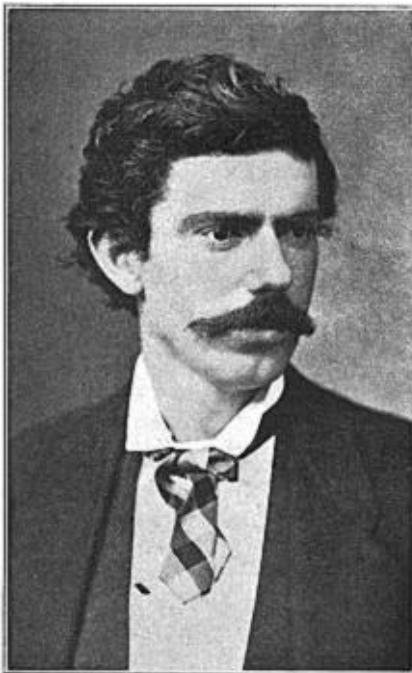


Fig. 12. AT TWENTY-TWO, DECEMBER 31, 1872.

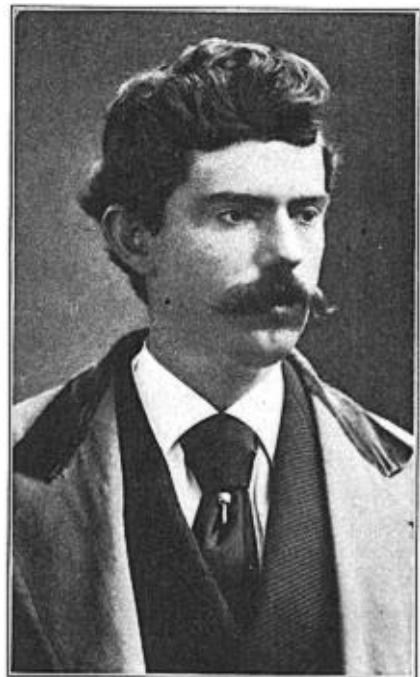


Fig. 13. AT TWENTY-THREE, MARCH 5, 1874.

EARLY PORTRAITS OF ROBERT RIDGWAY, FROM THE RUTHVEN DEANE COLLECTION.
[20]

with cord wood from long ricks piled along the edge of the primitive forests which then occupied much of the area along the route.

"Arrived at Washington I spent about two weeks at the Smithsonian Institution familiarizing myself with western birds, and learning to make a bird 'skin'.

"I should add that from Olney as far as Washington Junction I was put in care of Mr. David Scott, a merchant of Olney, who was going to Baltimore to purchase goods for his stock. At the place named Mr. Scott continued on to Baltimore, first putting me aboard the train for Washington.

"Early in May I proceeded (alone) to New York City where I joined the party I was to accompany, at French's Hotel, there meeting for the first time the genial men who were to be my companions in the wilderness during the next two years.

"On the 10th (I think) of May we embarked on the Pacific mail steamer 'Henry Chauncy' for Aspinwall (now Colón), Panama. Crossing the Isthmus we took another steamer, the 'Constitution', at Panama and proceeded to San Francisco, arriving there early in June. (It may be interesting to note that in those days all ocean steamers were 'side-wheelers'.)

"Remaining only two or three days in San Francisco we proceeded by river steamer to Sacramento where we outfitted and established our first camp. Our party was a large one, consisting of some fifty or sixty men, augmented after we had crossed over into Nevada by a company of U. S. regular cavalry.

"From Sacramento to Salt Lake City and as far eastward as the Uintah Mountains the journey was made on horseback, frequent camps being established along the way in order to enable the topographers and geologists to explore the country. It was during these frequent halts of from two weeks to three months duration that the opportunity for collecting specimens of natural history was most favorable. At the end of the second season in the field the party proceeded to Washington to work up the results achieved.

"The Union Pacific Railway had then (fall of 1868) been completed as far westward as Green River, Wyoming, about 170 miles (by wagon road) from Salt Lake City, and that part of the return journey we covered by stage coach. In May, 1869, the party returned to Salt Lake City and employed the summer in exploration of the Wahsatch and Uintah Mountains. (The writer left Chicago for Salt Lake City on the very day the last spike connecting the Union Pacific with the Central Pacific was driven at Ogden, Utah.)"

The great and rapid strides made by this raw country boy in the science that had claimed him for its own from the very beginning of his life are graphically paralleled by the changes in his personal appearance, and are reflected in the group of early portraits reproduced here through the courtesy of Mr. Ruthven Deane. The first of these was made when he arrived in Washington in 1867, fresh from his country home. The others in this group, made by the same photographer, represent successive lapses of only about two years each, but mark the passage of most important milestones in his scientific and literary advance. A few months before her recent death, and while she was successfully nursing her husband through a serious illness that threatened development into the dreaded pneumonia, Mrs. Ridgway very graciously expressed her wifely pride in the handsome appearance of her beloved Robert, in a greatly treasured letter to the writer. Mr. John L. Ridgway, who idolizes his brother, has often told the writer that Robert was very much of a dandy in those Washington years, and was ever careful in his grooming. The reader cannot fail to agree that the series of portraits affords proof that these appraisals are not merely biased by affection, and shows as well a face of fine and strong character.

The complete itinerary and results of the youthful Ridgway's ornithological survey of the region covered by the Fortieth Parallel Exploration constitute his well known and important report published by the Government in 1877. The energetic and thorough quality of his work in the field was naturally a reflection of his unbounded enthusiasm and appreciation for his opportunity, but the vigor and scope of its treatment in his text necessitated the employment of several phases of scientific scholarship that would do credit to a much older and more experienced student. The report will stand for all time a stimulating document for study, and a most important reference source. An interesting "association copy" of this book in the writer's library was inscribed by the author to Alfred Russel Wallace, Esq., on February 26, 1878. It passed later into the hands of Canon Tristram who after having it newly bound in half morocco inserted his armorial bookplate and signature.

Part of the introduction constitutes necessarily succinct narratives of the numerous field trips, and many an interesting and thrilling experience in the Indian-infested wilderness had of course to be omitted. Among these exciting and heretofore unpublished stories told by Mr. Ridgway in recalling this exploration are the following:

"During the years when the Fortieth Parallel Survey was in the field there was, or at least was supposed to be, more or less danger of the party coming in contact with hostile Indians. Consequently a company of United States regular cavalry was detailed by the War Department to accompany us. The company joined the party at Truckee Meadows (Glendale), coming, if I remember correctly, from Stockton, California. This 'escort' was of use chiefly in looking after the animals of our outfit. As to protection from Indians they caused the only trouble we had with the latter during the three years they were with us.

"During the latter part of May, 1868, a portion of the survey party to which I was attached was engaged in field work on the Piute Reservation near the mouth of the Truckee River. When the geologists and topographers were through with their work the chief of the Expedition (Clarence King) kindly allowed me to remain a week or two longer in order to take advantage of the nesting season. Aside from myself the only white men on the reservation at that time were Nugent, the agent, and Tom Medbury, the reservation store keeper. Later a man from Washoe came to take back some oxen that had been wintering on the reservation, and it was while he was with us that the following incident occurred.

"Medbury had been telling me of a sandbar a few miles up the river where Pelicans were to be found, and one afternoon he suggested that we go there in a skiff. We had not yet reached the spot when our attention was attracted by yelling on the right bank of the river, the side opposite that on which the reservation was situated. Looking in the direction of the noise we saw three Indians riding full speed toward us, each beckoning for us to come ashore. They reached the bank as soon as we, and no time was lost in explaining the trouble, which was that the 'wild Injuns' had made a raid on the reservation and were going to kill everybody along the river. The three proved to be Natchez, the chief, Sarah Winnemucca his sister, and a 'buck'. They were so excited they could hardly talk and told us to hurry back to the reservation house and prepare for a fight. On reaching the house we found great excitement there, all the males of the reservation present, mounted and ready to receive the enemy, the women and children having been hidden. The agent had just had his best horse caught and saddled, and mounting at once started on a dead run for Fort Churchill on the Carson River about sixty miles distant. In the meantime we made preparations to protect ourselves, and the Indians dispersed to take strategic positions. It was three

days before the soldiers came, during which time we scarcely dared to step outside the house, a substantial log building, though no Indian was seen during the entire time. The 'wild Injuns' threatening the attack were a band of outlaws from several tribes who had congregated in the Pitt River country, and had sworn vengeance on the reservation people for the killing of one of their spies the previous winter. They had departed taking with them practically all the stock on the reservation except the ponies being ridden by the defenders. The raiding party was a large one, and we doubtless would have been wiped out had not their plan for a surprise been divulged by the escape of a reservation Indian whom they had captured with intent to kill, and to whom they had fortunately divulged their plan, before he escaped and gave the alarm. There was no conflict between the reservation Indians and the raiders, but this was by no means because the former were afraid to fight, their bravery having been proven at the fight at Big Bend, when, six years before, Ormsby's white raiders were massacred in 1861, only one man of the one hundred whites surviving. It was in fact Natchez himself who killed Major Ormsby.

"We had another Indian scare during the summer of 1868 when our main camp was at the base of the Ruby Mountains, northeastern Nevada, where we remained from July 12 to September 2. Our orders were to break camp and proceed to Thousand Spring Valley and remain there until joined by the several field parties. En route we stopped at Camp Halleck for supplies, and while there the officers told us to keep a sharp lookout, as any Indians we might meet on the way were sure to be hostile ones, unless we should happen to meet Captain Frank's band of Shoshones who might be returning about that time from a trading trip to Fort Bridger. It was on the afternoon of the last day of our march that we had our 'thrill'. I had tired of the saddle and was seated beside the driver with my horse tied behind the wagon. The commander of the party, O. L. Palmer, and the negro cook (Coates) were riding ahead, and the single soldier assigned us brought up the rear. Just ahead an ideal camping spot was seen, a narrow grass-covered valley with a stream (Holmes' Creek) meandering through the middle, and a long slope thinly covered with sage brush rising from the opposite side. As we came nearer, Palmer and Coates rode together into the meadow to pick out the best spot to pitch camp and had nearly reached the creek when a party of fifty or sixty Indians on their ponies burst over the brow of the hill and came tearing at full speed toward us, yip-yiping as if pandemonium had broken loose. There were only five of us, and we thought our time had come. We saw Palmer and Coates draw their revolvers and expected the 'exercises' to commence at once; but the chief of the band put his hand into his shirt and brought forth a white paper which he held up, the Indians at the same time slowing down and approaching more leisurely. The Indians proved to be Captain Frank and his Shoshones; it was doubtless great fun for them, but I can truthfully say that it was not for us. The Shoshones camped on the opposite side of the creek from us. The next morning Captain Frank saw a muzzle-loading rifle which I had and took a great 'shine' to it. He asked me to let him try it at a mark. I did so, and when he put a bullet through the lid of a yeast-powder can, leaned against a stone at pretty good range, he was anxious to buy it. His first offer was four smoke-tanned buckskins. I refused, knowing by that time that Indians are pretty shrewd traders, and pretended I was not anxious to part with the gun. He then went to his camp and brought a fine buffalo robe, not a very large one, but the skin of a young bull in perfect condition, and put it with the buckskins. I then thought it time to clinch the bargain. The buckskins I sold the same day to a member of our party for \$10.00, for which sum I had been trying to

sell the rifle. The buffalo robe I retained and took home with me. (I will here remark that this was the only good trade I ever made!)

"A third scare happened on July 8, 1869, when a small party consisting of Professor Eaton, the well known botanist (a guest of Mr. King at the time), Sereno Watson, botanist of the survey, a colored cook, a teamster, a soldier and myself were returning from a trip to Pack's Canyon, Uintah Mountains, to our main camp in Parley's Park in the Wahsatch Range. The wagon containing our outfit was ahead, the cook riding just behind it. The soldier and I came next, but so far behind the wagon it was not in sight; while the two botanists were far in the rear, their progress being impeded by their search for plants. We had just reached the divide of a low range of hills and had dismounted to readjust our saddles. My gun was lying on the ground, and I was hauling on the cinch, when happening to look ahead I saw a mounted Indian just as he turned a bend of the road coming toward us. We were in the saddle again when he came up and we spoke to him, but he did not even say 'How'. We then let our horses out in order to catch up with the wagon and were going full speed when on turning a bend in the road we dashed right into the midst of a band of one hundred or more mounted Utes. To say I was surprised is not enough, I was more than that. The Indians, however, smiled good-naturedly at us, opened out to let us pass through and each one either spoke or nodded. (They all knew us, having each at one time or another visited our camp in Parley's Park.) Up to that time the Utes had not had trouble with the whites, except the Mormons, and they knew we were not of that community."

The forbidding nature of certain territory explored by the surveys of this period is touched on by Mr. Ridgway at page 353 of his report previously referred to, where he merely mentions with characteristic modesty his own indisposition under most trying and unfavorable conditions. Fuller details of the incident well illustrate the sturdy nature of his resistance to hardship and suffering in the field. "In August, 1867, while our main camp was at the Big Bend of the Truckee River (near where the town of Wadsworth is now situated) several members of the Survey party, including myself, descended the river in a *bateau* to Pyramid Lake, a distance of about twenty-five miles. On account of the swift current and occasional rapids it was impracticable to return by water (in fact the descent had been sufficiently difficult, not to say risky, in places), so when ready to go back to our camp we were forced to ride horses and mules which were secured at the Indian Reservation. To me was assigned a raw-boned mule so tall that when on his back I felt very much as if I were straddling a high peaked roof. When all was ready for a start the pack mules stampeded and caused so much excitement that my mule commenced to buck. After things quieted down I climbed off my unstable perch and told the 'boss' that I would have to have a less exuberant animal. Everyone was in a more or less bad humor, and I was curtly told to either ride the cantankerous brute that had been given me or *walk*.

"It was about 3 P. M. when the pack animals were rounded up, the scattered articles composing their packs gathered together, packs readjusted and everything made ready for a fresh start; but, nevertheless, *walk* I did, reaching camp (on the opposite side of the river, which I waded) about three o'clock the next morning. Immediately after breakfast on the same day we broke camp and started for the Sink of the Humboldt, our march leading across the Humboldt Desert—in fact it was desert all the way, much of it of the most forbidding description. It was an idiosyncrasy of the mule that I rode to disdain, while on the march, the companionship of another animal, and to forge ahead until far in the lead. This proved to be a fortunate thing for me, for

had my steed's preference been for the rear of the line it is easy to see that I might not have lived to relate the incident. It was near noon, and I was probably a mile, perhaps farther, ahead of the rest of the party, when feeling sick and 'queer' I dismounted, tied my mule to a sage-bush, and lay down in his shadow. I never knew when they picked me up and placed me in the ambulance, nor was I conscious at all until camp was reached. On arriving at the Humboldt Marshes, where we remained for a week, I was down with malarial fever and so weak that no collecting could be done. It was the most uncomfortable camp in all my experience; the water used for drinking and cooking was so charged with sulphur that it smelt like ancient eggs, the air was redolent of the stench of rotting tules, and at night we suffered the torment of millions of blood-thirsty mosquitos."

The reader's imagination will not be taxed in visualizing the desperate situation of the fever-ridden young explorer under these inhospitable conditions. Another dangerous, but less distressing, adventure tested his mettle again nearly a year later in this same region. "Some time in May, 1868, we were camped on the eastern shore of Pyramid Lake not far from the 'Tufa Domes'. While inspecting the latter I had noticed a pair of Peregrine Falcons flying about the upper part of the 'Pyramid' where eventually the location of their nest was discovered. I concluded at once to try to reach it, and I will say right here that I have never had any ambition in the way of climbing. In fact, of all things I am afraid of it is a height of any kind, and to look down from an eminence always produces in me a helpless sort of fear. However, my mind was wholly set on reaching the Falcon's nest, and I thought of nothing else. When I started to put my plan into execution, an artist (Mr. Hill who was Mr.



Fig. 14. THE PYRAMID IN PYRAMID LAKE, NEVADA. FROM PHOTOGRAPH TAKEN IN 1867 BY T. H. O'SULLIVAN, PHOTOGRAPHER OF THE FORTIETH PARALLEL SURVEY EXPEDITION. REPRODUCED BY COURTESY OF THE U. S. GEOLOGICAL SURVEY.

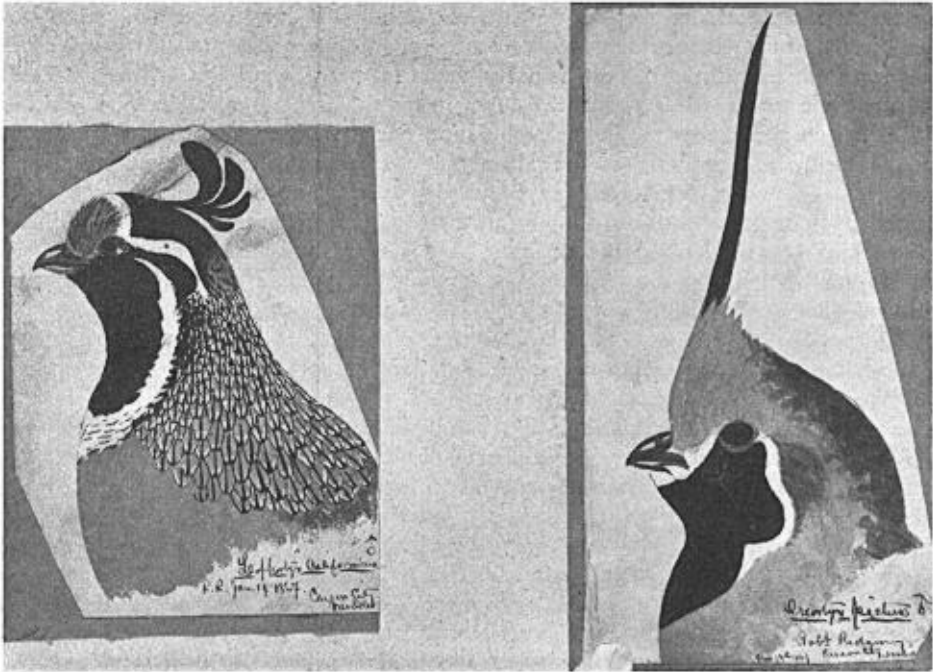


Fig. 15. WATERCOLOR DRAWINGS MADE BY ROBERT RIDGWAY ON A LETTER TO HIS FATHER FROM CARSON CITY, NEVADA, JANUARY 14, 1867.

King's guest at the time) said he would like to accompany me, so we got into a skiff and started. To those who have not been there, it may be explained that the 'Pyramid' is an immense triangular rock rising about 400 feet above the surface of the lake, its base as well as each of its three sides being triangular, and the three sides sheer precipices for about half their height. We found it practicable to land on only one of the three corners, but land we did, and commenced climbing, our faces to the rock. I finally reached the summit, and when I did I was all but paralyzed with fright, so much so in fact that I was sure I should never get down without falling the whole distance. [On reading this recently his brother John remarked that he remembered distinctly Robert telling afterward that he said his prayers up there on top of the rock.] We were so high above the water that all around we could see submerged rocks, the water elsewhere being a deep, dark blue owing to its depth. (If I remember correctly we took soundings of 500 feet between the Pyramid and the Tufa Domes.) However, there was nothing to do but try, so facing outward this time, so that the danger of the situation was constantly before us, we started. We had to proceed cautiously and slowly, but finally reached a point where we could not see how to go farther. Fortunately the man who rowed us out was watching and pointed to the direction we should take, enabling us finally to reach the base.

"I will add that I did *not* reach the Duck Hawk's nest, for that was on the nearly vertical side; but on the very top I found a pebble of agatized chalcedony which I still possess as a memento of the occasion. So far as I know I was the first person to climb the Pyramid. The reservation people had never heard of anyone doing it, and no Indian ever did, because those living about the lake had no boats, not even canoes."

The old photograph of this island which was taken in 1868 by the photographer of

the exploration, T. H. O'Sullivan, and which we are privileged to show here through the courtesy of the United States Geological Survey, is from a print that had been torn to bits and later remounted in such manner as to be entirely unfit for reproduction. After passing under the facile brush of Mr. John Ridgway, who has painted in much of the foreground, the corner of the island on which the landing was made, the one projecting to the right, is well depicted.

While very little reference has ever been made in popular print to the young Ridgway's important work connected with this exploration it attracted at the time the favorable notice of the entire scientific world, and the field was wide for his selection of occupation. Professor Baird, who was not only a most able and tactful executive but commanded the unbounded affection and loyalty of his subordinates, did not propose to lose the services of his promising protégé. However, the way not being clear to enter him at once on the Government roster as a regular member of the Smithsonian staff there was given into his hands, on the completion of his recent field work, the tedious and exacting task of furnishing the technical descriptive material and certain of the drawings for the monumental treatise on North American birds then in course of preparation under the joint authorship of Professor Baird and his intimate friend Dr. Thomas M. Brewer, of Boston. The zealous youth whose ability as a field naturalist had been severely tested and found to be of the most sterling quality was now to prove his worth in a more difficult and more advanced field, and the acquiring of his ornithological scholarship was to begin in earnest. The rapidity with which he attained a finished and masterful technique in delineating in shaded outline and with absolute exactitude the specific characters of bill, wing, tarsus, tail, and foot graphically betokens the zest and success with which this assignment was forwarded.

While thus employed on his contributions to the three volumes of land birds of this great reference work, an opportunity for advancement presented itself that put to a severe test his loyalty to the Smithsonian Institution and to his mentor and scientific godfather, Professor Baird. The incident, which might well be considered the one great turning point in his entire career, cannot be told more effectively than in Mr. Ridgway's own words.

"In 1869 or very early in the seventies Professor A. S. Bickmore, then Superintendent or Director of the American Museum of Natural History, came to Washington and offered me the position of Ornithologist in that institution, with an initial salary of \$1,500 to be gradually increased (annually if my memory is correct). As I was then receiving only \$600 per annum with no certainty of advancement, the offer was of course very tempting; but after consulting with Professor Baird the offer was declined. Professor Bickmore later asked me to recommend some one for the position and I named Dr. J. A. Allen, who was duly appointed and as is well known devoted the remaining years of his life to the upbuilding of that establishment."

By whatever motive this subordination of his obvious best interests was actuated, it pointed with no uncertain emphasis the possession of a loyalty difficult to match in the lives of men. However, the subsequent events of his life have proved beyond question that the decision was in no way unwise. Utterly unable to reconcile an urban existence with any degree of comfort or happiness, his duties as a civil servant were eventually so ordered that it was possible for him to satisfy his dominating home instinct in an entirely congenial environment. In order to illuminate this point the sequence can be conveniently broken here by Mr. Ridgway's own explanation of why he returned to establish a final home in his beloved southern Illinois.

"I have often been asked how or why I happened to locate in Olney, and es-

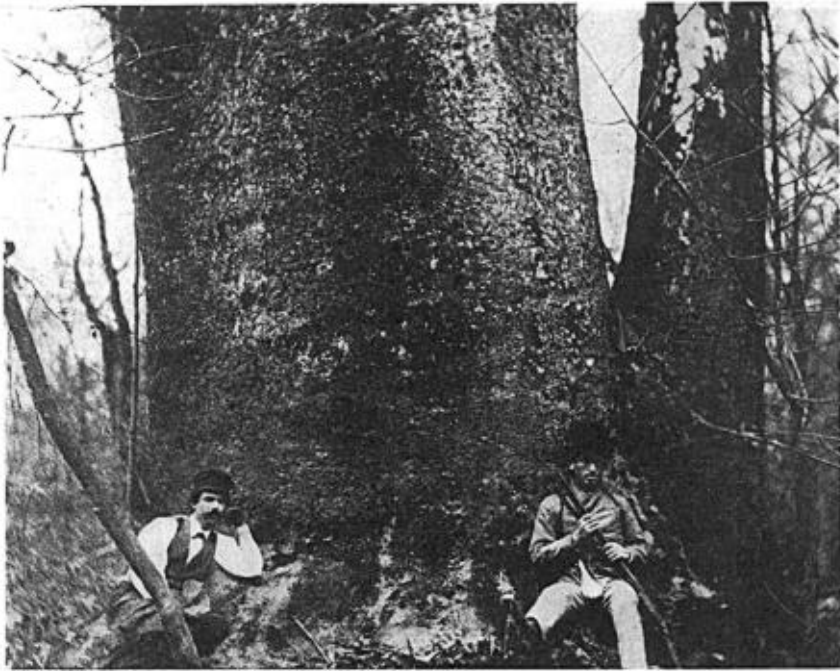


Fig. 16. ROBERT RIDGWAY AND HIS BROTHER CHARLES W. AT BASE OF GIANT SYCAMORE NEAR MOUNT CARMEL IN EARLY SEVENTIES.

pecially why Olney was chosen instead of Mount Carmel where I was born and 'raised'. The answer is very simple.

"From the time that I first left home (in 1867) the intention to return was not only constantly in mind but was the leading thought in all my plans for the future. Had I realized how many years would pass before my plan could be put into effect it is probable that my feelings would have been very much like those of a person sentenced to a life-term in prison. In truth the long delay resulted in more than forty-five years of homesickness, which only interest in my work under favorable auspices enabled me to endure.

"When the realization of my long-cherished plan seemed at last in sight Mount Carmel had changed so much that its attractiveness to me had largely disappeared. Not a single relative remained there, most of my boyhood friends had either died or moved to other places, my old familiar 'stamping grounds' had been obliterated by clearing of the woods, drainage, and cultivation, and thus visible evidence of early associations was mostly destroyed. Olney during my boyhood was almost as much my home as was Mount Carmel, for many relatives lived there (among them no less than fourteen first cousins) and we visited them often; in fact I lived there during the entire summer of 1865. Having so many relations in Olney the place was naturally endeared to me by early associations almost as much as was Mount Carmel. Of my cousins nine were boys, and with them I had congenial company when roaming the surrounding fields, woods, and prairies to such an extent that these were almost as familiar to me as the surroundings of my home town. Happy times we cousins had together. I remember one occasion in particular when all the ingenuity I was capable of was required to avoid showing favoritism. We were all (girls as well as

boys) together one evening and were about to disperse for the night, when I was besieged by one after another to spend the next day at his or her house. I could not of course decide among so many, but a happy thought helped me out; I said that I would stay with the one who would have chicken and noodles for dinner. One cousin—she has recently passed away and was the last one remaining in Olney—was too quick for the others, and thus the matter was settled.

"During my many visits to Olney and during my summer's residence therein there were, as already stated, many opportunities for studying the wild life of the surrounding country, and it was here that some of the most delightful ornithological 'thrills' in all my life were experienced; as for example the sight of hundreds of Swallow-tailed Kites and dozens of Mississippi Kites at one time performing their graceful aerial evolutions, on Fox Prairie, in 1871 (see *Ornithology of Illinois*, vol. I, pp. 13-16). In those days (at least up to 1865) Wild Turkeys and Passenger Pigeons were numerous, and all sorts of game (except deer, which had already become scarce) abounded.

"There were, however, other considerations which decided the choice in favor of Olney. For the first few years my wife and I could leave Washington for only a limited time each year; and as I am an exceedingly poor traveler, especially by rail which tires me very much, simplification of route was an important matter. We could take a sleeper at Washington and not have to get out of it, except to visit the dining car, until we reached Olney twenty-four hours later; whereas, if Mount Carmel were our destination, at least one change of cars and more or less delay were necessary. Therefore, early associations, the fact that all the relatives who had not emigrated to the far west were living here, that my parents were interred here, and that the



Fig. 17. LARCHMOUND, IN OLNEY, ILLINOIS. PRESENT HOME OF MR. RIDGWAY.

trip from Washington and back was more simple and easy than by any other route, were all factors which decided in favor of Olney.

"Apart, however, from associations, memories, and convenience as factors in the choice, there was another reason, and a very important one connected with my decision. I had always been interested in botany, especially the study of trees and other woody plants, though mainly from the standpoint of geographic distribution. The vicinity of Mount Carmel had already been worked up in that line by Dr. Jacob Schneck, who published (in Cox's Geological Survey of Indiana, 1876) a 'Catalogue of the Flora of the Wabash Valley below the mouth of White River', while I had published two papers on the trees of the same region. On the other hand, no botani-



Fig. 18. VIEW OF GROUNDS AT LARCHMOUND.

cal work whatever had been done in Richland County; and knowing that this was not only a virgin field, but an exceedingly interesting one on account of the marked differences in plant life occasioned by the difference in soil conditions, I was anxious at least to make a botanical reconnaissance of this county. Moreover, I realized that if anything of importance in this line was to be done it must be commenced without delay.

"To what extent my expectations have been verified may be seen from the fact that, although it has been impossible to give more than a small fraction of my time to the subject, my investigations have thus far resulted in the addition of many species of plants, among them a very considerable number of trees and shrubs, to the flora of the State, and of two species of trees new to science. The importance of this result consists in the fact that a few years hence it would be impossible to ascertain what originally occurred here, for constant clearing and occasional burning and drain-

ing are destroying the original flora so fast that before many years have gone scarcely more than a vestige will remain. (Already the forest area of the county has been reduced from more than 60 per cent of the total to less than 10 per cent—it was 10.2 per cent in 1923—while of that small amount all but 160 acres consists of second or third growth, saplings, or heavily culled forest.) This possible calamity (from the biologist's point of view) had long been worrying me, and the realization that if anything were done toward acquiring even an approximately correct knowledge of the composition and life-zone relationship of the flora it must be done at once. This had much to do with hastening my change of residence before 'Birds of North and Middle America' was completed. I believed, however, that the botanical work could be done without interfering with the other work, by simply utilizing such time as was available for the purpose (annual leaves, holidays, etc.)."

It may be remarked here that Mr. Ridgway's spare-time botanizing has resulted in the completion of an annotated catalogue of the ligneous plants, together with a partial list of the herbaceous plants of Richland County, which is ready for the press and will soon issue under the auspices of the Illinois State Department of Conservation.

As stated prior to the above digression, the twenty-year-old enthusiast found on the completion of his first Government survey a ready market for his talents. The administrative responsibilities of Professor Baird were beginning to demand his exclusive attention, and he was indeed fortunate in being able at this time to find and develop an ornithologist on whom he could depend with confidence satisfactorily to perform the drudgery of "A History of North American Birds". After the completion of his work on the three volumes of land birds, for which he had been paid a monthly salary of fifty dollars by the Boston publishers, Little, Brown, and Company, Mr. Ridgway was added regularly to the Smithsonian payroll. The joint enterprise having no official standing, the junior author now found himself under the necessity of contributing on his own time the technical and illustrative material for the two volumes of water birds. His salary from the publishers had been discontinued, and for the immense amount of hard work contributed to these last two volumes he received nothing whatever aside from the honor of having his name associated on the title page with those of Professor Baird and Dr. Brewer!

Difficulty has been encountered in securing authentic data illustrative of the highly developed Ridgway sense of fun, though Mr. John Ridgway has mentioned that his brother was not unknown to indulge in an occasional practical joke or other prank. An incident showing the entire normalcy of the youth has recently been told by Dr. Chas. W. Richmond, who as a boy seeking ornithological information was a frequent visitor at the Institution. At the time, Mr. Ridgway with others maintained living quarters in the Smithsonian building, and there were available as well guest rooms for the accommodation of visiting scientists. One of these had been utilized by young Ridgway and two other culprits (José Zeledón and a friend not then connected with the Smithsonian, all members of a Washington gymnasium) for gymnastic and acrobatic exercises with the result that the guest's bed had been completely wrecked. Before secret repairs could restore the demolished bedstead, and while it was temporarily propped up awaiting surreptitious restoration by the guilty trio, the room was assigned to Dr. Stimpson, of the Chicago Academy of Sciences. On his retiring for the night three ears were glued to the other side of the wall awaiting the inevitable crash. The bed unaccountably withstood the initial strain, and it was not until some ten minutes later when the distinguished guest turned over for a final adjustment that the head-board and foot-board parted company with a loud clatter, depositing the

bed itself and its occupant on the tile floor! A frightened (?) inquiry chorused from the adjoining room evoked the reply that "the darn bed had broken down". The Doctor was 'game', however, and without further comment finished out the night on the floor!

Recalling his first office in the Smithsonian building Mr. Ridgway states that "It was in the room next to the top of one of the towers. It was reached by a flight of stone steps, of which, if my memory is correct, there were about 87. (In those days I sometimes ascended the whole flight two steps at a time.) One day several of us were in my office (I can only remember Lucien Turner among those present besides myself) when there was a knock at the door. The invitation to come in was followed by a very large man, a burly German, opening the door and stepping inside. Breathing heavily, in fact audibly, he stopped, mopped his face, then placing his right hand over his heart, as his chest heaved visibly, exclaimed: 'Shentlemens, my heart bleeds for you!'"

Among his associates of the early seventies, all of whom are now dead, Mr. Ridgway particularly recalls William H. Dall, Theodore N. Gill, Henry M. Bannister, and José C. Zeledón. When to this distinguished company are added the names of other associates and constant visitors during the seventies, such as Dr. Elliott Coues, Dr. H. C. Yarrow, Dr. J. H. Kidder, Dr. T. H. Streets, Dr. C. Hart Merriam, Henry W. Henshaw, Dr. R. W. Shufeldt, Henry W. Elliott, and many others, there is conjured up a host of memories concerning what is without question the most productive decade of ornithological development in America. Mr. Ridgway's solemn reflection that alone among his colleagues of these prolific years he remains to complete a great work, is happily relieved by the recollection of many an incident in a lighter vein. Not the least amusing of these is the following.

"A funny incident occurred one day involving Elliott and Bannister. The latter was rather homely, and there being for some reason not the best of feeling between the two, Elliott had the ungracious habit of making fun of Bannister's looks. It happened in Professor Gill's office, where we were all congregated. On this occasion Bannister retaliated by ridiculing Elliott's long nose, which indeed is a remarkable feature of his physiognomy. Elliott retorted that his nose was no longer than his (Bannister's); it might stick out farther from his face, but was no longer from base to tip. To prove his contention, Elliott picked up a pair of dividers and at once measured Bannister's nose, we being witnesses to the accuracy of the measurement; then handing the dividers to Bannister asked him to measure his (Elliott's) nose. Bannister did so, and finding that the lower point of the dividers lacked about a quarter of an inch of reaching the tip jabbed the sharp point in to mark the excess in length. A fight immediately ensued, or rather started, because by the combined efforts of the highly entertained onlookers the combatants were pinioned and separated and held apart until they had cooled off."

Asked to relate some intimate reminiscence associated with the scholarly Coues, Mr. Ridgway writes: "Concerning Dr. Coues, perhaps the incident which has most impressed itself on my memory occurred when he was temporarily occupying a desk in my office. In my younger days I was much given to whistling, especially when at work. It is said that this habit is a sign of a vacant mind. Whether this is true or not I was doing my level best when Dr. Coues interrupted me by remarking: 'Robert, you are quite a whistler, aren't you.' Feeling somewhat flattered I replied, 'well, I can whistle sometimes'; but my vanity was crushed when he answered, 'how much will you take to stop!' This reminds me of an incident in which Henshaw figured prominently. His collection of bird skins was stored in the gallery occupied

at the time by the Division of Birds in the main hall of the Smithsonian building. In an opposite gallery the Division of Shells was quartered. Henshaw was engaged in examining his collection, meanwhile whistling 'to beat the band'. Dr. R. E. C. Stearns was working in the shell gallery. Presently he descended the stairs leading to the main floor, strode to the opposite end of the hall, ascended the flight of stairs leading to the bird gallery, walked up to Henshaw and shaking a hammer in his face shouted: 'Young man, if you don't stop that whistling there will be a vacancy in the Geological Survey!'

In connection with these memories it is recalled that "From time to time volunteer assistants serving without pay or for nominal salary were assigned to the Division of Birds. Among these were Hugh M. Smith, George and C. W. Shoemaker, A. H. Jennings, Chas. W. Richmond, J. H. Riley, and others whose names I cannot now recall. All these were efficient helpers. Richmond and Riley later received regular appointments and are still connected with the Division of Birds, the former as Associate Curator, the latter as Aid; and no more efficient and faithful employees can be found in any service. Hugh M. Smith became U. S. Commissioner of Fisheries, and is now connected in an official advisory capacity with the Siamese government. Richmond I first knew as a boy who now and then brought in birds' eggs for identification."

The romance that was later to dominate his life entered during the early seventies in the guise of a very beautiful young daughter of one of the two engravers engaged in cutting the wood blocks to print the illustrations for the "History of North American Birds". Julia Evelyn Perkins, then but fourteen years of age, was first seen by young Ridgway in the main hall of the Smithsonian building, and it was an unmistakable case of love at first sight. He resolved on the spot to either have this lovely girl for his wife or forever remain a forlorn and miserable bachelor. Observing her in conversation with an elderly man of his acquaintance his eager inquiry on her departure developed the fact that she was the man's grand-daughter. Through this relationship an early meeting with the radiant young beauty was arranged, and there followed an ardent courtship that resulted in marriage on October 12, 1875. The extraordinary beauty and happiness of their fifty-two years of life together, only recently terminated by the death of Mrs. Ridgway, has often been the subject of remark among friends who knew them both. But one overwhelming grief ever entered their lives. On the death of their only child, Audubon Whelock Ridgway, at the age of twenty-four years, Mrs. Ridgway suffered a complete break-down in health from which she never wholly recovered. Recently writing from his now lonely home in Olney concerning the lives of his departed loved ones, Mr. Ridgway says: "Julia Evelyn Perkins spent the first fourteen years of her life in New York City in a house overlooking Central Park. Frequent visits to the park to observe and feed the birds engendered in earliest childhood a deep love for our feathered friends. She also took great interest in her father's work and assisted him materially by making proofs from the wood blocks which he had engraved. On the family's removal to Washington in her fifteenth year her pleasure in this work became greater after her acquaintance with the junior author of the work which her father's engravings were to illustrate, and to whom she was married on October 12, 1875.

"During her entire life Mrs. Ridgway's love for birds never flagged, nor did her efforts in their behalf ever cease. When we lived in a suburb of Washington, she often returned from a visit to the city with one or more 'bean-shooters' or 'nigger-killers' taken from boys who had been using these juvenile implements of destruction with birds as their targets. When the first Audubon Society was organized, she was asked to act as local secretary. A little later she was a charter member of the Audubon



Fig. 19. ROBERT RIDGWAY AND HIS FAMILY AT THEIR HOME IN BROOKLAND, D. C.



Fig. 20. MRS. RIDGWAY IN 1908.

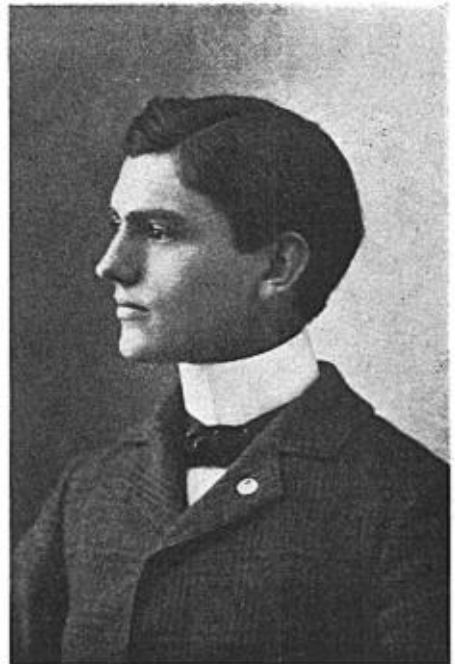


Fig. 21. AUDUBON WHELOCK RIDGWAY IN 1899.

Society of the District of Columbia, and was not only very active in increasing the membership, but was appointed one of a committee delegated to canvas the millinery establishments and department stores of Washington for the purpose of trying to induce the proprietors to discard birds and feathers as ornaments on women's hats. Her pioneering in this field was fruitful of much good.

"Ill health, immediately following the death of her only son, later prevented Mrs. Ridgway from taking an active part in Audubon Society work, but did not in the least diminish her interest in bird protection. Here at our home she spared no effort to encourage the birds to stay with us, with results that have been extremely gratifying.

"It does not always happen that the wife of a naturalist or other 'scientist' is in full sympathy with her husband's occupation; probably we all know of one or more instances in which this is conspicuously true. In this respect I have been exceedingly fortunate, for from first to last Mrs. Ridgway was more interested in my work than in anything else, the only part of it which she did not approve being the collecting of specimens, and this disapproval was the result of her extreme tenderness of heart toward all living creatures, birds especially. Neither did she entirely approve of my activities concerning Bird Haven, for she thought I was spending more on the place than we could afford, which was entirely true.

"When 'Color Standards' was ready for publication she insisted on attending to the sales herself, in order to secure for us what would otherwise be the publisher's profits. I tried to dissuade her, for I realized fully the amount of labor it would involve and knew that she did not; but she could not be convinced, so most reluctantly I allowed her to take the matter in hand. She devoted herself to it faithfully, attended to all the correspondence, and not only wrapped and addressed practically every copy sent out, but before doing so carefully examined each one in order to see that there was no omission or duplication of plates or transposition of colors (as sometimes happened in the making up), frequently replacing abraded or otherwise imperfect colors with new ones, a stock of which was kept on hand. No one who has not done similar work with the same thoroughness can realize how much tedious labor was involved. She kept it up, however, until in December, 1921, when she broke down completely and never recovered.

"Mrs. Ridgway left written (sealed) instructions as to what was to be done in case of her death. She wished to be cremated and her ashes 'scattered to mingle with God's great out-of-doors, which I love so much.' She did not specify *where* her ashes were to be scattered, and I could think of no more appropriate place than Bird Haven, already hallowed by earlier associations. So, alone, I scattered them near the site of the little cottage where she and I together passed some of our happiest and most care-free days."

The mingled grief and despair suffered by Mr. Ridgway on complying with this last sad request of his greatly beloved wife can be readily appreciated by those of his friends who have known of his extreme devotion to Mrs. Ridgway. The heart-breaking duty was performed late in May, 1927, a few weeks prior to the arrival from San Diego, California, of a widowed sister, Mrs. Lida R. Palmatier, who has taken charge of the home of the bereaved "Master of Larchmound."

The son, Audubon Whelock Ridgway, was born May 15, 1877, in Washington, D. C., and died of pneumonia in Chicago, February 22, 1901. His body rests in Greenwood Cemetery, Washington. A number of the youth's drawings recently examined by the writer show clearly a discriminating taste and accuracy in delineating

natural objects, especially birds and mammals. They compare very favorably in certain particulars with similar work done by his father in his own youth, and indicate that he could have specialized in this field to good effect. Regarding his son, Mr. Ridgway says: "From very early childhood Audubon evinced strong interest in natural history and a penchant for drawing. In the latter he was versatile, not confining his efforts to natural history subjects but including as well landscapes and caricatures. Later he tried modeling in clay, some of his work in that line (several examples of which are still extant) being very creditable considering the age of the young artist. Later still he took up photography and became exceedingly proficient, his work in this line embracing a great variety of subjects. Several beautiful transparencies (positives) which he made from my negatives are still in my possession, as are many of his early drawings.

"Although much interested in birds, and knowing all the commoner species by their correct names, he did not like to shoot them, doubtless owing to his mother's influence, and therefore never attempted to make a collection of specimens. I well remember the first time that I put a gun in his hands and took him with me on a collecting trip. The gun was a 32 caliber light tube with pistol handle. The first bird he killed with it was a Killdeer Plover, as it flew past him. Later on the same day—it was 'Warbler season'—after shooting he called to me: 'Papa, come here; I have shot such a pretty bird; it has a blue back and a black bib,' which was a very good description of the male Black-throated Blue Warbler, which it proved to be. On another occasion (though several years younger) he had seen a wasp for the first time. Not knowing what it was he described it as 'a funny-looking bee with a tail like a Motmot.'

"When he had become proficient in photography he was offered a position as assistant photographer in one of the Bureaus of the Department of Agriculture; but I had reasons (or thought I had) for objecting to his taking a Government position, and consequently discouraged him from accepting it. For this I have been sorry ever since, for it may be that if he had remained in Washington he might have been spared to us.

"Not long afterward (some time during the year 1900) Charles B. Cory, Curator of Birds in the Field Museum, wrote me asking if I could recommend an assistant. I at once nominated Audubon. He was accepted and shortly went to Chicago, where, I was informed, he filled his position very satisfactorily. His fatal illness was caused by his having become overheated while skating and then becoming chilled.

"Audubon was of a cheerful, lively disposition, was exceedingly fond of company, and consequently was popular with young folks, among whom he had many friends. He was very entertaining, being a good imitator and impersonator, and therefore was seldom alone. I remember one trick which he played on some of his girl friends. It had been his custom on returning from a trip to the city to put a bag of candies in his side coat-pocket, then invite the girls to put in a hand and help themselves. We had a 'pet' green snake or grass snake, which we kept in the conservatory. One day Audie substituted this for the candy, to the great terror of the girl who probed the pocket for the accustomed sweets, and to the great consternation of the others!

"From early childhood Audubon was much impressed by the 'pomp and circumstance of war', and yearned to be a soldier. At the outbreak of the Spanish War he enlisted and was assigned to Company B, 3rd Engineers. To his intense disappointment, however, he did not see active service, because, on account of his mother's serious nervous breakdown it became necessary to secure his discharge, which was accomplished



Fig. 22. FIRST PHOTOGRAPH EVER TAKEN BY ROBERT RIDGWAY. SHOWING YOUNG SON ON GROUNDS OF SMITHSONIAN INSTITUTION ABOUT 1835.



Fig. 23. AUDUBON RIDGWAY IN THE FIELD NEAR FORT BASSINGER, FLORIDA, FEBRUARY 22, 1896.

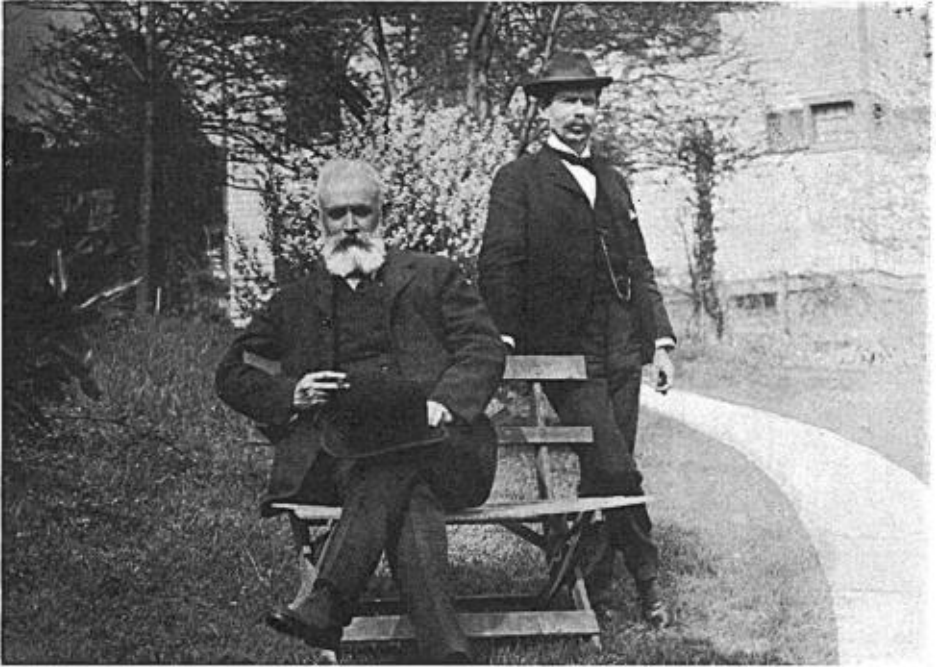


Fig. 24. WILLIAM BREWSTER AND ROBERT RIDGWAY AT THE BROOKLAND, D. C., HOME DURING A. O. U. MEETING IN THE NINETIES.

with great difficulty. Her mind had been worked on by accounts in the papers of great hardships of the soldiers in camp, sickness, poor food, etc.; yet Audubon wrote us that he was well and strong and that the only ones who were complaining were individuals who had never fared so well before."

Referring again to the monumental "History of North American Birds", the first three volumes of which were published in 1874 while the two volumes of water birds (being in reality the concluding portion of the "Ornithology of the geological survey of California") did not appear until ten years later, there has recently been recalled by Dr. Richmond a suppressed publication of this period under the joint authorship of Professor Baird and Robert Ridgway. Dr. Richmond states that some years ago he had unearthed in his office in the National Museum a batch of page proof of a book entitled "Outlines of American Ornithology" by S. F. Baird and R. Ridgway, Part 1, Land Birds, Boston, Little, Brown & Co., 1873. There are 166 pages of this proof stamped as received on various dates between March 27, 1872, and January 3, 1874, and there are five plates representing generic characters. With the exception of pages 127 to 130 and plates iv and vi, which have been lost, the proof has been bound up and catalogued by the library of the National Museum, and constitutes the only copy extant of the "Outlines". Why this book was suppressed after having progressed to the stage of page proof is thus explained by Mr. Ridgway: "I have been asked why Professor Baird's 'Outlines of American Ornithology' was never published. It may not be known that this work consisted merely of the 'Keys' in 'History of North American Birds' and was reprinted from the stereotype plates made for these volumes. In 1887 so much information had accumulated concerning North American

birds during the thirteen or fourteen years that had elapsed since the publication of the three volumes of land birds referred to, that it would have been impracticable to remodel these 'Keys'; while all those for the water birds published three years earlier would also have to be reconstructed. In recognition of these difficulties I had already been preparing the manuscript of my 'Manual of North American Birds'; and when this was published there was no need for publishing the 'Outlines.'" (See Auk, 1888, p. 8, footnote.)

An incident of the late seventies that has always given Mr. Ridgway great pleasure to recall was William Brewster's visit to Mount Carmel. Its recital by him will afford the reader additional evidence of the predominate trait in his character, of love of home and friends.

"Among pleasant memories none are more cherished than those of friends whom it has been my good fortune to entertain and go afield with; and of all these memories none is more delightful than that of William Brewster, who accompanied me from Washington to Mount Carmel the middle of April, 1878, and remained with me there until about the middle of June, during which period we were in the woods together almost every day. As a descriptive writer on bird life Brewster in my estimation had no peer; with no attempt or effort for effect, his style is so simple, direct, and chaste, and so absolutely true that nothing more can be desired. Personally he was one of the most lovable of men, sincere in his friendships, and in the field a most pleasant companion. As only one of many examples of his charming style of writing I will cite his article on the Prothonotary Warbler, in the Bulletin of the Nuttall Ornithological Club (III, 1878, pp. 153-162). I select this article in particular because it affords a pretext for some brief observations on profound changes that have taken place in the country within the lifetime of an individual. Mr. Brewster's description of the cypress swamp in Knox County, Indiana, gives a very correct idea of the region as it was a little less than fifty years ago. Then, not only the area considered, but the entire flood plain of the lower Wabash River (averaging about ten miles in width) was for the greater part a virgin wilderness. The cypresses were as large as those growing in the Gulf States, and elsewhere the forest, composed of hardwoods of more than a hundred species, attained a height and bulk not exceeded anywhere in the United States except by the giant conifers of the Pacific Coast. Now, however, the cypress swamp, covering an area of some twenty thousand acres, is replaced by corn fields, and only pitiful remnants remain of what was once miles upon miles of unbroken virgin forest.

"Another region of precious memory is that of Monteur's Pond, also in Knox County, Indiana, near where my parents resided for several years, during which on annual visits to them I did much in the way of natural history investigation. Monteur's Pond was an area nine miles in length by about one mile in average width. It was really a wooded swamp, only the central part being open, and even there the water was mostly filled with aquatic plants. The region was remarkably rich in life of all kinds; several southern species of reptiles never before obtained so far north were taken there. A colony of Yellow-crowned Night Herons were nesting in the large timber at the edge of the swamp, and Prothonotary Warblers abounded among the large willows growing thickly in the swamp itself. About 1887 this pond like the cypress swamp was drained and cleared and is now in corn. So complete has been the clearing process, so profound the change in the entire region, that a member of the Biological Survey in passing through on the B. & O. S. W. Railway entered in his notebook, 'A prairie-like region!'"

By the early eighties Mr. Ridgway's scientific duties were beginning to make



Fig. 25. JOHN L. RIDGWAY. FROM RECENT PHOTOGRAPH.

such insistent and exclusive demands on his time that he was compelled gradually to discontinue the illustrative phase of his work that had been such an important and valuable factor in his output. Possibly sensing the likelihood of developing his younger brother John as an efficient aid in this field, but with more the idea in mind of doing something to further his brother's material interests, he urged John to try his luck in Washington. He says: "Recognizing in my brother John's drawings first-class ability as an artist, and realizing that at home no opportunity offered to develop or profit by his talents, I had him come to Washington in the hope that something might turn up to his advantage. It was a long time, however, before this hope was realized." As Mr. Ridgway finds it difficult to recall the facts and circumstances of this time, John himself has very kindly consented to furnish the following particulars in continuation of the story: "During the repeated visits of Robert to our home which, with one or two exceptions, occurred each year of his absence in Washington, he had taken note of my early efforts at drawing, and greatly desired to further my prospects. Having taken up the matter with an artist at the Smithsonian, he wrote asking me to

submit samples of my work for examination there. For this purpose I selected as a subject for my drawing some live mice, which were placed under a glass funnel through which I could plainly see them and study their attitudes. The drawings were made in pencil and fully shaded, and were in due time forwarded.

"Robert had taught me how to skin birds, and I had done some collecting for him in the vicinity of our home town. This skinning of birds was looked upon there as a very strange and unusual accomplishment, and in consequence I was dubbed 'The Skinner' by all of my acquaintances—a pseudonym that clung to me until I was called to Washington as a result of the sample drawing.

"Robert has always had a strong sense of humor and was always fond of a joke, so my surprise (as well as that of another brother who was telegraph operator at the station) may well be imagined when a message came from Robert consisting of these three words, 'Send the Skinner.'

"When I reached Washington I was put to work in the Division of Birds, then located in the South Tower of the Smithsonian Institution. There were 87 steps leading up to the large room occupied by my brother, which I well remember, for I was errand boy on many occasions. My official designation was that of 'copyist,' my work consisting mainly of copying manuscripts, writing labels, handling specimens, and drawing generic outlines. Occasionally under the supervision of my brother I would undertake finished drawings of birds in color—bird plates as they were called—for persons not connected with the Smithsonian. Up to this time (the middle eighties) my brother had been able to devote a part of his spare time to the drawing of birds, and I was often allowed to help, so that some of the plates made at this time bear both his initials and mine. I believe we made in this way, among others, the originals for Nelson's plates in his 'Report upon Natural History Collections made in Alaska between the Years 1877 and 1881', and those for Turner's 'Contributions to the Natural History of Alaska: Results of Investigations made chiefly in the Yukon District and the Aleutian Islands'. I was thus able to learn the rudiments of bird portraiture under a very competent teacher, and the actual handling of birds, some of which were received in the flesh, enabled me to make careful studies of feather tracts and other important details. But it was uphill work for me, as I was not an ornithologist and lacked the enthusiasm that such an expert would bring to the delineation and portrayal of bird life. Through the succeeding years, however, I gradually relieved my brother of the details of drawing as he became more deeply engrossed in his ornithological studies, and did most of the work in this line that had formerly come to him; but he was always my preceptor, and even after I had left the Smithsonian to accept a position in the U. S. Geological Survey I drew my birds when possible only after conferring with him as to the habits and characteristic attitudes of each. Thus for several years I worked with my brother or directly under his supervision."

Another brother whose career was influenced by Robert's success was Joseph H. Ridgway. Choosing taxidermy as a profession he was employed successively by the Iowa State Museum, the University Museum at Urbana, Illinois, and the Field Museum, Chicago. Though not especially interested in birds he had done considerable collecting, having executed a commission in Alaska for taking rather extensive series of both birds and mammals for the Louisiana Purchase Exposition. He died at the age of 43 in Bellingham, Washington, in 1907.

Little has ever been said regarding Robert Ridgway's remarkable skill as a draughtsman and colorist, though the world is of course familiar with his definitive

and epochal achievement in standardizing colors and color nomenclature; while credit for the most satisfying of John Ridgway's results in scientific delineation has been almost entirely overlooked. In his bird plates Robert Ridgway was intent only on the accurate portrayal of form, proportion, and color pattern, with no effort at pictorial effect or general composition. His ability faithfully to execute correct and finished studies of birds in both line and wash stood him in good stead during the years of his scientific apprenticeship, as well as later when he had attained to more mature scholarship. The period of his activity in avian portraiture was one of transition from the long recognized school that represented its models in a more or less conventional or diagrammatic form, to the present-day ease and grace of expression that mark the splendid compositions of our best bird artists. His draughtsmanship when brought to bear for purely scientific ends could not have been rendered to better effect, and is best illustrated by his groups of line drawings of generic characters scattered throughout his writings. While these are probably all of equal merit the most notable examples are found in his well known "Manual of North American Birds", the first edition of which appeared in 1887. Many of these groups were done by Mr. Ridgway himself, and had been used in the "History" and elsewhere, but the greater portion were made under his direction by his brother John and a Mr. Schoenborn. These drawings will stand as models of their kind, and serve in an eminently satisfactory manner the purpose for which they were intended. The wax process used in reproducing this work accounts for the remarkably clear definition of line which is impossible of attainment by the more commonly practiced method of zinc etching. The drawings of Mr. Ridgway which are shown here have been selected at random with only the idea of exhibiting his range of treatment.

Compelled to pioneer from the earliest years of his striving for exactitude in color, his ideals and demands could not be realized in the published work of any predecessor in this field, and he was under the necessity of himself establishing a standard. His own brief reference in a recent letter to the more than twenty-five years of intense application to the problems involved in this huge undertaking follow. "Prior to 1886 there had been no satisfactory attempt at the standardization of color names. Most of the works on color were purely technical, pertaining to the physics of color, the painter's needs, or to some particular art or industry alone, or were in other ways unsuited to the needs of the zoologist, the botanist, the pathologist, or the mineralogist; and the comparatively few works intended for naturalists all failed to meet the requirements, either because of an insufficient number of named colors, lack of names, or other means of easy identification or designation, or faulty selection of the colors chosen for illustration. An attempt to supply this deficiency was made by the publication in 1886 of 'A Nomenclature of Colors for Naturalists and Compendium of Useful Knowledge for Ornithologists' (Little, Brown, & Co., Boston), in which 186 named colors were shown. Realizing the inadequacy of this work, chiefly from the small number of colors given, but also on account of the manner of reproduction (stenciling) which caused more or less variation in different copies, the author some two or three years later again took up the subject and attempted to devise a plan for greatly increasing the number of named colors and at the same time secure absolute uniformity throughout an edition of several thousand copies. This effort culminated in the publication by the author in 1912 of 'Color Standards and Color Nomenclature' in which the named colors were increased to 1115."

A letter to Mr. W. Lee Chambers shortly after the appearance of the first copies

of "Color Standards" recounts some interesting and little known details connected with its publication.

3447 Oakwood Terrace, N.W.
Washington, D. C.
May 10, 1913.

Dear Mr. Chambers:

Your kind letter of the 3rd inst. has been received. Thank you very much for your good opinion of the color book, which I hope you will find useful.

I think there is no danger that the edition will soon be exhausted, for, necessarily,

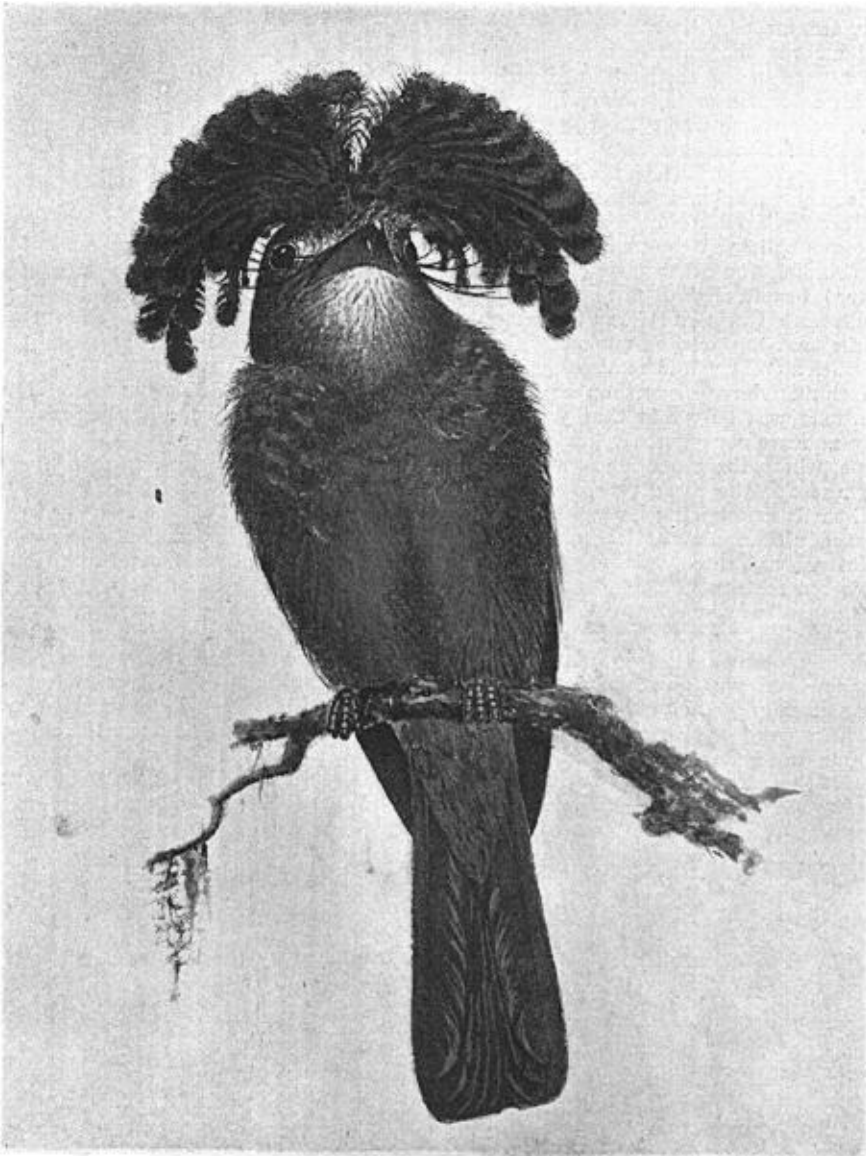


Fig. 26. WATERCOLOR PORTRAIT MADE BY ROBERT RIDGWAY IN THE LATE SEVENTIES.

there is a limited demand for works of this sort. Five thousand (5000) sets of the plates are being prepared, but only 1000 will be bound as a first edition. The contract with the makers of the book included binding the whole 5000; but they have lost so much on the contract (about \$5000 they tell me), which was taken at entirely too low a figure, that I voluntarily made that concession (with one or two others) in order to reduce their loss as much as possible.

When the 5000 copies are disposed of the work can be reproduced only by doing it all over again, because it is *all hand work*; that is to say, each separate color was mixed in one 'batch' (enough for the 5000 copies), then large sheets of paper were evenly coated *by hand* with this one mixture, and these sheets afterward cut into the small pieces which represent the colors on the plates. In this way, only, can absolute uniformity of different copies be guaranteed, for the possibility of variation is thus wholly eliminated. No mechanical methods (at least none known at the present time) would answer the purpose, and chromo-lithography would not do because the oil or varnish used in the composition of printing inks would cause eventual change of color through oxidation of the vehicle.

The color firm who did the work greatly underestimated the difficulties of reproducing the plates, and encountered serious problems which required much time to work out at every stage. They thought six months would be sufficient for the accomplishment of the task, but it actually took them *more than three years!*

Here in Washington, especially in the Biological Survey, there has been considerable grumbling at the price of the books, but with all it has cost me, some \$8000 in cash (binding the other 4000 copies will be an additional expense, and a considerable one, too) practically all my spare time for the past 25 years (the hardest and most difficult work I ever did), and no end of worry over delays, etc., I think you will agree with me that the price is not too high. (There are other considerations, which I need not mention, that would remove any doubt whatever in the matter.)

I think I have *more than covered* the points concerning which you asked for information; will only add that we are getting copies from Hoen and Company very slowly and are consequently behind in filling orders. No copies have yet been sent to Europe, where there are many orders to fill, none being as yet available for the purpose; and for the same reason we have not yet advertized the book, only about 50 postal cards announcing its publication having been sent out. Only one review has yet appeared, although an article in the *Evening Star* of this city, inaccurate as newspaper articles are apt to be, has been somewhat extensively reprinted in other papers. An unexpected feature in the sale of the book, thus far, is that not one copy in five thus far sold has been bought by a naturalist, a large majority being taken by representatives of various trades; for example, Parke, Davis, & Co., Detroit, drug manufacturers; a firm of playing-card manufacturers; electrical companies; etc. What surprised me most, however, was an order for 10 copies (!) from one firm of civil engineers after having already bought one copy. Then, too, some of the Departments of the Government have purchased the book, as the Bureau of Standards, the National Museum (1 copy), and the Bureau of Plant Industry of the Department of Agriculture. I have no doubt that after prospectuses have been sent to the various libraries throughout the country (which I shall not do until assured of a supply with which to meet orders) the book will sell as fast as we (or rather my wife, who is 'Business Manager' of the firm) can attend to its sale.

Very truly yours,
Robert Ridgway.

The general acceptance of this work as a standard by the scientific, artistic, and industrial worlds was a foregone conclusion, since alone among books in its field it rests on the firm foundation of immutable scientific principle. Mr. Ridgway has long ago disposed of his interest in the book, since which time the original price of \$8 has been increased. (See *Auk*, 1923, p. 688, including footnote.)

The history of the founding of the American Ornithologists' Union has been recorded at various times in all its important particulars, and is familiar to most students. Some intimate side-lights on Mr. Ridgway's connection with this important move, as

well as his support of and reaction to the launching of "The Auk" can best be conveyed through a transcript of his side of the actual correspondence that passed during this period between him and Dr. J. A. Allen. Mr. Ridgway's letters had been rescued from destruction at the time of Dr. Allen's death by Dr. C. L. Camp, now of the University of California, and their use here is made possible by the courtesy of Dr. Joseph Grinnell, their present custodian. Dr. Allen's side of this correspondence, together with many other historically valuable letters to Mr. Ridgway from other sources, has been deposited in the matchless collection of ornithologica being assembled in the library of McGill University, Toronto, as a memorial to his mother by the indefatigable Dr. Casey A. Wood, of Chicago.

The reproduction given here of the vignette portrait of the Great Auk prepared by Mr. Ridgway for use on the cover of the quarterly is from a proof pulled from the wood block referred to in the correspondence. It will be remembered that the first cover design of "The Auk" was made up without a picture of the bird, which was because Dr. Allen did not like the Ridgway drawing, and did not have time before publication to arrange for another. It is more than likely that Mr. Ridgway attained a more faithful and better proportioned likeness of the great bird, even if with less pictorial effect, than is shown in the vignette finally selected by the careful editor. Here are the letters referred to, together with one from Prof. Baird and two to Dr. Coues.

Washington, August 11, 1883.

Dear Mr. Allen:

I received yesterday the circular inviting me to attend "a convention of American ornithologists" to be held in New York City on the 26th of September, prox. I need not inform you that I rejoice at the prospect of gaining more unanimity in the matter of nomenclature—one of the stated objects of the convention, or that I heartily approve of the step which is being taken.

While it will probably be inconvenient for me to attend the convention in person, I will draw up suggestions and recommendations concerning the disputed questions of nomenclature, which will serve the purpose just as well as if I were present.

Very truly yours,
Robert Ridgway.

Washington, August 18, 1883.

Dear Mr. Allen:

I am just in receipt of your letter of the 16th inst. The great difficulty which I see in the way of having the question of nomenclature discussed by "the convention as a whole", is that this would involve the value of the views of a considerable number of amateurs, some of them with the crudest possible information upon the subject, as opposed to the intelligent discussion of the subject by a few well informed specialists. The only way, in my opinion, would be to have the matter put into the hands of a committee composed exclusively of working ornithologists, and have this committee hold a special session for the purpose of coming to an agreement. Now it strikes me that this matter can be satisfactorily arranged by holding the meeting of the committee here, in the National Museum, for the reason that we have by far the best collection of North American birds in the country, and it will be quite necessary to compare specimens and discuss together many disputed questions. Should the session of the committee be held here for the purpose, I would ask you to bring with you the Mus. Comp. Zool. series of certain species, and Mr. Brewster to bring with him all his specimens of the same. We would also want material from other sources. Does not this proposition strike you as a good one? Such a meeting could be held very conveniently in my office, with all the collections (now, happily, very conveniently arranged) near at hand, and the session need not take more than a week at farthest, and would probably not require more than three or four days. I will take great pleasure in entertaining as my guest one member of the committee during the session. I cannot too strongly urge, however, the *necessity* of limiting such committee to a very

carefully selected number of working ornithologists who are known to possess intelligent views of nomenclature.

I have already begun, and in fact have made considerable headway with, the formulation of my recommendations and suggestions, and will certainly (health permitting) have them ready in time. If this matter is worth taking in hand it certainly is worth *doing well*; and I am confident that my plan would tend to this result as well as any other. Hoping to have your views regarding this matter, I am

Very sincerely yours,

Robert Ridgway.

Washington, October 13, 1883.

My dear Mr. Allen:

I should have answered your very interesting and welcome letter sooner, but for the fact I have been quite indisposed for several days past. In fact, it requires the greatest amount of exertion that I am able to command to write at all. I have felt very strongly since my return the reaction of the nervous strain to which I was subjected in New York, and am pulled down in consequence to about where I was before going away. I write this by way of apology for not writing to you sooner, and trust my excuse may be deemed sufficient. This is the first day I have attempted any work since Wednesday.

As to my manuscript list of Mount Carmel birds, I would like to have you return it to me, as I have a special use for it. When I sent it on I actually did not know that the "Sparrow question" was a tabooed subject! Now, however, I see the wisdom of its prohibition. Brewster did write me a letter explaining the matter, but when I wrote him I forgot to refer to it, and in New York I failed to mention it to him, although it came to my mind several times when I had no opportunity to speak.

Regret at your absence, and the cause therefor, was universally expressed at the convention, and every one spoke in terms of the sincerest sympathy with you. I am sure that you need not regret your present official connection with the A. O. U., for your election was unanimous, and but the expression of the universal sentiment of the meeting. I can appreciate, however, your feelings in the matter, for I would have very much preferred some one in my place, and consented only after it had been explained to me as necessary for the sake of harmony and the successful result of the convention. I am in all respects unfitted for taking an active part in matters of this kind, and sincerely trust it may never be necessary for me to exercise the function of the office other than in a latent manner.

The result of the convention cannot fail to be productive of vast good to the ornithologists of this country, who certainly have reason to congratulate themselves on the harmony and good feeling which prevailed. There was only one matter which I regret, and that is that Mr. D. G. Elliot was not put in some important office or on some of the more important committees. I think every one regrets it, but it seemed at the time to be a necessary matter of policy. I am sure that every one felt very friendly toward him at the beginning, and the gentlemanly manner in which he took what might almost be called a snub elicited very general expressions of admiration for his personal character as a man and gentleman. I suppose it will be in order soon to begin thinking about nomenclatural matters. The first thing of course will be to draft rules for our guidance, and these rules should be as clear and explicit as possible, so as to leave no possible cause for uncertainty of interpretation or applicability. I am in favor of what Dr. Coues has somewhere called a "statute of limitation"; in fact, it seems to be not only desirable but also quite necessary, in order to avoid change of names. However, I suppose it would be best for each member of the committee to put his suggestions on paper as they occur to him and then compare notes at the meeting. I am confident that each member of the committee will do his utmost to secure harmony in the deliberations, and, while it will doubtless be necessary to argue some point very thoroughly there should be no occasion for anything like wrangling over a disputed point. The committee is so evenly balanced that it will probably be an easy matter to agree upon questions regarding which there must necessarily be more or less difference of opinion.

Hoping to have the pleasure of again hearing from you at your leisure, I am, with sincere regard,

Very truly your friend,
Robert Ridgway.

Washington, October 17, 1883.

My dear Mr. Allen:

Many thanks for the return of the manuscript. I return postage herewith.

Your letter on the subject of the Editorial Staff has not yet been received, but will probably arrive in due time, perhaps this afternoon. December will suit me as well as any other time for the meeting of the Council. Since my return I have had no opportunity whatever to devote to the subject of nomenclatural matters, and fear that when the time comes most of my suggestions will have to be made off-hand. Official business, that is, matters pertaining to the regular business of the Department of Birds of the Museum take up almost all my time. I will of course do the best I can, however.

Very truly yours,
Robert Ridgway.

Washington, October 18, 1883.

My dear Mr. Allen:

I am in receipt of your letter relating to the question of the editorial staff of the serial publication to be issued by the A. O. U., and can only say, in reply thereto, that I *heartily endorse* the same. The only name to which I could make any objection is my own, and this would be on account of my not being able to do much toward assisting you. My engagements are so numerous and trying that I must be very careful about accepting further responsibilities. However, I am willing to serve, and will do the best that I possibly can.

Have you any idea of Captain Bendire's present address? I have not seen him nor heard from him since the New York meeting, and wish to communicate with him.

Very truly yours,
Robert Ridgway.

Washington, D. C., Nov. 9, 1883.

Dear Mr. Allen:

Your selection of names as associate editors of the new ornithological periodical is, I think, decidedly the best possible.

The name which you propose is a very quaint one, and I should be very well satisfied to see it adopted. It constitutes a good antithesis to the London Ibis.

Yrs. truly,
S. F. Baird.

Washington, Nov. 13, 1883.

My dear Mr. Allen:

Your letter of the 10th inst. has just been read with great interest. You have given the subject of the new publication such careful consideration that I have no remarks to make except in the way of approval of what has seemed best to you. In short, your ideas correspond to mine exactly. As to the word "Auk", the very same objections which you name occurred to me the moment I first heard it suggested. My choice as to titles is between nos. 2 and 3, each of which is in some respects better than the other; no. 3 on account of greater brevity, no. 2 because more like the original title of the Nuttall Bulletin. Of the two, I think I rather prefer "American Ornithologist", on account of its being shorter and therefore *easier to quote*; which is no slight consideration from a practical point of view. (The other would be abbreviated into "*Bull. A.O.U.*", this into simply "*Am. Orn.*".)

As to the general "make up" of the journal, the plan you have outlined meets my views *exactly*, and I do not, at present at least, see how it could be improved on.

By the way: What is to be done in case Henshaw is not here in time to attend the meeting of the committee on nomenclature? He writes me that it is very doubtful whether he can be on hand.

The commencement of printing of the "Water birds of North America" has, I think, affected my health favorably—at least I feel as if a great load was lifted off my mind! I shall be happy when the thing is completed.

Hoping that you are well, and that you will be able to visit Washington this winter, I am, as ever

Sincerely yours,
Robert Ridgway.

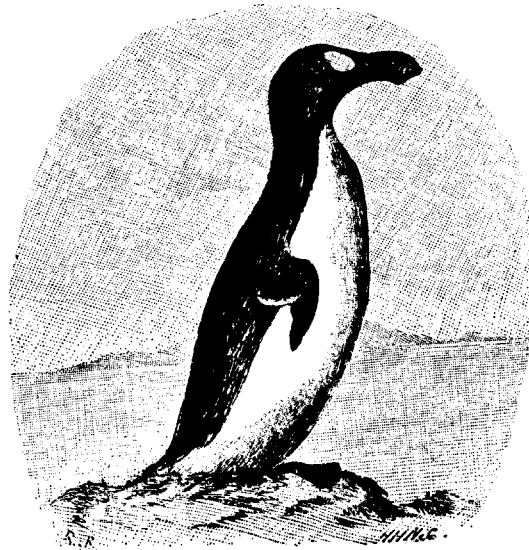


Fig. 27. WOODCUT FROM DRAWING MADE BY ROBERT RIDGWAY FOR THE FIRST ISSUE OF THE AUK. THIS VIGNETTE WAS DISCARDED.

Washington, Nov. 28, 1883.

My dear Mr. Allen:

Your two letters of the 25th and 26th inst. came to hand yesterday. There will be no difficulty in securing a suitable room for the meeting of the Council or committee on nomenclature.

If you have not made different arrangements, or have not specially considered any, I should be most happy to have you stop with me during your stay in Washington. The advantage to you would be that my house is less than 500 yards from the Smithsonian, pleasantly located, and *in by far the most quiet section of the city*. I have plenty of room, and would consider it a very great pleasure to entertain you during your visit. Have a cozy quiet "sanctum" opening directly into the room you would occupy (on second floor), with books, bird-pictures, sketches, etc., etc., and we could enjoy many quiet "chats" together.

Hoping it will be convenient for you to accept my invitation, I am,

Sincerely yours,
Robert Ridgway.

Washington, Dec. 7, 1883.

My dear Mr. Allen:

I hope you will excuse my apparent negligence in replying to your very kind letter, but there has been such a multitude of matters requiring my attention that

I have been obliged to put off writing, until now there is scarcely time for my letter to reach you before you leave for Washington.

I am sorry your previous engagement will prevent your stopping with me during your stay in Washington, but I hope to see you nevertheless, and also, when it suits your convenience, at my house, where I have a few things with which to entertain you.

You will be here in time to see some nice collections, notably Stejneger's from Commander Islands & Petropaulski, Kamtschatka, which numbers about 700 skins, among which are 7 adults of *Thalassoaetus pelagicus*, besides 1 nestling. They are so far as I know the only adults of this species in America. It has been quite impossible for me to get the collections in the shape I had hoped to have them by the time of your arrival, but you will be able to appreciate the reason when you come on much better than I could explain.

Hoping to see you very soon, I am,
Very sincerely yours,
Robert Ridgway.

Washington, Dec. 28, '83.

Dear Dr. Coues:

I have been waiting *patiently* for instructions regarding *size* of cut for "The Auk", which I am ready to make as soon as the matter is decided.

R. R.

Washington, Jan. 1, 1884.

My dear Mr. Allen:

. . . . The drawing of the Auk has been turned over to the engraver, who promises it by Saturday.

Wishing you a very happy New Year, I am,
Very truly yours,
Robert Ridgway.

Washington, Jan. 8, 1884.

Dear Mr. Allen:

Did you send photograph? It has not arrived yet, though your letter came two or three days ago. The cut of the Auk is a disappointment to me, as it is not equal to the drawing I made. If it is considered unsuitable I will foot the bill, which will not be very big.

Sincerely yours,
Robert Ridgway.

Dear Dr. Coues:

I think the cut considerably improved. If it should prove unsatisfactory in Mr. Allen's judgment, it will cost the A.O.U. nothing, for I will pay for the engraving myself. Perhaps it may be best upon the whole to let some professional artist in Cambridge or Boston make a new drawing, and let me keep the block already made.

Very truly yrs.

R. Ridgway.

Jan 8, 1884.

Washington, Jan. 15, 1884.

Dear Mr. Allen:

Your two letters of the 12th and 13th inst. have just come to hand. I can imagine that you feel very happy that the first issue of the *Auk* is at last off your hands! As to the cut, I consider it in every respect an entire failure, and if you will return the block to me I will *tenderly care for it*. I have never seen Cory's work, and do not believe there is a copy of it in Washington. If you like his plate of the Great Auk (and I've no doubt it is excellent, for I have heard only favorable expressions of opinion regarding the illustrations of the work in question) I think it would be an excellent idea to have it reduced for this purpose. My picture, as it looked on wood, rather pleased me, although fully aware that a professional artist could do very much

better. I would not have undertaken it only for your request to do so, and a sincere desire to help along to the full extent of my opportunity and ability.

By the way: Was not Stejneger's description of the new Woodpecker from Kamschatka overlooked?

My surmise regarding *Zenaidura yucatanensis* proves correct. I have recently seen one of Gaumer's specimens, and it proves to be true *Zenaida amabilis* and not *Z. yucatanensis*. The type of the latter is unique, and is probably a hybrid between *Z. amabilis* and *Z. carolinensis*.

I scarcely know what to say regarding the faunal area question. Nothing would please me better than to be able to take up the subject in earnest, and make it a specialty for some time to come. My duties are so multitudinous, however, that at present I cannot see my way clear to even *touching* it! Since Jan. 1st I have catalogued more than 1500 bird skins, with several hundred more needing immediate attention, besides any quantity of other routine work. In fact, my duties are constantly increasing. It is possible, however, that during the summer I may find time to do something, and if I can will be very glad to.

I will take 25 copies of the Bison maps, and may want more.

It will give you some idea of how busy I have been when I tell you that in addition to numerous other duties I have written my report for December, my annual report for 1883, and unpacked, classified, and entered 2000 birds since 1st of the month! I have no idea that the amount of labor required of me will be much less in proportion for the remainder of the year, although of course it is not at all likely there will be so many specimens to catalogue in one month. So you see it would not be safe for me to undertake any active work in the geograph. distr. subject under present circumstances, much as I would like to do so.

Your photo was received yesterday, and is very welcome. Many thanks for it!

Sincerely yours,

Robert Ridgway.

Washington, Jan. 21, 1884.

Dear Mr. Allen:

"The Auk" together with your letter of the 18th inst. came to hand today. To confess the truth I am rather disappointed in the appearance of the former, and feel more than ever dissatisfied with the name adopted. . . . However, I trust future numbers may look better.

As to the next meeting of the committee on nomenclature, the early part of March will suit me as well as any other time. It is probable that this would meet Brewster's convenience best also, as I believe he wants to take a trip South before 1st of April. It has been quite out of the question for me to do anything with nomenclatural matters since you were here, but I may be able to find time yet. Stejneger also has been wholly occupied with his report, and has therefore had no time yet to do anything with the investigations assigned to him; but he expects to have progressed sufficiently within a week or two to be able to spare a portion of each day to it.

I am very glad to know that your health has improved, and trust that the improvement may continue.

Very sincerely yours,

Robert Ridgway.

Washington, April 17, 1884.

Dear Mr. Allen:

I return herewith proof of notice of Captain Bendire's collection. It is so good and covers all the points so completely that I have nothing to add to it. I will reply later to your letter on nomenclatural matters. As to *Grus pratensis* we fortunately need not concern ourselves, as the name is antedated by *Grus mexicana* Müller (1776) of unquestionable pertinency and availability. With what you say regarding Bartram's names I agree entirely, and could not go farther than to accept *Corvus floridanus* and *Cathartes atratus*—with the possible addition of *Meleagris americana* or *occidentalis*. Since the meeting Dr. Stejneger and I have in the course of our investigations stumbled upon several cases which will necessitate some extremely un-

desirable transpositions of names unless some modification of our rules can be effected. The most important and necessary change is that concerning identification of a name by the type specimen, and such identification to be held as overruling total discrepancy between the description and the type. Practically, this rule, as adopted, will work no end of mischief. It is a known fact that in the St. Petersburg Museum and perhaps some others, type specimens have been stolen or otherwise removed and other specimens substituted for them! While in other museums of the first rank (e.g. that of the Philadelphia Academy) labels have been often transposed or lost so that in some cases it is impossible to be sure that one has the type in hand.

We will lay the matter before you more fully in a few days.

Sincerely yours,

Robert Ridgway.

Dr. Stejneger sends his compliments.

(Over) What in the world is the reason I don't get my copy of *The Auk*? Copies have been here for nearly a week, but mine has not come yet!

R.R.

Washington, April 22, 1884.

Dear Mr. Allen:

I send herewith a couple of papers for the *Auk*. I have a very beautiful new Snow Bunting (*Plectrophenax hyperboreus*) which I wish we could publish a plate of. The latter is already made, and I will furnish it (the original drawing) free of charge if it can be published.

You may perhaps imagine the state of supreme disgust that I am in at not receiving my copy of the April *Auk*. I have written you twice about it, and once to Estes & Lauriat, and unless I hear from some one soon about the matter shall come to the conclusion that the publication is like its namesake—defunct.

Very truly yours,

R. Ridgway.

Washington, April 29, 1884.

Dear Mr. Allen:

My copies of the *Auk* having come at last, I feel somewhat better. To tell the truth I was thoroughly disgusted.

Regarding the matter of which you wrote, I feel compelled to say that I do not favor it at all. I think we have already gone too far in giving "sops" to our English brethren, and I am also quite sure the whole thing is, to say the least, very *amusing* to them. I cannot see how the interests of the A.O.U. would be advanced by the proposed measure—in fact, there seems to me not the slightest necessity nor even desirability of it. My views are not based in the least on any personal considerations, but wholly upon politic grounds.

I have, as you requested, shown your letter to Henshaw, and he at once expressed his unqualified disapproval.

I learned of Dr. Coues' intention of going to England incidentally, through other parties, but he has never said anything to me about it himself.

Sincerely yours,

R. Ridgway.

Washington, April 30, 1884.

Dear Mr. Allen:

Recurring to the subject of your letter, it strikes me that the committee on Nomenclature having enjoined upon its members great caution in their conversation with members of the Union not on the committee, it would obviously be improper to allow a free discussion of the subject it has had specially in hand with persons entirely out of the Union, whether American or foreigners. Furthermore, I do not see what power the *Council* has to delegate *anyone* to consult with anyone else upon matters pertaining solely to the Committee on Classification and Nomenclature, which alone has this right! We understand thoroughly what we want and what we are trying to do; and we also know precisely the stand the B.O.U. takes on matters of

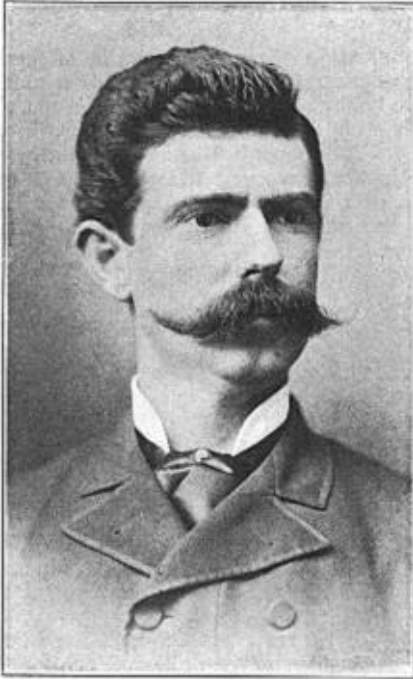


Fig. 28. AT THIRTY-THREE, JANUARY, 1884.

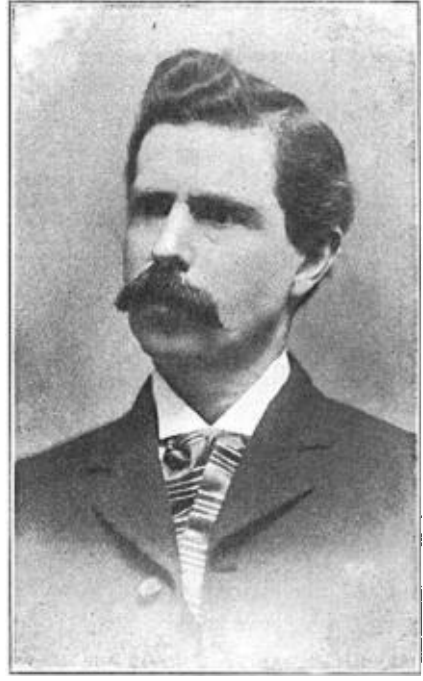


Fig. 29. AT FORTY-EIGHT, DECEMBER, 1898.



Fig. 30. AT SEVENTY-TWO, FEBRUARY, 1923.

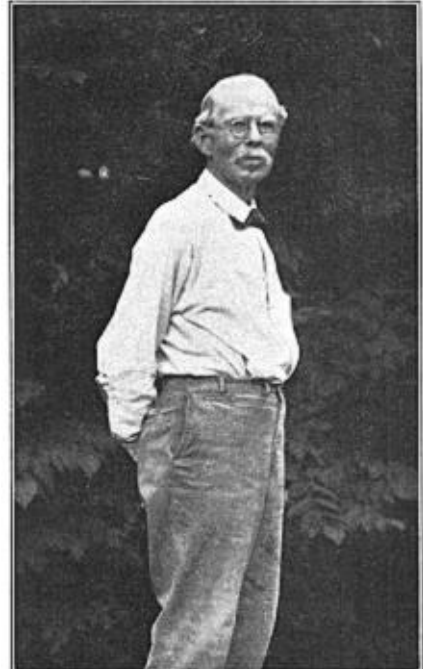


Fig. 31. AT SEVENTY-FIVE, JUNE, 1926.

PORTRAITS OF ROBERT RIDGWAY, FROM THE RUTHVEN DEANE COLLECTION.

nomenclature,—a stand regarding certain points, which they are as little likely to yield as are we our convictions. Let us go ahead with the work we have begun, and they will surely fall in line in good time. Thus far we have made few mistakes, and none that cannot be remedied; but I feel sure a great *blunder* would be committed by carrying out Dr. C[oues]'s plan.

Very sincerely yours,
Robert Ridgway.

Smithsonian, May 6, 1884.

Dear Mr. Allen:

I have just compared your thrushes with our series, and the following is the result. [Follows two pages of technical matter with comment.]

I believe I have nothing further to say regarding the matter we have been corresponding about. You are of course at liberty to do anything you choose in an individual capacity, but the whole thing strikes me more unfavorably the more I think about it!

Very truly yours,
Robert Ridgway.

During the course of this correspondence the organization of the American Ornithologists' Union had been effected with Mr. Ridgway as one of its twenty-three founders, one of its two vice-presidents, a member of two committees, including the most important one on "A Revision of the Classification and Nomenclature of North American Birds", and one of the four assistant-editors of "The Auk". He was drafted to the vice-presidency, and in later years to the presidency, much against his wishes, and could he have prevailed in the matter the honors would have gone to others instead. Ever ready to apply his scientific learning to the general good, and always willing to give freely of his own time to the advancement of the objects and interests of organized science, he has always thoroughly disliked and avoided public appearance. This modest retirement to the background fortunately finds no reflection in his written delivery, which is characterized by both vigor and felicity of expression, and when used for pure literary ends is distinguished by an always appropriate grace and elegance. Especially happy are his tributes to respected colleagues. His powers of terse and exact description are known wherever birds are systematically studied, and his own names for a wide range of tints, shades, and hues of colors have come into general use wherever exactitude and uniformity in color nomenclature are demanded.

The completed report of the Committee on Classification and Nomenclature, rendered as it was by the leaders of a new school of ornithology, was, as might have been expected, revolutionary in character, and called forth the loud and caustic disapproval of many of its tenets in certain foreign scientific circles. The prospect of the general acceptance of trinomials was especially distasteful to several influential British scientists, but this was probably owing more to an innate opposition to change rather than to failure to realize the necessity for it. The committee itself happily obviated the possibility of general argument until after its work had been finished, when domestic opposition was soon silenced by a brief educational campaign. Mr. Ridgway's sound judgment in urging a strict adherence to American standards to the exclusion of any "sops" being thrown "our English brethren", and his prophetic declaration that "they will surely fall in line in good time" have been fully vindicated by subsequent events. The report of the full committee (composed of J. A. Allen, Dr. E. Coues, R. Ridgway, Wm. Brewster, and H. W. Henshaw, with Dr. L. Stejneger as an additional advisor in determining species and subspecies) was published in its entirety under one cover only in the first edition in 1886, and appeared at a most opportune time. (It may be said parenthetically at this point that the much-



Fig. 32. WILLIAM PALMER AND E. J. BROWN WITH ROBERT RIDGWAY IN FLORIDA IN 1895.



Fig. 33. MR. RIDGWAY WITH HIS FIRST IVORY-BILL. BIG CYPRESS SWAMP, FLORIDA, 1898.

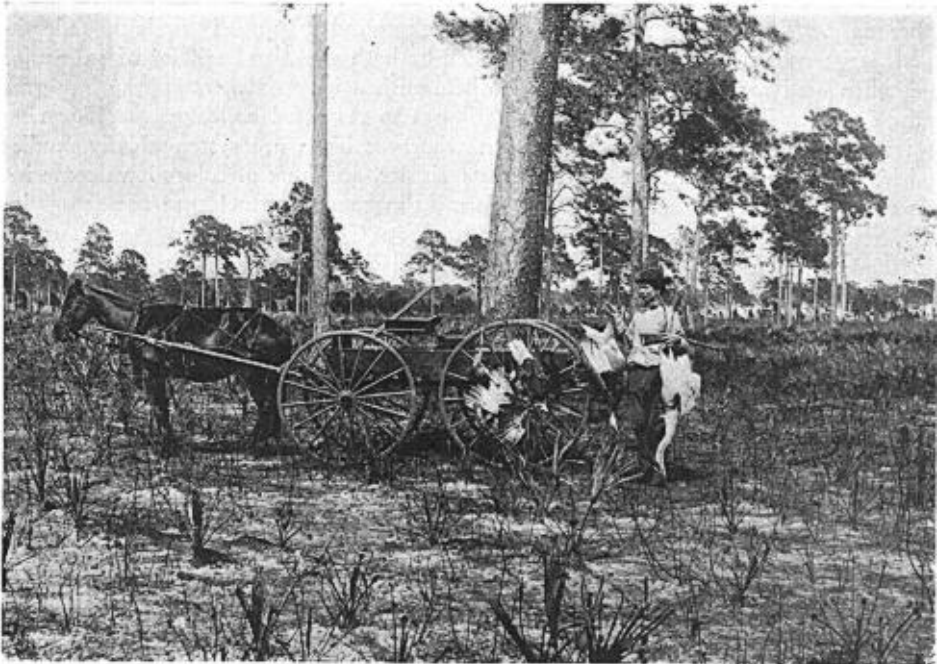


Fig. 34. MR. RIDGWAY WITH PART OF BAG OF LARGE SPECIMENS TAKEN WITH RIFLE NEAR ORANGE HAMMOCK, FLORIDA, IN MARCH, 1895.

needed and long-expected fourth edition of the Check-list will be hardly less timely.) That the report exerted a widespread influence throughout the world of zoological science is of course well known.

Probably not until the personnel and the secret deliberations of the group responsible for this important and comprehensive document can have been critically examined and analyzed in the light of adequate historical perspective, will the weight of Mr. Ridgway's personality and wise counsel in helping shape the final result be fully recognized. The letters transcribed above can not fail to furnish suggestive material along this line.



Fig. 35. COLLECTING ON THE VOLCANO OF POAS, COSTA RICA.

Having been led into a scientific career partly through his superior qualities as a field man, and having won his ornithological spurs through a severe field test in a virgin wilderness as Zoologist of the Fortieth Parallel Survey, it is not surprising even considering his extreme distaste for traveling that he should have conducted important field investigations during some of his busiest years in Washington. Among the more notable and fruitful of these were the Florida trips in 1895, 1896, and 1897; the Harriman Alaska Expedition in 1899; and the Costa Rica explorations of 1904 and 1908. Briefly enumerating these Mr. Ridgway says: "Collecting trips were made to southern Florida during the winters of 1895 (Kissimmee and south to Lake Arbuckle and Orange Hammock), 1896 (south to Fort Bassinger, Taylor's Creek near Lake Okeechobee, where the Parrakeet was first collected, and Chandler's Hammock in the saw-grass near the northwest edge of the Everglades), and 1897 (to Fort Myers and thence up the Caloosahatchie to Lake Flirt, to Lake Trafford, and to the Big Cypress where the Ivory-billed Woodpecker was first met with and obtained). [His observations on the Ivory-bill were published in "The Osprey", vol. III, 1898,

pp. 35-36, while William Palmer's account of the 1895 trip, together with a list of the birds, appears in the same magazine, vol. v, 1901, pp. 131-133, 147-149, 163-165.]

"In 1899 the period from May 31 to July 30 (which included the time required for the transcontinental journey from New York to Seattle and return) was passed as a member of the Harriman Alaska Expedition. This trip was one which I did not want to take; in fact I did my best to avoid going. I have never been able to enthuse over ice or snow, of which we had a surfeit in Washington the preceding winter; nor have I ever had any desire to travel northward; consequently the glaciers which evidently greatly interested others of the party possessed no charm for me. However, I went (under pressure), and while the result was very satisfactory so far as the col-

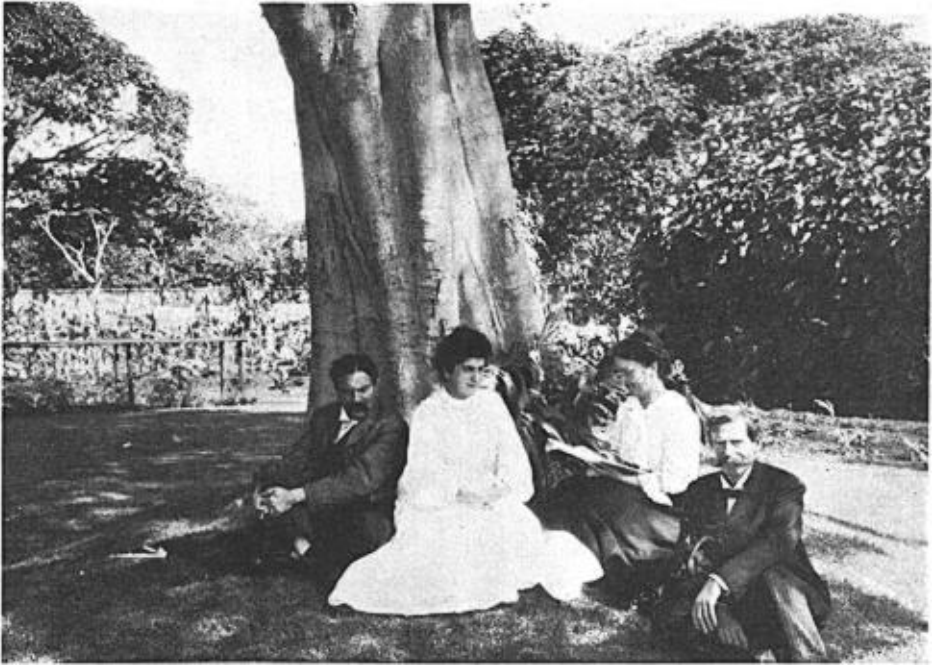


Fig. 36. JOSÉ C. ZELEDON AND ROBERT RIDGWAY WITH THEIR WIVES IN COSTA RICA IN 1905.

lection of material to use in the preparation of 'Bulletin 50' is concerned the trip was not, for me, an enjoyable one.

"From December 8, 1904, to May 27, 1905, and from February 7 to May 8, 1908, I was in Costa Rica collecting specimens of birds for the U. S. National Museum. [See 'The Condor', vol VII, 1905, pp. 151-160, and *Smithsonian Report* for 1921, pp. 303-324.]"

Asked to relate some more intimate details of his experiences on these trips to the field, he continues: "February 27, 1895, E. J. Brown, William Palmer, and I walked from Arnold's on the southwest side of Lake Kissimmee, southern Florida, to Orange Hammock, on the Kissimmee River, a distance of about 26 miles. We had landed from a sail-boat the previous afternoon, our outfit being carried ashore and our camp for the night made near the landing. During a stroll that evening my shoes were thoroughly soaked, and after returning I tried to dry them by the camp fire with



Fig. 37. JOSE ZELEDON AND MR. RIDGWAY SKINNING BIRDS IN COSTA RICA.



Fig. 38. PART OF THE WORK IN COSTA RICA.



Fig. 39. MR. RIDGWAY WITH PET TOUCAN "RAMON".

the result that they were so thoroughly dried that the leather was as hard as horn and badly shrunken. The next morning our outfit was loaded on two rickety one-horse wagons, and we started on our tramp. By some unaccountable oversight, I had neglected to bring with me an extra pair of shoes, so it was necessary either to wear the burnt ones or to walk barefoot. The shoes hurt my feet at the start, but hoping that they might 'limber up' after a while I kept on walking, though every step was painful. We reached Orange Hammock after dark, and on taking off my shoes and socks, which was of course the first thing I did, found that the nails of both big toes were raised over highly inflamed and infected cushions. It was two weeks before I could again wear shoes, and therefore I had the pleasure (?) of remaining in camp during all that time while my companions each day went out collecting. It was my first visit to Florida, and as this was the first place where we had an opportunity to do anything in that line my disappointment may be imagined. But my companions were generous, and unselfishly shared their specimens with me. Brown, however, was an inveterate joker, and delighted in gloating over something he had secured, or on a particularly good bag. Before we left I had an opportunity to get even with him. One day near the end of our stay here—almost the first trip I had been able to make—I was out by myself and located some large birds of various kinds; but realizing that if I killed those desired I could not carry the specimens to camp, I went that evening to the house of a 'Cracker' who lived not far away and arranged for him to take me next morning in his one-horse wagon. After breakfast I walked to his house (Brown and Palmer not noticing me leave) when I found him ready to start. I got the birds I was after (two Sandhill Cranes, one or two Ward's Herons, a Bald Eagle, a Black Vulture, and others). The wagon-bed was full, and over the specimens to protect them from the sun was spread a rubber poncho. When we drove up to the camp Brown and Palmer, surprised at my coming in this way came out to meet the wagon and ask sundry questions. Lifting the cover from my spoils I coolly replied: 'When I go hunting I take a wagon along to bring back my game'!

"Recalling the killing of a deer on our return to this region about three weeks later reminds me of the fact that I have killed nothing, not even quail, *for sport* for the past thirty years or more; and during that time I have not taken the life of any creature except for some good reason. It may be of interest to know that during the past thirty-five years I have not used a larger bore shotgun than a 20 gauge, yet with this I have killed the only two deer I ever shot at with it, many Wild Turkeys, Sandhill Cranes, Eagles, and other large game. The first deer killed with this 20 gauge (loaded with 00 shot) was running at full speed, in fact was making a long leap at the time, and as it fell it turned a summersault and had finished kicking when we reached it. This occurred on March 11 when we were returning to Orange Hammock from Lake Arbuckle; Palmer and I walking across country, Brown going with the wagon that held our outfit.

"At the time of my last collecting trip to southern Florida, in February and March, 1898, I went from Fort Myers to Immokalee (then a very small village and the location of a Seminole Indian agency), from where my outfit was hauled to the vicinity of Lake Trafford. From there I went to the Big Cypress region in search of Ivory-billed Woodpeckers. My guide had what he called a 'hog ranch' there, and the camp outfit was hauled in his light wagon drawn by a pair of small oxen. A serious drought prevailed over that part of southern Florida. There had been no rain since the preceding September, and all the shallow ponds and sloughs were dried up and others becoming dry. Consequently no good water was to be found, and what we used would not be relished by a particular person. At the Lake Trafford camp the water

used had to be strained through cheese-cloth, so full was it of tadpoles, 'wrigglers', and other forms of animal life. At Corbett's hog ranch there was no water at all; but by digging a deep hole in the center of a dried up 'maiden-cane' pond, and waiting several hours for the water to seep in from the muck we got a supply, such as it was. This water was so bad that even strong coffee made with it had a very bad odor and was barely drinkable; but it was all we had during the week we remained there. On our return trip to Fort Myers we came at noon to a cypress slough. Halting for dinner my camp assistant took a tin pail to the slough to get water for coffee. On reaching the slough he called and beckoned to me; so I went over and found that the surface of the water was so covered with dead fish, bloated and floating on the surface so thickly that it was necessary to brush the fish to one side with the pail before it could be filled.

"These incidents are related mainly to show that a field naturalist's experiences are not altogether enjoyable, but that on the contrary they include much hard labor, and many hardships, risks, and dangers.

"On this same trip, on February 15, 1898, I was encamped in the big cypress region south of Immokalee where I had gone to search for the Ivory-bills. The previous day my guide and my companion, who had been engaged as cook and general helper, made a hunting trip to a locality several miles distant and had seen a colony of Roseate Spoonbills, a bird I had not yet seen. Being anxious to see the bird in life, and if possible secure specimens, I had them take me next morning to the place where the birds had been seen. The Spoonbills saw us long before we got within reach and flew away. The guide thought the birds would return before noon and suggested that I sit down by the cypress trees bordering the pond where they had been feeding and wait for them. I did so and my companions went off, one of them returning directly to



Fig. 40. THE HOG RANCH CAMP SHOWING DEER KILLED WITH TWENTY GAUGE SHOTGUN.



Fig. 41. NOON CAMP BETWEEN LAKE KISSIMMEE AND ORANGE HAMMOCK, FLORIDA, MARCH, 1895. MR. RIDGWAY LEANING AGAINST WAGON.

camp. As the sequel proved, I did not see them again until the next morning. The Spoonbills did not return, and, after waiting until about three P. M., I concluded to return to camp. Very foolishly I attempted to take a short cut; that is to say, instead of going back by the circuitous route by which we had come (the reason for which I could not understand at the time, though I certainly did afterwards) I thought to go back in a direct line. Without going into details concerning the difficulties which were encountered—saw-grass marshes, soft soap flats, tangled jungles through which it was necessary to cut my way, and cypress swamps which had to be waded regardless of alligators and cotton-mouth moccasins—the sun went down just as I came out of the last cypress swamp. [It was here that the first Ivory-bill was heard—see ‘Osprey’ article cited.] That ended my tramp for that day, because in that wild region it is difficult enough to walk by daylight and impossible after dark. So while there was still enough light I gathered a quantity of dead branches and started a fire at the base of a dead live-oak stump, at intervals during the night replenishing the supply by setting fire to the dead cabbage palmetto leaves which always hang underneath the living crown, thus not only illuminating the immediate surroundings but, as I hoped, serving as a signal to my companions who might be searching for me. When daylight came I started in the direction of camp and after firing my gun was answered by another shot from the camp, which was only a few hundred yards distant, though on account of a dense fog it was invisible. My companions had been up all night and had fired off nearly all the ammunition they had, but I had heard none of their shots, because a wind was blowing in the wrong direction.

“June 11 and 12, 1899, several members of the Harriman Alaska Expedition, including A. K. Fisher, L. A. Fuertes, and myself were camped near Point Gustavus,

a triangular peninsula on the north side of Glacier Bay. The first day we were at this camp the three of us went out on a trip of observation to get a general idea of the character of the country and find out what birds occurred there. We had not gone very far before we heard a song that was new to us—a peculiar buzzing trill, now high, now low, and seemingly of a ventriloquial quality. It apparently came from the top of a Sitka Spruce tree first in one direction, then in another, but we were unable to see the bird and returned to camp with the mystery unsolved. Next morning Fisher and I planned to start on a search for the bird immediately after breakfast, Fuertes having something else to do. I was all ready and impatient to start, but something detained Fisher, so I told him I would go out a short distance into the woods where he could join me when he was ready. I was hardly out of sight of camp when the mysterious bird sang, and of course I tried to locate it. It led me in several different directions, so that finally when the bird stopped singing and I thought to return to camp I had not the slightest idea which direction to go, for in my eagerness to find the bird I had entirely neglected to keep my bearings. The sky was overcast at the time, and the clouds hung low upon the mountains, thus completely obliterating landmarks that would have guided me. I had with me a pocket compass, but never having used one I did not know which end of the needle pointed north, and in that latitude there seems to be no way to tell by the moss on the tree trunks. I tested the compass with my gun barrel and hunting knife, but could get no conclusive results, probably on account of some local condition affecting the needle. Realizing the necessity of getting back to camp as soon as possible (there was a possibility of the steamer calling for us that afternoon), I made up my mind to guess at the needle, and as it turned out I guessed wrong, and proceeded in exactly the opposite direction to that



Fig. 42. AT WORK ON PART I, "BIRDS OF NORTH AND MIDDLE AMERICA", BROOKLAND, D. C., 1894.

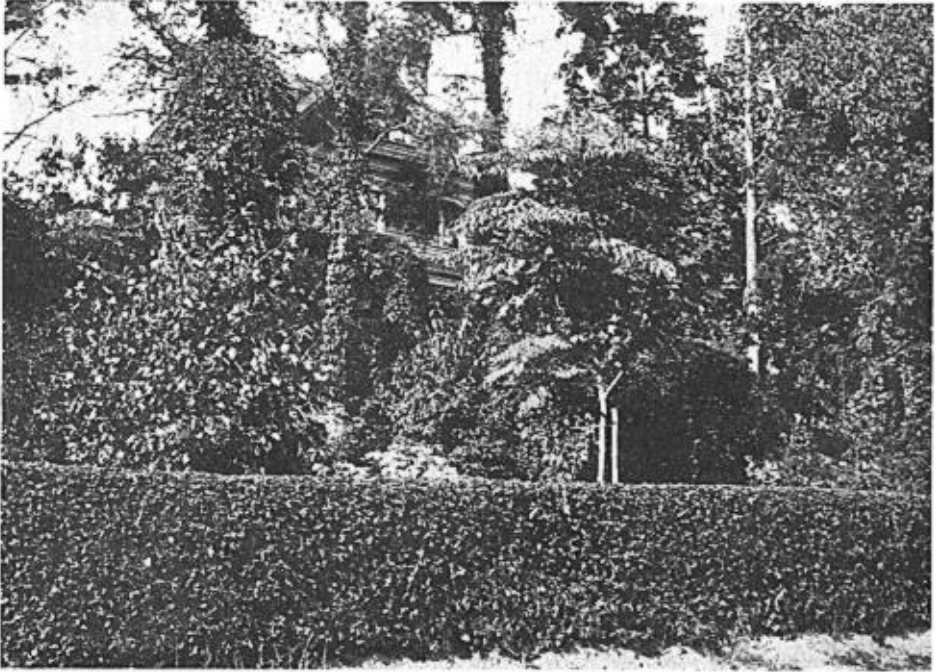


Fig. 43. THE RIDGWAY HOME IN BROOKLAND, D. C.

which should have been taken. It should be explained that the peninsula was of broad triangular shape, was covered for the most part with a young forest of Sitka Spruce, the more open parts by practically impenetrable thickets of alder, through which various wild animals had made intricate trails. These I followed as best I could in the general direction I wished to take, and finally I came out on the side of the peninsula opposite that on which our camp was situated, but much farther from the point than the camp, though I did not realize this at the time. Hoping for easier walking I went to the beach, but found it was necessary either to force my way through dense grass and herbage or over stones uncovered by the ebb-tide, and chose the latter; but the stones were all covered with slippery seaweed, so progress was both slow and tiresome. After a while a projecting rock or promontory resembling one not far below our camp came into view, and I hoped after rounding it I might see the end of the journey, but I did not, and several similar points were passed with the same result. Finally, however, after passing the last one, camp was sighted and at last reached. I had been walking continuously from six A.M. to about five P.M., most of the time over exceedingly difficult ground, and of course I was ready for a good supper and bed. On boarding the steamer I looked up the map of the region, and measuring with dividers the distance from camp to the opposite side, thence to the point and from there to camp, the total distance in straight lines was some thirty miles, and there can be no doubt that several miles were added by the meanderings of my course. The mysterious bird was not identified, but later proved to be the Varied Thrush.

"This was the only occasion on which I was ever really lost; the Florida experience related above was not a case of getting lost, but merely of not being able to reach camp before dark. Had the region about Point Gustavus been more extensive my experience might then have ended very differently, as the whole region was

uninhabited, and it is easy to see that I might have kept on wandering until exhausted."

It is probably not generally known that Mr. Ridgway had been of very material assistance to Professor Langley during the years of his experimentation in the field of aeronautics. In the person of Mr. Ridgway the Professor had ready to his hand technical scholarship and experience of vital necessity to the solution of serious problems then confronting him. With characteristic brevity and diffidence Mr. Ridgway gives only the barest outline of his invaluable contributions to the epochal achievement of Professor Langley. "Until reminded of it recently I had not thought of the assistance that I was privileged to render Professor Langley, then Secretary of the Smithsonian Institution, during the progress of his efforts to produce a successful flying machine.

"The question whether the aeroplane was invented by Professor Langley or the Wright Brothers is one which I am not competent to answer. It is, however, an historical fact that a machine invented by the former flew on May 6, 1896, while the first one made by the latter did not fly until December 17, 1903, Professor Langley's invention having therefore a priority of more than seven years; and it is a fact that both machines were based on the same idea—the soaring bird.

"While working on his invention Professor Langley frequently asked me for certain data, and in supplying these I was probably contributing in some degree to the success of his undertaking. The soaring bird being, as stated, the basic idea of his experiments, I was called upon to prepare for him careful computations of the wing-surface in square inches (the wings being spread to their full extent), an outline tracing of the bird with wings fully extended, the weight (in the flesh) of the bird, and such like data. These I prepared and submitted to him of the Wandering Albatross, California Condor, Frigate-bird, Turkey Vulture, and other typical soaring birds."

About the time of his rendering this very material service in furtherance of the Langley experiments he was directed by Dr. G. Brown Goode, Assistant Secretary of the Smithsonian Institution, in charge of the National Museum, "to consider of paramount importance among his official duties the task 'of making available, through publication, the results of the ornithological work of the Government, as represented in the collections of the Smithsonian Institution'". Here indeed was an assignment of no mean proportions. Preliminary work on the huge task had been inaugurated in the early eighties, some years even before the first edition of his "Manual" had appeared, though the actual labor "of putting together the vast amount of material accumulated during that [twenty year] period was not begun until September, 1894." The collation of references pertaining to more than three thousand species of birds, verifying citations of original descriptions, measuring many thousands of specimens, and other tedious drudgery connected with the preparation of such a work delayed until 1901 the appearance of Volume 1 of the great "Bulletin of the United States National Museum No. 50. The Birds of North and Middle America: A Descriptive Catalogue of the Higher Groups, Genera, Species, and Subspecies known to Occur in North America, from the Arctic Lands to the Isthmus of Panama, the West Indies and other Islands of the Caribbean Sea, and the Galapagos Archipelago."

It were needless to expatiate on the magnitude, importance, and definitive character of this immense work of reference; students the world over immediately recognize its true position in the bibliography. Such results typify and epitomize the scholarship of an entire school, and in Mr. Ridgway is found the culmination and the final expression of the "Bairdian School of ornithology". With the completion of this classic treatise, eight thick volumes of which have appeared to date, there will

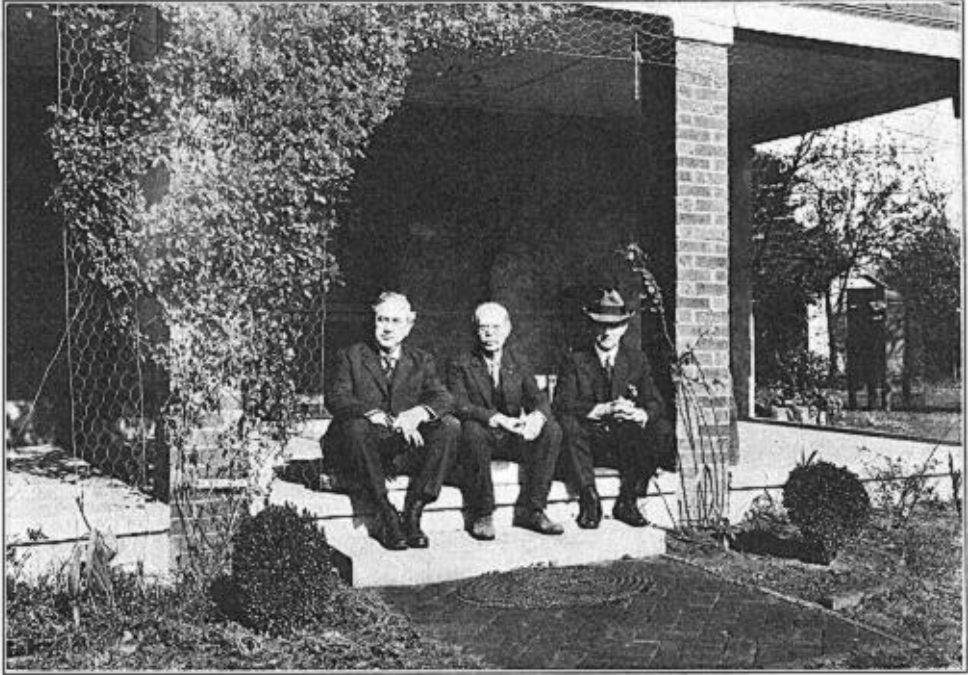


Fig. 44. DR. C. W. RICHMOND, MR. RIDGWAY, AND B. H. SWALES AT LARCHMOUND, NOVEMBER 16, 1924.

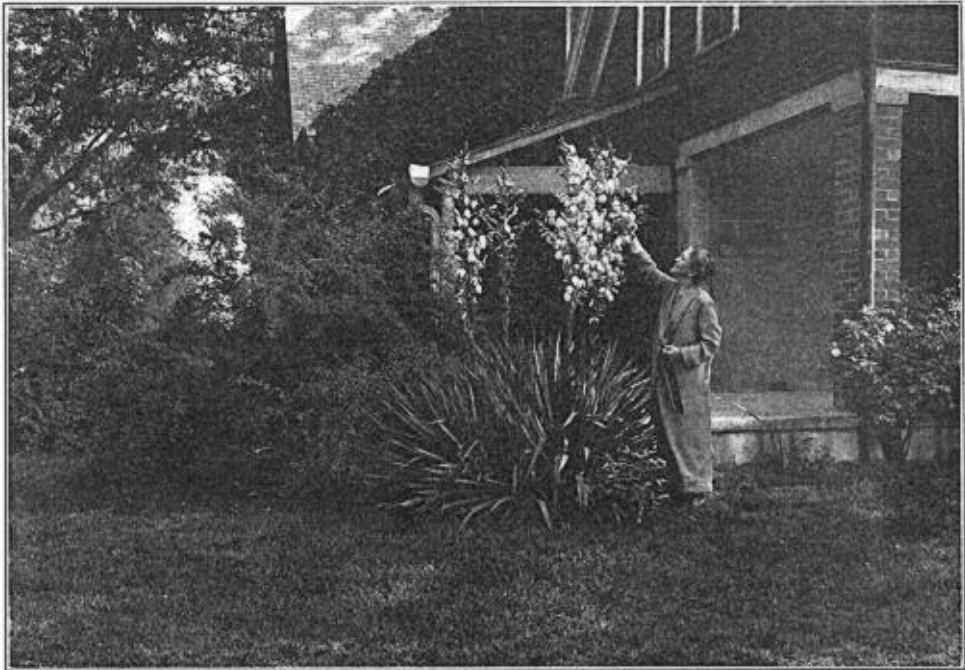


Fig. 45. "THE BOSS OF LARCHMOUND" (MRS. RIDGWAY), JUNE 25, 1926.

have been brought to a close the last and greatest of the six clearly defined epochs in the history of American ornithology, the Bairdian Epoch.

In order to emphasize the extent and profundity of Professor Baird's influence on the life and work of Mr. Ridgway it is necessary only to recall the beautiful and able tribute paid his mentor by the latter in an address read before the Fifth Meeting of the American Ornithologists' Union, and published in "The Auk" (vol. v, 1888, pp. 1-14). There is here expressed an appreciation and esteem, combined with analytical discussion, that are beyond the powers of the present writer to abstract. It needs to be read in full.

Among Professor Baird's many superior qualities may be mentioned his generous



Fig. 46. THE RESIDENCE AT LARCHMOUND.

and kindly consideration for others, and his utter aloofness from all forms of controversy. These traits are also native to the character of his foremost disciple, who has rarely found it necessary to inject personal animus into argument, or to wax disputatious in defense. While others of the time may have failed to emulate the Bairdian precept in these particulars, notably one brilliant savant who has enriched the literature, Mr. Ridgway has never allowed his voice to arise in anger. In neither the master nor pupil did this indicate an inability to use the weapons in their hands, but rather the exercise of tact and judgment in avoiding the aggressive challenge that would make their use necessary.

Mr. Ridgway's extreme dislike for public notice, and his instinctive shrinking from applause, are born of a native humility that has its seat in a spiritual quality of character inculcated by an early orthodox training. The inherent shyness of his youth has also clung to him throughout life. He is earnestly religious, and like other devout evolutionists he finds it unnecessary to argue the soundness of this great un-

assailable doctrine. As illustrating his belief that whatever meed of worldly success is measured out to men is traceable more to Divine beneficence than to any mortal striving, he has recently said: "I have felt strongly that we who have been successful in our respective careers give too much credit to ourselves and not enough to Divine help."

A life interest in ornithology has not prevented his indulgence in other scientific enthusiasms, and it is not surprising that his early love of the virgin forests in which he roamed as a youth eventually bred an ardent interest in botany and horticulture that led to extensive research and writing in this field. This interest has naturally been reflected in the surroundings of the several places of residence he has maintained.



Fig. 47. SUNLIGHT AND SHADOW ON BIRD HAVEN, LATE EVENING, JULY, 1910.

In answer to an inquiry as to the location of these various abodes he replied: "After our marriage in 1875 we lived with my wife's folks (grandparents and two sisters) until 1888, when, yearning for the country and deeming it best to live by ourselves, we moved to Laurel, Maryland, 18 miles from Washington. We remained there two years when, tiring of the trip back and forth, we returned to Washington, and in 1890 bought three corner lots (each 50 by 150 feet) in the newly opened suburb of Brookland, where we built the first home we had ever owned. There, with about half an acre of ground I had opportunity to indulge my liking for horticulture, and by degrees improved the property by the planting of ornamental trees and shrubs until quite a botanical garden was established. After a few years, however, the place proved too small for me; all available space was taken up, and I could find nothing to do but go about, pruning shears in hand, looking for something to 'snip'. On our return from a second trip to Costa Rica we sold the Brookland home and moved into the city again, but after two experiences in apartments bought a new

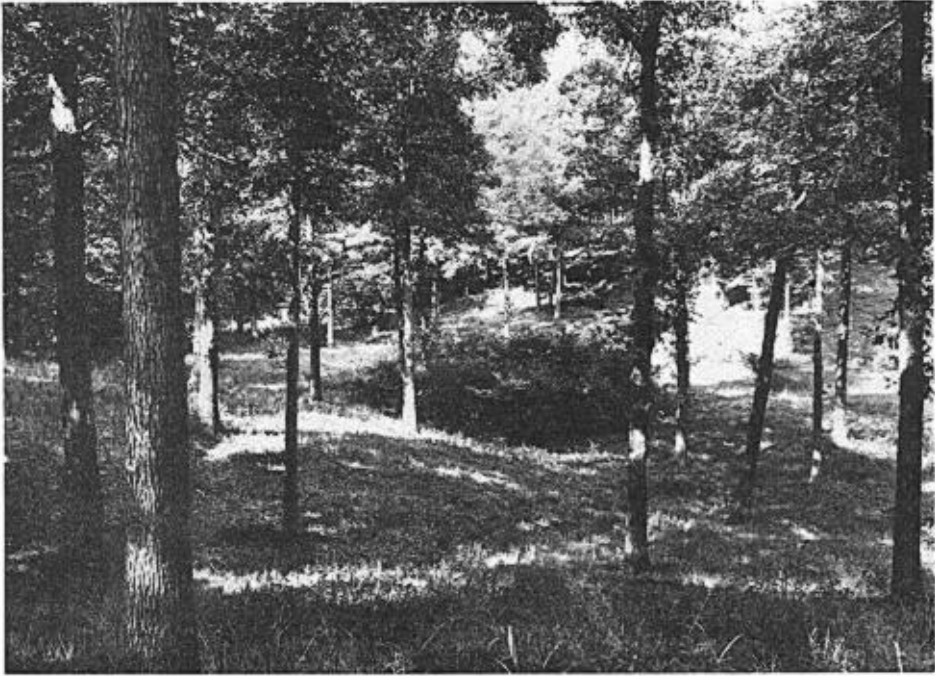


Fig. 48. THE THRASHER AND CARDINAL THICKET ON BIRD HAVEN, JULY, 1910.



Fig. 49. THE LOWER FLOOD-GATE ON BIRD HAVEN, JULY, 1910.



Fig. 50. A SUGAR MAPLE TREE ON BIRD HAVEN, JUNE, 1923.

home which also we sold, and rented a house until we left to take up our residence in Olney, in 1915. Here, with eight acres of ground I find ample opportunity to grow trees, shrubs, and other ornamental or interesting plants to my heart's content. (An account of the building of our home in Brookland was published in *Garden and Forest*, vol. X, 1897, pp. 504-507.)"

The eight acres referred to is the home place known as "Larchmound", located in the south environs of Olney, Illinois, at 1030 South Morgan Street, the accompanying photographs of which will give some idea of the luxuriance of its plantation of trees and shrubs, and the rare loveliness of its broad vistas. There has been erected here by the loving care of appreciative hands an environment reflecting the characters and interests of the two whose home it has been for so many years, and it is a material expression of at least one reason for the forty-five years of homesickness suffered by Mr. Ridgway under the cramped conditions made necessary by city life. It is the realized dream of a great naturalist and a fine and useful citizen.

Larchmound, named from two great larches growing on the gentle slope in front, is more than merely the Ridgway home, as it has become a virtual institution to the Olney region, and has been the source of much and varied discussion in the local press, the Audubon Bulletin of Chicago, Bird-Lore, and other periodical literature originating in Illinois and elsewhere. Without going into details necessary to a full description of its abundant plant and bird life, let it suffice to say that here is a home-sanctuary dedicated to nature alone, and that neither artificiality nor formality enters to mar its natural beauty and impressiveness.

In the autumn of 1906, nine years before he was able to leave Washington for the establishment of a permanent home in the land of his dreams, he had found and

purchased a tract of eighteen acres exactly to his liking. Lying but a few miles from Olney, this abandoned farm land had once been virgin forest of glorious memory, but had been cleared and was under cultivation as late as 1872, since which time it had developed naturally a luxuriant and desirably varied stand of second-growth timber. A small house was erected on the property, and not foreseeing the impracticability of transforming the place into the kind of a home desired, the Ridgways took up their residence there. Mrs. Ridgway gave it the appropriate name of "Bird Haven".

One of its chief attractions to Mr. Ridgway was the fact that he found growing naturally here seventy-four species and varieties of trees, for a long time a record for the north temperate zone. There were more non-coniferous species within this small area than are native to the entire Pacific coast area of North America north of Lower California, and more species of oaks than are found in the whole of New England. Despite the advisability of soon abandoning all efforts at home-making here in favor of Larchmound, the original plan of making Bird Haven an arboretum containing every species of woody plant indigenous to Illinois is being carried out. Progress has been slow owing to Mr. Ridgway's lack of both time and means, though there are now growing in a wild state some 150 species and varieties of trees, 65 species of shrubs, and 30 woody climbers, all native to Illinois. Aside from these there have been successfully propagated exotics too numerous to list, as well as many representatives of the American silva not found elsewhere in the state, and surprising results have been achieved in horticultural experiments in relation to local climatic and soil conditions. The photographs reproduced here will suggest the ideal nature of conditions within the sanctuary for attracting and supporting all forms of wild life, especially birds.

Mr. Ridgway's anxiety regarding the future of this preserve is justified. His farsighted efforts in providing for posterity an important and almost unique educational asset have not been fully appreciated by those Illinois institutions that have been given the opportunity to perpetuate it. His resources have been taxed throughout the years in building up and maintaining Bird Haven, and now that these resources must necessarily be curtailed under the age-limit retirement act of Government, the whole structure is in danger of collapse. As has recently been stated elsewhere, American ornithologists now have the opportunity to do themselves the signal honor of providing a fund of \$35,000 to endow this sanctuary as a permanent memorial to Robert Ridgway, and to obviate the necessity of its commercial exploitation. While it may not be entirely appropriate in this place to discuss the matter, the writer cannot forbear a final and urgent appeal to the many Cooper Club members who have not already reacted to a generous impulse in contributing to the fund, to help forward its completion at the earliest date possible.

On the recent death of Mrs. Ridgway it was feared by his many close friends that Mr. Ridgway would be so broken by grief that his well-known capacity for hard and close work would be seriously impaired. With fine spirit and the fighting courage of his drummer-boy days he is carrying on with old-time vigor, and has attacked new work with the energy that has distinguished his every literary and scientific effort. There is too much remaining for him to accomplish, too large a portion of Bulletin 50 yet to do, too many botanical problems awaiting solution, for posterity to be deprived of important results that he alone can give it. May his years be many, and may he live to see expressed in no doubtful terms the high regard

and warm affection held for him by those to whose intellectual interests his long and useful life has been dedicated!

BIBLIOGRAPHY OF THE PUBLISHED WRITINGS OF ROBERT RIDGWAY

The above memoirs being necessarily brief and more or less disconnected, and manifestly insufficient in scope to warrant the inclusion of a proper evaluation of Mr. Ridgway's voluminous contributions to science, it has been possible only to refer *en passant* to a few of his more outstanding publications. Not until some zoological scholar of the future shall come to correlate the fruits of Robert Ridgway's productive years with the progress and development of ornithological science from the time of Professor Baird down to the completion of Bulletin 50, will it be possible to accord with full perspicuity and justice the eminent position won by him among the distinguished company of American men of science.

In addition to his own works the name of Ridgway will be perpetuated in the literature of science by the following genus, twenty-three species, and nine subspecies.

- Anous stolidus ridgwayi* Anthony, Auk, xv, 1898, p. 36.
Antrostomus ridgwayi Nelson, Auk, xiv, 1897, p. 50.
Certhidea olivacea ridgwayi Rothschild and Hartert, Novit. Zool., vi, 1899, p. 149.
Chasiempis ridgwayi Stejneger, Proc. U.S. Nat. Mus., x, 1887, pp. 87, 89.
Colinus ridgwayi Brewster, Auk, ii, 1885, p. 199.
Cotinga ridgwayi Zeledon, Proc. U.S. Nat. Mus., x, 1887, p. 1.
Cryptoglaux ridgwayi Alfaro, Proc. Biol. Soc. Washington, xviii, 1905, p. 217.
Cyanocitta stelleri ridgwayi Miller and Griscom, Am. Mus. Novit., no. 184, 1925, p. 7.
Dendrocincla ridgwayi Oberholser, Proc. Acad. Nat. Sci. Phila., 1904, p. 458.
Dendrocolaptes certhia ridgwayi Hellmayr, Novit. Zool., xii, 1905, p. 282.
Dryobates scalaris ridgwayi Oberholser, Proc. U.S. Nat. Mus., xli, 1911, pp. 140, 143.
Empidonax ridgwayi Sclater, Proc. Zool. Soc. London, 1887, p. 50.
Falcinellus ridgwayi Allen, Bull. Mus. Comp. Zool., iii, 1876, p. 355.
Glaucidium ridgwayi Sharpe, Ibis, 1875, pp. 55, 58.
Junco ridgwayi Mearns, Auk, vii, 1890, p. 243.
Lagopus ridgwayi Stejneger, Proc. Biol. Soc. Washington, i, 1884, p. 98.
Megascops ridgwayi Nelson and Palmer, Auk, xi, 1894, p. 40.
Myiobius ridgwayi Berlepsch, Auk, v, 1888, p. 457.
Nesotriccus ridgwayi Townsend, Bull. Mus. Comp. Zool., xxvii, 1895, p. 124, plate.
Ornithion imberbe ridgwayi Brewster, Bull. Nutt. Orn. Club, vii, 1882, p. 208.
Pandion ridgwayi Maynard, Amer. Exchange & Mart, iii, no. 6, 1887, p. 69.
Parus inornatus ridgwayi Richmond, Proc. Biol. Soc. Washington, xv, 1902, p. 155.
Pyrrhulagra ridgwayi Cory, Cat. Birds West Indies, 1892, pp. 15, 112, 150.
Ridgwayia Stejneger, Proc. U.S. Nat. Mus., v, 1883, p. 460.
Rupornis ridgwayi Cory, Quart. Journ. Boston Zool. Soc., ii, 1883, p. 46.
Scardafella ridgwayi Richmond, Proc. U.S. Nat. Mus., xviii, 1896, p. 660.
Stelgidopteryx ridgwayi Nelson, Proc. Biol. Soc. Washington, xiv, 1901, p. 174.
Thalurania ridgwayi Nelson, Auk, xvii, 1900, p. 262.
Thryorchilus ridgwayi Bangs, Proc. Biol. Soc. Washington, xix, 1906, p. 108.
Thryothorus ridgwayi Berlepsch, Journ. für Orn., 1889, p. 293.
Urubitinga ridgwayi Gurney, List Diurnal Birds of Prey, 1884, pp. 77, 148.
Xanthornis icterus ridgwayi Hartert, Novit. Zool., ix, 1902, p. 299.
Xenops genibarbis ridgwayi Hartert and Goodson, Novit. Zool., xxiv, 1917, p. 417.

Feeling certain that all of Mr. Ridgway's published work in ornithology was available for reference in the several admirable collections of ornithologica in and near Los Angeles, the writer began some time ago the compilation of titles in the hope of assembling something like a complete bibliography. It was at first planned to give a briefly annotated list of only his ornithological books and papers, chiefly as an aid to

those students who occasionally "discover" facts long ago recorded in his writings; but when Mr. Ridgway's own well ordered card-index became subsequently available the list was enlarged to include his botanical articles and newspaper letters as well. It is believed, therefore, to be entirely complete up to 1903, after which Mr. Ridgway kept no record of his publications. Advantage has been taken of the above mentioned resources to search out all ornithological titles published between 1903 and 1927, and no effort has been made to include any others that have not come to hand incidentally.

It will be noted that most of the major titles listed below have not been abstracted. Owing to the ready accessibility of these indispensable references it has not been deemed necessary to take the space requisite for this purpose. The "History", the "Manual", "Color Standards", and "Bulletin 50" will be at every serious student's elbow.

The Cooper Ornithological Club wishes to thank especially Dr. Charles W. Richmond, through whose thoughtful kindness there was furnished a carefully checked copy, together with an extra copy, of the Ridgway Bibliography published in 1905 by the Indiana University, and who has graciously given of his valuable time to check the list in its final form. To him we are indebted for several important additions and a few corrections.

The thanks of the Club are also due Mr. L. E. Wyman, of the Los Angeles Museum, for invaluable technical aid rendered in preparing a part of the illustrative material reproduced herewith.

1869.

1. The Belted Kingfisher again. < American Naturalist, III, no. 1, March, 1869, pp. 53-54.

Concerning nesting habits, etc., with special reference to conflicting statements of other contributors to the same journal.

2. Notices of certain obscurely known species of American Birds. (Based on specimens in the Museum of the Smithsonian Institution.) < Proc. Acad. Nat. Sci. Phila., June, 1869, pp. 125-135.

Critical review of: 1. The North American Wood Thrushes (pp. 127-129); 2. On the uniformly red species of *Pyrranga*, with description of a new North American species or variety (pp. 129-133); 3. The Smaller Quiscalis of the United States (pp. 133-135). Two species described as new: *Pyrranga cooperi*, p. 130, Los Pinos, New Mexico, and *Quiscalus aeneus*, p. 134, Mount Carmel, Illinois. *Pyrranga azarae* D'Orbigny, is revived as a valid species (p. 132).

3. A true story of a Pet Bird. < American Naturalist, III, no. 6, August, 1869, pp. 309-312.

Account of two domesticated individuals of *Tyrannus verticalis* which were remarkable for extraordinary tameness and intelligence.

1870.

4. A New Classification of the North American FALCONIDAE, with Descriptions of Three New Species. < Proc. Acad. Nat. Sci. Phila., December, 1870, pp. 138-150.

Besides a scheme of classification for the group as a whole, a full diagnosis of each "subfamily" is followed by diagnoses of generic and subgeneric subdivisions of each in the form of an analytical "Key". There are also diagnoses of the genera *Aquila* (p. 141), *Archibuteo* (p. 141), "*Craxi-rax*" (= *Parabuteo*) (p. 142), *Asturina* (p. 142), *Onychotes* (new genus, p. 142), *Halixæetus* (p. 143), *Pandion* (p. 143), *Elanus* (p. 144), "*Naucclerus*" (= *Elanoides*) (p. 144), *Ictinia* (p. 144), *Rostrhamus* (p. 144), and *Polyborus* (p. 145). On p. 146 are given "Comparative Characters of

Hypotriorchis columbarius (Linn.) Gray, *Æsalon* (Gmel.) Gray, and *richardsonii* Ridgway"; and on pp. 148-149 "Differential Characters of American Species of *Tinnunculus*". The following are described as new: *Onychotes*, p. 142, type *O. gruberi* Ridgway; *Onychotes gruberi*, p. 149, "California"; *Falco* (*Hypotriorchis*) *richardsonii*, p. 145, Berthoud's Pass, Colorado; *Falco* (*Tinnunculus*) *leucophrys*, p. 147, Remedios, Cuba.

1872.

5. Relationship of the American White-fronted Owl. < American Naturalist, vi, no. 5, May, 1872, pp. 283-285.
Maintains that the bird in question (*Strix albifrons* Shaw, *Nyctale kirtlandi* Hoy) is the young of *Nyctala acadica* (Gmelin) and not that of *N. tengmalmi* (Gmelin), as stated by Mr. D. G. Elliot in Ibis, 1872. A synoptical "Key" to the species and their synonymy is given on pp. 284-285.
6. New Birds in Southern Illinois. < American Naturalist, vi, no. 7, July, 1872, pp. 430-431.
Vireo bellii, *Peucaea aestivalis*, *Cyanospiza ciris*, *Asturina plagiata*, *Falco mexicanus*.
7. On the Occurrence of a Near Relative of *Aegiothus flavirostris*, at Waltham, Mass. < American Naturalist, vi, no. 7, July, 1872, pp. 433-434.
Named as a new form, *Aegiothus (flavirostris var.) brewsterii*.
8. On the Occurrence of *Setophaga picta* in Arizona. < American Naturalist, vi, no. 7, July, 1872, p. 436.
9. Notes on the Vegetation of the Lower Wabash Valley. I. The Forests of the Bottom-lands. < American Naturalist, vi, no. 11, November, 1872, pp. 658-665.
10. Notes on the Vegetation of the Lower Wabash Valley. II. Peculiar Features of the Bottom-lands. < American Naturalist, vi, no. 12, December, 1872, pp. 724-732.

1872-1873.

11. On the relation between Color and Geographical Distribution in Birds, as exhibited in Melanism and Hyperchromism. < Amer. Journ. Sci., 3rd ser., iv, no. 19, December, 1872, pp. 454-460; 3rd ser., v, no. 25, January, 1873, pp. 39-44.
A discussion of supposed "laws" of geographic color-variation, in support of which examples are cited of species belonging to the genera *Chrysomitris*, *Myiarchus*, *Sayornis*, *Vireosylva*, *Xanthoura*, *Myiodiactes* (= *Wilsonia*) *Geothlypis* (including *Chamaethlypis*), *Cardinalis*, *Carpodacus*, *Sphyrapicus*, and *Cyanura* (= *Cyanocitta*). The following described as new: *Helminthophaga celata* var. *lutescens*, iv, p. 457; *Cardinalis virginianus* var. *coccineus*, v, p. 39; *Cyanura stelleri* var. *frontalis*, v, p. 43.

1873.

12. Notes on the Vegetation of the Lower Wabash Valley. III. The Woods and Prairies of the Upland Portions. < American Naturalist, vii, no. 3, March, 1873, pp. 154-157.
13. [Note on the *Pyrranga roseogularis* of Cabot, By P. L. Sclater, with a description and plate by R. Ridgway.] < Ibis, 3rd ser., iii, no. 10, April, 1873, p. 126, pl. 3.
14. The Prairie Birds of Southern Illinois. < American Naturalist, vii, no. 4, April, 1873, pp. 197-203.
Popular account of birds observed on Fox Prairie, Richland County, Illinois, in June and August, 1871.

15. [Description of *Centronyx ochrocephalus*] < American Naturalist, VII, no. 4, April, 1873, p. 237.
An item by C. E. Aiken on "A New Species of Sparrow", with a description by Ridgway.
16. The relation between the Color and the Geographical Distribution of Birds. < American Naturalist, VII, no. 9, September, 1873, pp. 548-555.
Reply to criticism by Dr. Elliott Coues in American Naturalist, VII, July, 1873, pp. 415-421, of no. 11 above.
17. On some new forms of American Birds. < American Naturalist, VII, no. 10, October, 1873, pp. 602-619.
Catherpes mexicanus var. *conspersus*, Fort Churchill, Nevada; *Helminthophaga celata* var. *lutescens*; *Dendroica vieillotii* var. *bryanti*, Belize, British Honduras; *Dendroica dominica* var. *albilora* Baird, Belize, British Honduras; *Dendroica graciae* var. *decora*, Belize, British Honduras; *Collurio ludovicianus* var. *robustus* Baird, "California"; *C[erthiola] newtoni* Baird, St. Croix, Greater Antilles; *C[erthiola] caboti* Baird, Cozumel Island, Yucatan; *C[erthiola] barbadensis* Baird, Barbados, Lesser Antilles; *C[erthiola] frontalis* Baird, Antigua, Lesser Antilles; *Junco hyemalis* var. *aikeni*, El Paso County, Colorado; *Peucaea aestivalis* var. *arizonae*, Nogales, Sonora; *Cardinalis virginianus* var. *coccineus*.
Besides descriptions or diagnoses of these supposed new forms, *Myiodioctes pusillus* var. *pileolata* (Pallas) is separated as a Pacific coast form (p. 608); an account of the habits of *Catherpes mexicanus* var. *conspersus* is given by Dr. T. M. Brewer (pp. 604-606); and synopses of the genera *Certhiola* Sundevall (pp. 609-613), *Junco* Sclater (pp. 613-615), and *Cardinalis* Bonaparte (pp. 618-619) by Spencer F. Baird.
18. Notes on the Bird Fauna of the Salt Lake Valley and the adjacent portion of the Wahsatch Mountains. < Bull. Essex Inst., v, November, 1873 [February, 1874], pp. 168-173.
19. The Birds of Colorado. < Bull. Essex Inst., v, November, 1873, [February, 1874], pp. 174-195.
Annotated list, with descriptions of the following new forms: *Leucosticte tephrocotis* var. *australis* Allen, Mt. Lincoln, Colorado; *Poospiza bellii* var. *nevadensis*, West Humboldt Mts., Nevada; *Dolichonyx oryzivorus* var. *albinucha*, Ogden, Utah; and *Perisoreus canadensis* var. *capitalis* Baird, Henry's Fork, Wyoming.
20. On some New Forms of American Birds [Spencer F. Baird and Robert Ridgway]. < Bull. Essex Inst., v, December, 1873, pp. 197-201.
In addition to four subspecies described in no. 19 and redescribed here, probably through inadvertence, the following forms are separated: *Ammodromus maritimus* var. *nigrescens*, Indian River, Florida; *Zonotrichia leucophrys* var. *intermedia*; *Perisoreus canadensis* var. *obscurus*; *Cyanocitta ultramarina* var. *arizonae*, Ft. Buchanan, Arizona; *Cyanocitta floridana* var. *sumichrasti*, Orizaba, Vera Cruz, Mexico; *Canace obscura* var. *fuliginosa*, Cascade Mts., Oregon; *Cupidonia cupido* var. *pallidicincta*, Staked Plains, Texas; *Strix flammea* var. *guatemalae*; *Syrnium nebulosum* var. *sartorii*, Mirador, Vera Cruz, Mexico; *Scops asio* var. *floridanus*, Indian River, Florida; *Scops asio* var. *enano* Lawrence, MS; *Falco communis* var. *pealei*, Oregon; *Falco columbarius* var. *suckleyi*, Shoalwater Bay, Washington.
21. Catalogue of the Ornithological Collection in the Museum of the [Boston] Society [of Natural History]. [Spencer F. Baird and Robert Ridgway.] > Part II. Catalogue of Falconidae. < Proc. Boston Soc. Nat. Hist., XVI, December, 1873, pp. 43-72, Appendix, pp. 73-106.
A list of species and specimens, with localities and other data pertaining to the latter.

22. Revision of the Falconine Genera *Micrastur*, *Geranospiza* and *Rupornis*, and the Strigine Genus *Glaucidium*. < Proc. Boston Soc. Nat. Hist., xvi, December, 1873, pp. 73-106.
Glaucidium lansbergii (p. 98) described as new; type locality, Caracas, Venezuela.
23. The Grouse and Quails of North America, Discussed in relation to their variation with habitat. < Forest and Stream, I, no. 19, December 18, 1873, pp. 289-290.
1874.
24. A | History | of | North American Birds | By | S. F. Baird, T. M. Brewer, and R. Ridgway | Land Birds | Illustrated by 64 Plates and 593 Woodcuts | vol. I [-III]. [vignette] | Boston | Little, Brown, and Company | 1874. Small 4to; vol. I, pp. i-xxviii, 1-596, i-vi, cuts, pll. i-xxvi, vol. II, 3 p. ll., pp. 1-590, i-vi, cuts, pll. xxvii-lvi; vol. III, 3 p. ll., pp. 1-560, i-xxviii, ll., cuts, pll. lvii-lxiv. [Plates in one edition were hand-colored. A special edition (published in 1874) contained 36 full-length hand-colored plates.]
The technical matter partly, that relating to the Raptores entirely, by Mr. Ridgway. These volumes have been exhaustively abstracted and commented on by Coues in his Bibliographical Appendix to "Birds of the Colorado Valley", Washington, 1878, pp. 700-702, q.v.
25. [Letter to the editor of Forest and Stream concerning the question, being discussed by correspondents, as to whether snakes hiss.] < Forest and Stream, I, no. 21, January 1, 1874, p. 327.
26. The Nomenclature of American Game Birds. < American Sportsman, III, no. 14, January 3, 1874, pp. 210-211.
27. The Nomenclature of American Game Birds. Part Second. < American Sportsman, III, no. 15, January 10, 1874, pp. 226-227.
28. Catalogue of the Birds ascertained to occur in Illinois. < Ann. Lyc. Nat. Hist. New York, x, January, 1874, pp. 364-394.
Annotated list of 311 species.
29. Notes upon American Water Birds. < American Naturalist, VIII, no. 2, February, 1874, pp. 108-111.
Discusses certain interesting variations on parallel lines of North American and European species. The following described as new: *Ægialitis microrhynchus*, San Francisco, California; *Ægialitis melodus* var. *circumcinctus*, Loup Fork of Platte River, Nebraska; *Ægialitis wilsonius* var. *rufinucha*, Spanishtown, Jamaica; I[bis] *thalassinus*, Oreana, Nevada; *Rallus elegans* var. *obsoletus*, San Francisco, California; *Rallus elegans* var. *tenuirostris* Lawrence, City of Mexico; *Porzana jamaicensis* var. *coturniculus* Baird, Farallone Islands, California; *Anas obscura* var. *fulvigula*, St. Johns River, Florida.
30. Why and how does the Ruffed Grouse drum. < American Sportsman, III, no. 21, February 21, 1874, p. 322.
31. The Lower Wabash Valley, considered in its relation to the Faunal Districts of the Eastern Region of North America; with a synopsis of its Avian Fauna. < Proc. Boston Soc. Nat. Hist., xvi, February 18, 1874, pp. 304-332.
32. A new North American Bird. (T. M. Brewer.) > p. 189 [Description of *Hydrochelidon leucoptera*, from a specimen taken at Lake Koshkonong, Wisconsin.] < American Naturalist, VIII, no. 3, March, 1874, pp. 188-189.
33. On Local Variations in the Notes and Nesting Habits of Birds. < American Naturalist, VIII, no. 4, April, 1874, pp. 197-201.

34. Two Rare Owls from Arizona. < American Naturalist, VIII, no. 4, April, 1874, pp. 239-240.
Syrnium occidentale Xantus and *Micrathene whitneyi* (Cooper), collected near Tucson by Capt. Charles Bendire, U.S.A.
35. A Remarkable Peculiarity of *Centrocercus urophasianus*. < American Naturalist, VIII, no. 4, April, 1874, p. 240.
 Reporting that the Sage Hen possesses a thin membranous stomach instead of the thick muscular gizzard of other Gallinaceae.
36. The Dodo. < Forest and Stream, II, no. 16, May 28, 1874, p. 244.
 Concerning the alleged capture of the Dodo in the Navigator Islands, the bird taken being in reality the Dodo Pigeon (*Didunculus strigirostris*).
37. Notice of a species of Tern new to the Atlantic coast of North America. < American Naturalist, VIII, no. 7, July, 1874, p. 433.
 Considered as nearly related to *Sterna longipennis* Nordmann, but probably a new species and named tentatively *Sterna portlandica* (type locality, Portland, Maine).
38. Birds new to the Fauna of North America. < American Naturalist, VIII, no. 7, July, 1874, pp. 434-435.
Falco gyrfalco Linn. (= *F. peregrinus pealei*), from Kyska, Alaska; and *Numenius femoralis* Peale, from Kadiak, Alaska.
39. Discovery of a Burrowing Owl in Florida. < American Sportsman, IV, no. 14, July 4, 1874, p. 216, fig. 1.
 Description of a new form discovered by N. B. Moore 16 miles East of Sarasota Bay, and named *Speotyto cunicularia* var. *floridana*. An account is given of its habits, together with remarks concerning geographic distribution of North American birds and peculiarities of Florida in this respect.
40. Description of a New Bird from Colorado. < American Sportsman, IV, no. 16 (n.s. no. 42), July 18, 1874, p. 241.
Leucosticte atrata; El Paso County, Colorado.
41. [Opinion (requested by editor) as to question of whether the excessive abundance of grasshoppers in Kansas, etc., has any connection with the decrease in number of game birds in the same districts.] < American Sportsman, IV, no. 16 (n.s. no. 42), July 18, 1874, p. 249.
42. Story of a Wild Goose. < American Sportsman, IV, no. 17 (n.s. no. 43), July 25, 1874, pp. 258-259.
 Account of a domesticated and thoroughly tamed specimen of Hutchins' Goose (*Branta canadensis hutchinsi*) followed by comparative diagnoses of the several geographic forms of *B. canadensis*.
43. An unusually large Wild Goose. < American Sportsman, IV, no. 18 (n.s. no. 44), August 1, 1874, p. 274.
44. Breeding Ground of White Pelicans at Pyramid Lake, Nevada. < American Sportsman, IV, no. 19 (n.s. no. 45), August 8, 1874, p. 289 (cont. p. 297), figs. 1-3.
 Account of a large breeding colony, their habits, moulting of the maxillary appendage, fresh colors of soft parts, etc. The western bird separated as *Pelecanus occipitalis*.
45. Game Birds and Grasshoppers. A Reply to Vix. < American Sportsman, IV, no. 23 (n.s. no. 49), September 5, 1874, p. 356.
 With reference to the question whether excessive abundance of grasshoppers (i.e. locusts) in certain parts of the West was in any degree a result of the destruction of game birds in the same section of the country.
46. [Concerning a strange bird described by a correspondent in a preceding number.

An editorial titled "The Oregon Bird" quoting a paragraph from Baird and Ridgway.] < Forest and Stream, III, no. 6, September 17, 1874, p. 85.

The bird referred to is *Nucifraga columbiana*.

47. The Snow Goose. < American Naturalist, VIII, no. 10, October, 1874, pp. 636-637.
Account given of an individual which joined a flock of domestic geese and became semi-domesticated.
48. List of Birds Observed at Various Localities Contiguous to the Central Pacific Railroad, from Sacramento City, California, to Salt Lake Valley, Utah. < Bull. Essex Inst., VI, no. 10, October, 1874, pp. 169-174; VII, no. 1, January, 1875, pp. 10-40.
Includes a "Catalogue of the Birds ascertained to occur in Nevada" (v, pp. 35-40).
This paper is preliminary to the Report of the Fortieth Parallel Survey published in 1877, q. v.
49. A Contribution to the "Sparrow War". < American Sportsman, v, no. 11, December 12, 1874, p. 161.
50. [Concerning the so-called English Sparrow, *Passer domesticus*. An editorial titled "The English Sparrow" includes matter contributed by R. Ridgway.] < Forest and Stream, III, no. 20, December 24, 1874, p. 309.
1875.
51. Note on *Sterna longipennis* Nordmann. < American Naturalist, IX, no. 1, January, 1875, pp. 54-55.
Reconsideration of *Sterna portlandica* after comparison with *S. longipennis*, the two proving very distinct.
52. A Heronry in the Wabash Bottoms. < American Sportsman, v, no. 20 (n.s. no. 72), February 13, 1875, pp. 312-313.
Account of *Ardea herodias* nesting in gigantic sycamore trees in cypress swamp of Knox County, Indiana, near mouth of White River.
53. Big Trees. < American Sportsman, v, no. 73 (n.s.), February 20, 1875, pp. 321-322; no. 74, February 27, 1875, p. 337; no. 75, March 6, 1875, pp. 353-354; no. 76, March 13, 1875, pp. 369-370.
54. Snow Birds and Little Owls. < American Sportsman, v, no. 25, March 20, 1875, p. 393.
Concerning nomenclature, etc.
55. On *Nisus cooperi* (Bonaparte), and *N. gundlachi* (Lawrence). < Proc. Ac. Nat. Sci. Phila., March 30, 1875, pp. 78-88.
Full descriptions and copious synonymy.
56. On the Buteonine Subgenus *Craxirex* Gould. < Proc. Ac. Nat. Sci. Phila., March 30, 1875, pp. 89-119.
A monograph of the peculiarly American group of Buteones having only three primaries emarginated on inner web; full descriptions and copious synonymy of all the species.
57. More about the Florida Burrowing Owl. < Rod and Gun, VI, no. 1, April 3, 1875, p. 7.
Records capture of a specimen on shipboard about 200 miles off coast of Georgia.
58. Notice of a Very Rare Hawk. < Rod and Gun, VI, no. 5, May 1, 1875, p. 65.
Records a second specimen of *Onychotes gruberi*, presumably from California; the specimen being in a different phase of plumage from the type is fully described.

59. A Monograph of the Genus *Leucosticte*, Swainson; or Gray-crowned Purple Finches. < Bull. U. S. Geol. and Geog. Surv. Terr., no. 2, second series, May 11, 1875, pp. 51-82.
Full descriptions, synonymy, list and measurements of specimens, and historical introduction.
60. Outlines of a Natural Arrangement of the FALCONIDAE. [Read before the Philosophical Society of Washington, April 1875.] < Bull. U. S. Geol. and Geog. Surv. Terr., no. 4, second series, June 10, 1875, pp. 1-7, pls. 11-18.
61. Nesting of the Worm-eating Warbler. < Field and Forest, I, no. 2, July, 1875, pp. 10-12.
Account of nesting habits of *Helmitheros vermivorus* in vicinity of Washington, D. C.
62. The Sparrow Hawk or American Kestrel. < Rod and Gun, VI, no. 14 (n.s. no. 92), July 3, 1875, p. 109.
Biographical and descriptive.
63. Description of a New Wren from Eastern Florida. < American Naturalist, IX, no. 8, August, 1875, pp. 469-470.
Thryothorus ludovicianus (Lath.) var. *miamensis* Ridgw.; Miami, Florida.
64. First Impressions of the Bird Fauna of California, and General Remarks on Western Ornithology. < Scientific Monthly, I, no. 1, October, 1875, pp. 2-13.
65. Our Native Trees. The Tulip Tree—*Liriodendron tulipifera*. < Field and Forest, I, no. 7, December, 1875, pp. 49-53.
Account of its geographic range, appearance, etc., and measurements of large specimens growing in the lower Wabash Valley.
66. Studies of the American Falconidae. Monograph of Genus *Micrastur*. < Proc. Ac. Nat. Sci. Phila., December 28, 1875, pp. 470-502, figs. 1-9.
The following described as new: *Micrastur pelzelni*, p. 494, Sarayacu, upper Ucayali, Eastern Peru.
An account of the habits of *M. melanoleucus*, by Col. A. J. Grayson, is given on pp. 501-502.
- 1876.
67. Second Thoughts on the Genus *Micrastur*. < Ibis, 3rd ser., VI, no. 21, January, 1876, pp. 1-5.
A condensed paper setting forth the results of a study of the group already published in full (cf. no. 66). *M. pelzelni* also described here (p. 4) as a new species.
68. The Genus *Glaucidium*. < Ibis, 3rd ser., VI, no. 21, January, 1876, pp. 11-17, pl. 1.
The author's second revision of the genus (cf. no. 22).
69. Studies of the American Falconidae. Monograph of the *Polybori*. < Bull. U. S. Geol. and Geog. Surv. Terr., no. 6, 2nd ser., February 8, 1876, pp. 451-473, pls. 22-26.
Polyborus lutosus, new species, p. 459; Guadalupe Island, Lower California.
70. [Letter to Walter Van Fleet giving the writer's views concerning effect of introduction of the House Sparrow, or so-called English Sparrow, into the United States.] < Watsontown [Pennsylvania] Record, March 10, 1876.
71. Studies of the American Falconidae. < Bull. U. S. Geol. and Geog. Surv. Terr., II, no. 2, April 1, 1876, pp. 91-182, pls. 30-31.
Monographic, with full descriptions and synonymies of the following genera: *Nisus* Cuvier, *Geranoaetus* Kaup, *Onychotes* Ridgway, *Herpetotheres*

Vieillot, *Heterospizias* Sharpe, *Buteogallus* Lesson, *Busarellus* Lafresnaye, *Thrasaetus* Gray, *Morphnus* Cuvier, *Gampsonyx* Vigors, *Leptodon* Swainson, *Regerhinus* Kaup, *Antenor* Ridgway, *Spiziastur* Lesson, *Urubitinga* Lesson, *Leucopternis* Kaup, and *Elanoides* Vieillot.

Nisus salvini, from Merida, Venezuela, described as new.

72. Ornithology of Guadeloupe [lege Guadalupe] Island, based on notes and collections made by Dr. Edward Palmer. < Bull. U. S. Geol. and Geog. Surv. Terr., II, no. 2, April 1, 1876, pp. 183-195.

The following species and subspecies are described: *Regulus calendula obscurus*, *Salpinctes obsoletus guadeloupensis*, *Thryomanes brevicauda*, *Carpodacus amplus*, *Junco insularis*, *Pipilo maculatus consobrinus*, *Colaptes mexicanus rufipileus*.

73. Notes on the Genus Helminthophaga. < Ibis, 3rd ser., VI, no. 22, April, 1876, pp. 166-171.

74. Regarding *Buteo vulgaris* in North America. < Bull. Nutt. Orn. Club, I, April, 1876, pp. 32-39.

Occurrence considered as doubtful; full description.

75. Maximum length of the Black Snake. < Forest and Stream, VI, no. 20, June 22, 1876, p. 318.

76. Giant Pear Trees. < Forest and Stream, VI, no. 21, June 29, 1876, p. 337.

77. Notes on the Catalpa. *Catalpa bignonioides*. < Field and Forest, II, no. 2, August, 1876, pp. 27-29.

With special reference to its occurrence as a native tree in the lower Wabash Valley. The species is *C. speciosa*, not *C. bignonioides*.

78. The Black Snake again. < Forest and Stream, VII, no. 2, August 17, 1876, p. 20.

Concerning size and habits of the pilot black snake (*Coluber obsoletus* Say).

79. "Sexual, Individual and Geographical Variation" in the Genus *Leucosticte*. < Field and Forest, II, no. 3, September, 1876, pp. 37-43.

Reply to criticism by J. A. Allen (in Bull. U. S. Geol. Surv. Terr., II, no. 4, 1876, pp. 345-350) of the writer's monograph of this genus.

80. On Geographical Variation in *Dendroica palmarum*. < Bull. Nutt. Orn. Club, I, no. 4, November, 1876, pp. 81-87.

Dendroica palmarum hypochrysea (Cambridge, Mass.) is separated.

81. The Little Cypress Swamp of Indiana. < Field and Forest, II, no. 6, December, 1876, pp. 93-96.

Description of a cypress swamp in Knox County, Indiana, near the mouth of White River, with a description of the tree (*Taxodium distichum*), the size to which it attains, associate vegetation, etc.

1877.

82. United States Geological Exploration of the Fortieth Parallel | Clarence King, Geologist-in-charge | — | Part III. | Ornithology. | By | Robert Ridgway. [Washington, Government Printing Office. 1877.] 4to, 1 cover 1., pp. 303-669.

For important data bearing on this item, see p. 392 of the report; also see p. 734 of the Bibliographical Appendix to Coues' "Birds of the Colorado Valley", Washington, Government Printing Office, 1878.

83. On Geographical Variation in *Turdus migratorius*. < Bull. Nutt. Orn. Club, II, no. 1, January, 1877, pp. 8-9.

T[urdus] propinquus.

84. Mrs. Maxwell's Colorado Museum. < Field and Forest, II, no. 2, May, 1877, pp. 195-198; no. 3, June, 1877, pp. 208-214.
A catalogue of the collection of Colorado birds (234 species) exhibited by Mrs. M. A. Maxwell at the Centennial Exposition, Philadelphia, in 1876. Critical notes on *Archibuteo ferrugineus*, with a description of a melanistic specimen. *Scops asio maxwelliae* described.
85. Mrs. Maxwell's Colorado Museum. Additional Notes. < Field and Forest, III, no. 1, July, 1877, p. 11.
86. The Birds of Guadalupe Island, discussed with reference to the present Genesis of Species. < Bull. Nutt. Orn. Club, II, no. 3, July, 1877, pp. 58-66.
1878.
87. Description of a New Wren from the Tres Marias Islands. < Bull. Nutt. Orn. Club, III, no. 1, January, 1878, pp. 10-11.
Thryothorus felix var. *lawrencii*.
88. Three Additions to the Avifauna of North America. < Bull. Nutt. Orn. Club, III, no. 1, January, 1878, pp. 37-38.
Parus cinctus Bodd., *Syrnium lapponicum* Retz., and *Surnia ulula* (Linn.), all from Alaska.
89. Eastward Range of *Chondestes grammaca*. < Bull. Nutt. Orn. Club, III, no. 1, January, 1878, pp. 43-44.
A pair seen in the grounds of the Smithsonian Institution, August 27, 1877.
90. Studies of the American Herodiones. Part I.—A Synopsis of the American Genera of Ardeidae and Ciconiidae; including descriptions of three New Genera and a Monograph of the American Species of the Genus *Ardea* Linnaeus. < Bull. U. S. Geol. and Geog. Surv. Terr., IV, no. 1, February 5, 1878, pp. 219-251, 1 fig.
New genera described are: *Dichromanassa*, type, *Ardea rufa* Boddaert; *Syrigma*, type, *Ardea sibilatrix* Temminck; and *Euxenura*, type *Ardea maguari* Gmelin.
91. On a New Humming Bird (*Atthis ellioti*) from Guatemala. < Proc. U. S. Nat. Mus., I, sig. 1, March 27, 1878, pp. 8-10, 2 figs.
92. Notes on Some of the Birds of Calaveras County, California, and Adjoining Localities. < Bull. Nutt. Orn. Club, III, no. 2, April, 1878, pp. 64-68.
Critical and other notes on forty-seven species.
93. Song Birds of the West. < Harper's New Monthly Magazine, LVI, no. 336, May, 1878, pp. 857-880, 19 woodcuts.
Popular account of many species of western song birds.
94. A Review of the American Species of the Genus *Scops*, Savigny. < Proc. U. S. Nat. Mus., I, sig. 6 [Aug. 6], 1878, pp. 85-117.
Monographic, with full descriptions, synonymy, etc. Following described as new: *Scops brasiliensis cassini*, Mirador, Vera Cruz, Mexico; *Scops cooperi*, Santa Ana, Costa Rica.
95. Notes on Birds Observed at Mount Carmel, Southern Illinois, in the Spring of 1878. < Bull. Nutt. Orn. Club, III, no. 4, October, 1878, pp. 162-166.
Notes on twenty-five species.
96. Notes on the Ornithology of Southern Texas, being a List of Birds observed in the Vicinity of Fort Brown, Texas, from February, 1876, to June, 1878. By James C. Merrill, Assistant Surgeon, U. S. Army. [Edited by R. Ridgway.] < Proc. U. S. Nat. Mus., I, sigs. 8-11, October 9-24, 1878, pp. 118-173, pls. 1-3 (generic outlines).
The editor's share in this paper consists of various critical notes, together with synonymies of *Thryomanes bewicki* var. *leucogaster* Baird,

Vireosylva flavoviridis Cassin, *Molothrus aeneus* (Wagler), *Sturnella magna* var. *mexicana* (Sclater), *Myiarchus erythrocerus* var. *cooperi* (Kaup), *M. e.* var. *erythrocerus* Sclater and Salvin, *Nyctidromus albicollis* (Gmelin), *Amazilia fuscicaudata* (Fraser), *A. yucatanensis* (Cabot), *Buteo albicaudatus* Vieillot, *Aechmoptila albifrons* (Gray), Family Parridae and Genus *Parra* Linnaeus, *Parra gymnostoma* Wagler. All but five of these are accompanied by descriptions.

97. Descriptions of Several New Species and Geographical Races of Birds Contained in the Collection of the United States National Museum. < Proc. U. S. Nat. Mus., I, sig. 16, December 10, 1878, pp. 247-252.

(Exact date of publication not ascertainable, but probably not earlier than December 23, 1878.)

Rhodinocichla rosea schistacea, Sierra Madre de Colima, s.w. Mexico; [*Embernagra rufivirgata*] *crassirostris*, Orizaba, Vera Cruz, Mexico; [*Embernagra rufivirgata*] *verticalis*, Merida, Yucatan; [*Loxigilla violacea*] *bahamensis*, Bahamas; *Anas aberti*, Mazatlan, Sinaloa, Mexico; *Anas wyvilliana* Sclater (adult female) described.

98. Description of Two New Species of Birds from Costa Rica, and Notes on other Rare Species from that Country. < Proc. U. S. Nat. Mus., I, sig. 16, [December 10], 1878, pp. 252-255.

New species are *Thryophilus zeledoni* (Lawrence, MS), type from Talamanca, and *Pseudocolaptes lawrencii*, type from La Palma. Descriptions are given of *Pseudocolaptes boissonneaui* Lafr. and young male of *Carpodectes nitidus* Salv., and critical notes on *Junco vulcani* (Bouc.).

1879.

99. A Partial List of the Birds of Central California. By L. Belding, of Stockton. [Edited by Robert Ridgway.] < Proc. U. S. Nat. Mus., I, sigs. 25-29, March 25-April 30, 1879, pp. 388-449.
100. Descriptions of New Species and Races of American Birds, including a Synopsis of the Genus *Tyrannus*, Cuvier. < Proc. U. S. Nat. Mus., I, sigs. 30-31, April 30-May 2, 1879, pp. 466-486.
- The following supposed new forms described: *Tyrannus luggeri*, type from Demerara, British Guiana; *Lichenops perspicillatus andinus*, type from Santiago, Chili; *Dacnis pulcherrima aureinucha*, type from Ecuador; *Parus rufescens neglectus*, type from Nicasio, Marin Co., California.
101. [Letter to George Bird Grinnell in which reference is made to the bird later described as *Seiurus naevius notabilis*.] < Forest and Stream, XII, no. 16, May 22, 1879, p. 307.
102. On the Use of Trinomials in Zoological Nomenclature. < Bull. Nutt. Orn. Club, IV, no. 3, July, 1879, pp. 129-134.
103. On a New Species of *Peucaea* from Southern Illinois and Central Texas. < Bull. Nutt. Orn. Club, IV, no. 4, October, 1879, pp. 218-222.
- Peucaea illinoensis*, Mount Carmel, Wabash County, Illinois.
104. Note on *Helminthophaga gunnii*, Gibbs. < Bull. Nutt. Orn. Club, IV, no. 4, October, 1879, pp. 233-234.
- Referred to *H. leucobronchialis* Brewster.
105. Henslow's Bunting (*Coturniculus henslowi*) near Washington. < Bull. Nutt. Orn. Club, IV, no. 4, October 1879, p. 238.
- Breeding five miles from Washington, D. C., in Fairfax County, Virginia.
106. [Letter to G. H. Ragsdale concerning *Peucaea illinoensis*.] < Temperance Vidette (newspaper, Gainesville, Texas), October 11, 1879.

1880.

107. On Six Species of Birds new to the Fauna of Illinois, with Notes on other Rare

- Illinois Birds. < Bull. Nutt. Orn. Club, v, no. 1, January, 1880, pp. 30-32.
The following added to the fauna of Illinois: *Zonotrichia querula*,
Buteo harlani, *Platalea ajaja*, *Pelecanus fuscus*, *Graculus mexicanus*, and
Stercorarius buffoni.
108. On Current Objectionable Names of North American Birds. < Bull. Nutt. Orn. Club, v, no. 1, January, 1880, pp. 36-38.
109. Note on *Peucaea illinoensis*. < Bull. Nutt. Orn. Club, v, no. 1, January, 1880, p. 52.
The form reduced to subspecific rank as *P. aestivalis illinoensis*.
110. Late Breeding of the Blue Grosbeak. < Bull. Nutt. Orn. Club, v, no. 1, January, 1880, p. 53.
Young barely able to fly obtained September 13, 1879, at Falls Church, Virginia.
111. Description of an Unusual (?) Plumage of *Buteo harlani*. < Bull. Nutt. Orn. Club, v, no. 1, January, 1880, pp. 58-59.
Description of and critical remarks concerning a specimen from Gainesville, Texas.
112. Revisions of Nomenclature of certain North American Birds. < Proc. U. S. Nat. Mus., III, sig. 1, [March 27], 1880, pp. 1-16.
Nomenclatural criticism on numerous species and the following new genera and subspecies described: *Phalaenoptilus*, type *Caprimulgus nuttalli* Aud.; *Nomonyx*, type *Anas dominica* Linn.; *Perisoreus canadensis fumifrons*, type from Nulato, Alaska; *Strix nebulosa alleni*, type from Clearwater, Florida; *Sturnus naevius notabilis*, Grinnell, MS, type from Black Hills, Wyoming.
113. Notes on the American Vultures (Sarcorhamphidae), with Special Reference to their Generic Nomenclature. < Bull. Nutt. Orn. Club, v, no. 2, April, 1880, pp. 77-84.
114. Description of the Adult Plumage of *Hierofalco gyrfalco obsoletus*. < Bull. Nutt. Orn. Club, v, no. 2, April, 1880, pp. 92-95.
115. The Northern Waxwing (*Ampelis garrulus*) in Southern Illinois. < Bull. Nutt. Orn. Club, v, no. 2, April, 1880, p. 118.
A specimen shot at Villa Ridge, Pulaski County, December 18, 1879, by Prof. S. A. Forbes.
116. [Note concerning the capture of a specimen of the Greenfinch (*Ligurinus chloris*) at Lowville, Lewis County, New York. Refers to a note by Romeyn B. Hough entitled "The Greenfinch (*Ligurinus chloris*) in Northern New York."] < Bull. Nutt. Orn. Club, v, no. 2, April, 1880, p. 119.
117. On the Supposed Identity of *Ardea occidentalis*, Aud., and *A. wurdemanni*, Baird. < Bull. Nutt. Orn. Club, v, no. 2, April, 1880, pp. 123-124.
Considered phases of the same species.
118. On the Molt of the Bill, or Parts of its Covering, in certain Alcidae. < Bull. Nutt. Orn. Club, v, no. 2, April, 1880, pp. 126-127.
119. On *Rallus longirostris*, Bodd., and its Geographical Races. < Bull. Nutt. Orn. Club, v, no. 3, July, 1880, pp. 138-140.
[*Rallus longirostris*] var. *caribaeus*; [*Rallus longirostris*] var. *saturatus* Henshaw, Louisiana.
120. On *Macrorhamphus griseus* (Gmel.) and *M. scolopaceus* (Say). < Bull. Nutt. Orn. Club, v, no. 3, July, 1880, pp. 157-160.
Critical notes, descriptions, and synonymy.
121. On a New Alaskan Sandpiper. < Bull. Nutt. Orn. Club, v, no. 3, July, 1880, pp. 160-163.

Arquatella couesi. *A. maritima* (Brünnich) and *A. ptilocnemis* (Coues) also described.

122. Scops flammeola in Colorado. < Bull. Nutt. Orn. Club, v, no. 3, July, 1880, p. 185.
Specimen taken at Boulder, Colorado, in March, 1875, already recorded in Field and Forest, June, 1877, p. 210.
123. The Little Brown Crane (*Grus fraterculus*, Cassin). < Bull. Nutt. Orn. Club, v, no. 3, July, 1880, pp. 187-188.
Critical notes, synonymy, etc.
124. A Catalogue of the Birds of North America. < Proc. U. S. Nat. Mus., III, sigs. 11-16, August 27-September 15, 1880, pp. 163-246.
A complete catalogue to date of publication, giving both technical and vernacular names, the species systematically arranged and numbered consecutively from 1 to 764. The Appendix, pp. 213-246 including index, contains much critical and explanatory matter.
125. Description of the Eggs of the Caspian Tern (*Sterna caspia*). < Bull. Nutt. Orn. Club, v, no. 4, October, 1880, pp. 221-223.
The nest, eggs, and habits of the species as observed at Cobb's Island, Virginia, are described.
126. Note on *Helminthophaga cincinnatiensis*, Langdon. < Bull. Nutt. Orn. Club, v, no. 4, October, 1880, pp. 237-238.
Considered to be a hybrid of *H. pinus* and *Oporornis formosa*.
127. Catalogue of Trochilidae in the Collection of the United States National Museum. < Proc. U. S. Nat. Mus., III, sig. 20, October 18, 1880, pp. 308-320.
A list of 252 species, with localities represented by each.
1881.
128. Department of the Interior: | U. S. National Museum. | 24 | Bulletin | of the
| United States National Museum. | — | No. 21 | — | Published under
the direction of the Smithsonian Institution. | — | Washington: | Gov-
ernment Printing Office | 1881. |
> [Half title] Nomenclature | of | North American Birds | Chiefly
Contained in the | United States National Museum. | By | Robert Ridg-
way. | — | Washington: | Government Printing Office. | 1881. | 8vo,
pp. 1-94.
This is a revised reprint of the "Catalogue of North American Birds" published in Proc. U. S. Nat. Mus., III, 1880, pp. 163-246, with a few nomenclatural changes and additions to the Appendix, these being enumerated on pp. 5-6. In the Addenda, p. 85, *Melanerpes formicivorus bairdi* is described as a new subspecies.
129. Swainson's Warbler (*Helonaea swainsoni*) in Texas. < Bull. Nutt. Orn. Club, VI, no. 1, January, 1881, pp. 54-55.
130. Southern Range of the Raven on the Atlantic Coast of the United States. < Bull. Nutt. Orn. Club, VI, no. 2, April, 1881, p. 118.
Islands near Cape Charles, Virginia.
131. An Unaccountable Migration of the Red-headed Woodpecker. < Bull. Nutt. Orn. Club, VI, no. 2, April, 1881, pp. 120-122.
132. The Caspian Tern in California. < Bull. Nutt. Orn. Club, VI, no. 2, April, 1881, p. 124.
133. A Hawk New to the United States. < Forest and Stream, XVI, no. 11, April 14, 1881, p. 206.
Buteo fuliginosus Sclater, taken by W. S. Crawford at Oyster Bay,

- Florida, January 28, 1881, and secured for the U. S. National Museum by W. H. Collins of Detroit, Michigan.
134. On a Duck new to the North American Fauna. < Proc. U. S. Nat. Mus., iv, sig. 2, April 22, 1881, pp. 22-24.
Fuligula rustna (Pall.); descriptions and synonymy given, also synonymy and characters of the genus.
135. On *Amazilia yucatanensis* (Cabot) and *A. cerviniventris*, Gould. < Proc. U. S. Nat. Mus., iv, sig. 2, April 22, 1881, pp. 25-26.
Showing by comparison that they are distinct forms.
136. Illinois State Laboratory | of | Natural History | — | Bulletin no. 4 | A Catalogue of the Birds of Illinois. | By | Robert Ridgway. | — | Bloomington, Ill.: | Pantagraph Printing and Binding Establishment. | May, 1881. | > [Half title] A | Revised Catalogue | of the | Birds | Ascertained to Occur in Illinois. | — | By Robert Ridgway. | — | Bloomington, Ill.: | Pantagraph Printing Establishment. | 1881. | 8vo., pp. [163] 164-208.
A list of 341 species and subspecies taken or observed within the State.
137. A Review of the Genus *Centurus*, Swainson. < Proc. U. S. Nat. Mus., iv, sigs. 6-8, July 18, 1881, pp. 93-119.
Monographic. Full descriptions, synonymies, etc., of all the known forms.
138. List of Species of Middle and South American Birds not contained in the United States National Museum. [Corrected to July, 1881.] < Proc. U. S. Nat. Mus., iv, sigs. 11-13, August 20-November 25, 1881, pp. 165-203.
139. On a Tropical Hawk to be added to the North American Fauna. < Bull. Nutt. Orn. Club, vi, no. 4, October, 1881, pp. 207-214.
Two specimens of *Buteo brachyurus* Vieillot, one of them representing the black phase known as *B. fuliginosus* Sclater, taken at Palatka and Oyster Bay, Florida. Full descriptions and synonymy of the species given.
140. List of Special Desiderata among North American Birds. < Proc. U. S. Nat. Mus., iv, sigs. 13-14, November 25-December 8, 1881, pp. 207-223.
- 1882.
141. On an Apparently New Heron from Florida. < Bull. Nutt. Orn. Club, vii, no. 1, January, 1882, p. 1-6.
Ardea wardi, Oyster Bay, Florida. The article includes a discussion of the relationships of the new species with *A. herodias* Linnaeus, *A. wurdemannii* Baird, and *A. occidentalis* Audubon, and of these to one another.
142. Notes on some of the Birds Observed near Wheatland, Knox County, Indiana, in the Spring of 1881. < Bull. Nutt. Orn. Club, vii, no. 1, January, 1882, pp. 15-23.
Dates of arrival of 51 species, and observations concerning 55 species. There is also given a description of the locality.
143. On the Generic Name *Helminthophaga*. < Bull. Nutt. Orn. Club, vii, no. 1, January, 1882, pp. 53-54.
The name *Helminthophaga*, given by Cabanis in 1850 to a group of American Warblers (*Mniotiltidae*) having been used by Bechstein in 1803 for a different group of Oscines, is replaced by the new name *Helminthophila*.
144. The Great Black-backed Gull (*Larus marinus*) from a New Locality. < Bull. Nutt. Orn. Club, vii, no. 1, January, 1882, p. 60.
A specimen from Herald Island, Arctic Ocean, northwest of Bering Straits, subsequently described by Dr. L. Stejneger as *Larus schistisagus*.
145. Additions to the Catalogue of North American Birds. < Bull. Nutt. Orn. Club, vii, no. 1, January, 1882, p. 61.

146. [Correction of an erroneous identification of *Milvulus tyrannus* for *M. forficatus*. (Item under the title "Fork-tailed Flycatcher. Correction." consists of notes by four authors, one of whom is R. Ridgway)] < *Ornith. and Oologist*, vi, no. 12, February, 1882, p. 93.
147. Catalogue of Old World Birds in the United States National Museum. < *Proc. U. S. Nat. Mus.*, iv, sigs. 20-21, March 15-16, 1882, pp. 317-333.
148. Notes on some Costa Rican Birds. < *Proc. U. S. Nat. Mus.*, iv, sig. 21, March 16, 1882, pp. 333-337.
New genus, *Acanthidops*, type, *A. bairdi* Ridgway. New species, *Trogodytes ochraceus* and *Acanthidops bairdi*.
149. [Description of the adult female of *Falco peregrinus* pealei. (Quoted matter from Ridgway, in a paper by J. H. Gurney, on "Notes on a 'Catalogue of the Accipitres in the British Museum' by R. Bowdler Sharpe (1874).") < *Ibis*, 4th ser., vi, no. 22, April, 1882, pp. 297-298, footnote.
150. Description of a new Fly-catcher and a supposed new Petrel from the Sandwich Islands. < *Proc. U. S. Nat. Mus.*, iv, sig. 22, April 6, 1882, pp. 337-338.
Chasiempis sclateri and *Cymochorea cryptoleucura*, both from Waimea, Kauai.
151. Description of a new Owl from Porto Rica. < *Proc. U. S. Nat. Mus.*, iv, sigs. 23-24, April 6-13, 1882, pp. 366-371.
Asio portoricensis. There is included a critical review of *A. accipitrinus* (Pallas) and its allies, together with their diagnoses and full synonymies.
152. Descriptions of two new Thrushes from the United States. < *Proc. U. S. Nat. Mus.*, iv, sig. 24, April 13, 1882, pp. 374-379.
Hylocichla fuscescens salicicola, Fort Bridger, Wyoming, and *Hylocichla aliciae bicknelli*, summit of Slide Mountain, Ulster Co., New York.
153. On two recent additions to the North American Bird Fauna, by L. Belding. < *Proc. U. S. Nat. Mus.*, iv, sig. 26, May 5, 1882, pp. 414-415.
Motacilla ocularis Swinhoe, La Paz, Lower California; *Dendroeca vieillotii bryanti* Ridgway, La Paz, Lower California.
154. Description of Several new Races of American Birds. < *Proc. U. S. Nat. Mus.*, v, sig. 1, June 14, 1882, pp. 9-15.
Methriopterus curvirostris occidentalis, Mazatlan, Sinaloa, Mexico; *Mimus gilvus lawrencei*, Tehuantepec, Oaxaca, Mexico; *Merula flavirostris graysoni*, Tres Marias Islands, Mexico; *Sialia sialis guatemalae*, Guatemala; *Chamaea fasciata henshawi*, Walkers Basin, California; *Perisoreus canadensis nigricapillus*, Labrador.
155. On the Genus *Harporhynchus*, Cabanis, and *Methriopterus*, Reichenbach, with a Description of a New Genus of Miminae. < *Proc. U. S. Nat. Mus.*, v, sig. 3, June 13, 1882, pp. 43-46.
An attempt to give diagnostic characters for the two supposed new genera. New genus described is *Mimodes*, type, *Harporhynchus graysoni* Baird.
156. Notes on the Native Trees of the Lower Wabash and White River Valleys, in Illinois and Indiana. < *Proc. U. S. Nat. Mus.*, v, sigs. 4-6, June 24, 1882, pp. 49-88.
List of the species identified, with measurements, etc.
157. Critical Remarks on the Tree-Creepers (*Certhia*) of Europe and North America. < *Proc. U. S. Nat. Mus.*, v, sigs. 7-8, July 3-21, 1882, pp. 111-116.
[*Certhia familiaris*] *britannica*, England; [*Certhia familiaris*] *montana*, [Apache, Arizona]; [*Certhia familiaris*] *occidentalis*, [Simiahmoo, Washington.]

158. Descriptions of some new North American Birds. < Proc. U. S. Nat. Mus., v, sig. 22, September 11, 1882, pp. 343-346.
Catherpes mexicanus punctulatus, Forest Hill, Placer Co., California;
Lophophanes inornatus griseus, [Iron City, Utah]; *Geothlypis beldingi*, San Jose del Cabo, Lower California; *Rallus beldingi*, Espiritu Santo Island, Lower California.
159. On a Collection of Birds from the Hacienda "La Palma", Gulf of Nicoya, Costa Rica. By C. C. Nutting. With critical notes by R. Ridgway. < Proc. U. S. Nat. Mus., v, sigs. 24-26, September 16, 1882, pp. 382-409.
 Nomenclature and critical remarks by the editor. *Myiarchus nuttingi* described as new.
160. Distribution of the Fish Crow (*Corvus ossifragus*). < Bull. Nutt. Orn. Club, VII, no. 4, October, 1882, p. 250.
 This supposed strictly littoral species found in abundance about Charlottesville, Virginia, at least 60 miles from nearest tide-water.
161. Birds new to or rare in the District of Columbia. < Bull. Nutt. Orn. Club, VII, no. 4, October, 1882, p. 253.
Thryomanes bewicki (Audubon), *Dendroica dominica* (Linnaeus), "*Lanius ludovicianus*" (Gmelin) = *L. l. migrans* Palmer, and "*Ammodramus caudacutus*" (Gmelin) = *A. c. nelsoni* Allen.
162. List of Additions to the Catalogue of North American Birds. < Bull. Nutt. Orn. Club, VII, no. 4, October, 1882, pp. 257-258.
 Twelve species and subspecies previously described by Mr. Ridgway, together with ten described by others, are now added formally to the list.
- 1883.
163. On Le Conte's Bunting (*Coturniculus lecontei*) and other Birds observed in South-eastern Illinois. < Bull. Nutt. Orn. Club, VIII, no. 1, January, 1883, p. 58.
164. The Scissor-tail (*Milvulus forficatus*) at Norfolk, Va. < Bull. Nutt. Orn. Club, VIII, no. 1, January, 1883, p. 59.
 Specimen taken January 2, 1882, now in U. S. Nat. Mus. collection.
165. On some Remarkable Points of Relationship between the American Kingfishers. < Bull. Nutt. Orn. Club, VIII, no. 1, January, 1883, pp. 59-60.
166. Geographical Variation in size among certain Anatidae and Gruidae. < Bull. Nutt. Orn. Club, VIII, no. 1, January, 1883, p. 62.
167. Corrections. < Ornithologist and Oologist, VIII, no. 2, February, 1883, p. 13.
 Correcting errors of identification by a correspondent in a previous issue.
168. Catalogue of a Collection of Birds made in the Interior of Costa Rica by Mr. C. C. Nutting. < Proc. U. S. Nat. Mus., v, sigs. 31-32, March 5, 1883, pp. 493-502.
 No new forms described.
169. Description of a new Warbler from the Island of Santa Lucia, West Indies. < Proc. U. S. Nat. Mus., v, sig. 33, April 3, 1883, pp. 525-526.
Dendroica adelaidae delicata. Characters of the related *D. adelaidae* Baird, of Porto Rico, also given.
170. Description of a supposed new Plover, from Chili. < Proc. U. S. Nat. Mus., v, sig. 33, April 3, 1883, pp. 526-527.
Aegialites albidipetes.
171. Catalogue of a Collection of Birds made at Various Points along the Western Coast of Lower California, north of Cape St. Eugenio. By L. Belding. Edited by R. Ridgway. < Proc. U. S. Nat. Mus., v, sigs. 33-34, April 3, 1883, pp. 527-532.

The list includes three species from the Coronados Islands, seventeen from San Quentin Bay, seven from Santa Rosalia Bay, and nineteen from Cerros Island, none of which was new.

172. Catalogue of a Collection of Birds made near the Southern Extremity of the Peninsula of Lower California. By L. Belding. [Edited by R. Ridgway]. < Proc. U. S. Nat. Mus., v, sigs. 34-35, April 3, 1883, pp. 532-550.
 Editorial matter consists of a bibliography of papers relating to the birds of the cape district, a list of birds obtained at or near Cape St. Lucas by John Xantus, numerous critical notes, descriptions of nests, etc. No new species.
173. On the Genus *Tantalus* Linn., and its Allies. < Proc. U. S. Nat. Mus., v, sig. 35, April 3, 1883, pp. 550-561.
 New genus *Pseudotantalus*, type, *Tantalus ibis* Linnaeus.
174. Catalogue of the Aquatic and Fish-eating Birds Exhibited by the United States National Museum [at the International Fisheries Exhibition, London, 1883]. < Bull. U. S. Nat. Mus. no. 27, 1884 [May, 1883], pp. 139-184.
 Separate as follows: Great International Fisheries Exhibition. | London, 1883. | — | United States of America. | C. | Catalogue | of the | Aquatic and Fish-eating Birds | Exhibited by the | United States National Museum. | By | Robert Ridgway, | Curator, Department of Birds, U. S. National Museum. | — | Washington: | Government Printing Office. | 1883. | 8vo., pp. 1-46. [Issued in May.]
175. Description of a New Petrel from Alaska. < Proc. U. S. Nat. Mus., v, sig. 41, May 29, 1883, pp. 656-658.
Oestrelata fisheri, Saint Paul, Kadiak Island.
176. [Letter to Dr. George Vasey, Botanist of the U. S. Department of Agriculture, inquiring whether there is any foundation for the somewhat prevalent popular belief that wheat will, under certain circumstances, turn into cheat, and Dr. Vasey's reply to the same.] < Olney [Illinois] Republican [newspaper], July 4, 1883.
177. Descriptions of some Birds, Supposed to be Undescribed, from the Commander Islands and Petropaulovski, collected by Dr. Leonhard Stejneger, U. S. Signal Service. < Proc. U. S. Nat. Mus., vi, sig. 6, August 2, 1883, pp. 90-96.
Haliaeetus hypoleucus Stejneger, MS, Bering Island; *Acrocephalus dybowskii* Stejneger, MS, Petropaulovski; *Anorthura pallescens* Stejneger, MS, Bering Island; *Hirundo saturata* Stejneger, MS, Petropaulovski. A [*nthus*] *stejnegeri*, provisional name by Ridgway.
178. Notes on the Black Racer. < Forest and Stream, XXI, no. 4, August 23, 1883, p. 63.
 Concerning habits of the pilot black-snake, mountain black-snake, or black racer (*Coluber obsoletus* Say) and the size to which it attains.
179. The Sparrow Controversy. Some Interesting Facts bearing upon the Question. < Evening Star (daily newspaper, Washington, D. C.), September 8, 1883, p. 2.
180. The Sparrow again. < Evening Star (Washington, D. C.), Sept. 15, 1883, p. 2.
181. On the probable identity of *Motacilla ocularis* Swinhoe and *M. amurensis* Seebohm, with remarks on an allied Supposed Species, *M. blakistoni* Seebohm. < Proc. U. S. Nat. Mus., vi, sig. 9, October 5, 1883, pp. 144-147.
182. Notes upon some Rare Species of Neotropical Birds. < Ibis, 5th ser., I, no. 4, October, 1883, pp. 399-401.
183. [Letter to the editors concerning the U. S. National Museum exhibit of aquatic and fish-eating birds at the London International Fisheries Exhibition.] < Ibis, 5th ser., I, no. 4, October, 1883, pp. 578-580.

184. Descriptions of some New Birds from Lower California, Collected by L. Belding. < Proc. U. S. Nat. Mus., vi, sig. 10, October 11, 1883, pp. 154-156.
Lophophanes inornatus cineraceus, *Psaltriparus grindae* Belding, MS, *Junco bairdi* Belding, MS, all taken at Laguna.
185. *Anthus cervinus* (Pallas) in Lower California. < Proc. U. S. Nat. Mus., vi, sig. 10, October 11, 1883, pp. 156-157.
186. Note on *Merula confinis* (Baird). < Proc. U. S. Nat. Mus., vi, sig. 10, October 11, 1883, pp. 158-159.
Two additional specimens of this rare species, the validity of which had been questioned, were taken at Laguna, Lower California, by Mr. L. Belding in February, 1883. The type, taken at Todos Santos, in 1860, by John Xantus, had remained unique for twenty-three years.
187. "And Finally Bretheren". The English Sparrow Question Again. < Evening Star (daily newspaper, Washington, D. C.), October 20, 1883, p. 2 (?).
188. Additions and Corrections to the List of Native Trees of the Lower Wabash. < Botanical Gazette, viii, no. 12, December, 1883, pp. 345-352.
189. [Report on the] Department of Birds [U. S. National Museum]. < Annual Report Smithsonian Institution for 1882, 1884, pp. 132-135.
1884.
190. Note on *Zenaidura yucatanensis* Lawr. < Auk, i, no. 1, January, 1884, p. 96.
Considers it a probable hybrid of *Z. carolinensis* and *Zenaida amabilis*.
191. On a new *Carpodectes* from South-western Costa Rica. < Ibis, 5th ser., II, no. 5, January, 1884, pp. 27-28, pl. 2.
Carpodectes antoniae Zeledon, MS; Pirris.
192. Notes on three Guatemalan Birds. < Ibis, 5th ser., II, no. 5, January, 1884, pp. 43-45.
Species noticed are: *Chrysomitris atriceps* Salvin, *Ammodromus petenicus* Salvin, and *Spizella pinetorum* Salvin.
193. List of Birds found at Guaymas, Sonora, in December, 1882, and April, 1883. By L. Belding. [Edited by R. Ridgway]. < Proc. U. S. Nat. Mus., vi, sig. 22, January 9, 1884, pp. 343-344.
194. Second Catalogue of a Collection of Birds made near the Southern Extremity of Lower California. By L. Belding. [Edited by R. Ridgway]. < Proc. U. S. Nat. Mus., vi, sig. 22, January 9, 1884, pp. 344-352.
195. Notes on Some Japanese Birds related to North American Species. < Proc. U. S. Nat. Mus., vi, sigs. 23-24, January 18-April 23, 1884, pp. 368-371.
Species discussed are: *Anthus japonicus* Temminck and Schlegel, *Regulus japonicus* Bonaparte, *Anorthura fumigata* (Temminck), *Certhia familiaris* (Linn.), *Ampelis phoenicopterus* (Temminck), *Leucosticte brunneonucha* (Brandt), *Aegiothus linaria* (Linn.), and *Loxia albiventris* Swinhoe.
196. *Ortyx virginianus* not in Arizona. < Forest and Stream, xxii, no. 7, March 13, 1884, p. 124.
197. [Remarks concerning *Phalacrocorax violaceus violaceus* and *P. v. resplendens*.] < Auk, i, no. 2, April, 1884, p. 165.
198. [Remarks concerning two Central American species of birds commonly referred to the genus *Compothlypis* Cabanis.] < Auk, i, no. 2, April, 1884, p. 169.
Genus *Oreothlypis* proposed, with *Compothlypis gutturalis* Cabanis as type.
(Not in Auk Index.)

199. Descriptions of some new North American Birds. < Proc. Biol. Soc. Wash., II, 1885 (author's edition distributed April 10, 1884), pp. 89-95.
Parus atricapillus turneri, St. Michaels, Alaska; *Psaltriparus minimus californicus*, Baird, Shasta Co., California; *Myiarchus mexicanus magister*, Camp Lowell, Arizona; *Myiarchus lawrencei olivascens*, Santa Efigenia, Oaxaca, Mexico; *Pedioecetes phasianellus campestris*, Illinois; *Lophortyx californicus brunnescens*, Santa Barbara, California; *Phalacrocorax dilophus albociliatus*.
200. Description of a new American Kingfisher. < Proc. Biol. Soc. Wash., II, 1885 (author's edition published April 10, 1884), pp. 95-96.
Ceryle superciliosa stictoptera, Sisal, Yucatan.
201. Note on *Psaltriparus grindae*, Belding. < Proc. Biol. Soc. Wash., II, 1885 (author's edition published April 10, 1884), p. 96.
 Concerning an error in the original description.
202. Note on the generic name *Calodromas*. < Proc. Biol. Soc. Wash., II, 1885 (author's edition published April 10, 1884), p. 97.
Calopezus proposed as a substitute.
203. Southern Limit of Quail and Grouse. < Forest and Stream, XXII, no. 13, April 24, 1884, p. 243.
204. On a Collection of Birds from Nicaragua. By Charles C. Nutting. Edited by R. Ridgway. < Proc. U. S. Nat. Mus., VI, April 26, 1884, pp. 372-410.
 New species: *Geothlypis bairdi* Nutting MS, *Oryzoborus nuttingi* Ridgway, *Contopus depressirostris* Ridgway, *Cymbilanius lineatus fasciatus* Ridgway, *G[rallaria] intermedia* Ridgway, *Porzana leucogaster* Ridgway.
205. On some Costa Rican Birds, with Descriptions of Several Supposed New Species. < Proc. U. S. Nat. Mus., VI, sig. 26, April 26, 1884, pp. 410-415.
 New species: *Empidonax viridescens*; *Pittasoma michleri zeledoni*.
206. A Review of the American Crossbills (*Loxia*) of the *L. curvirostra* type. < Proc. Biol. Soc. Wash., II, 1885 (author's edition published April 28, 1884), pp. 101-107.
 New subspecies: *Loxia curvirostra bendirei*, Ft. Klamath, Oregon; *Loxia curvirostra japonica*, Tate-Yama, Japan.
207. Note on *Anas hyperboreus*, Pall., and *Anser albatius*, Cass. < Proc. Biol. Soc. Wash., II, 1885 (author's edition published April 28, 1884), pp. 107-108.
 The two shown to be identical. The larger bird of northwestern North America is separated as *Chen* (or *Anser*) *hyperboreus nivalis* (Forst.).
208. Remarks on the Type Specimens of *Muscicapa fulvifrons*, Giraud, and *Mitreporus pallescens*, Coues. < Proc. Biol. Soc. Wash., II, 1885 (author's edition published April 28, 1884), pp. 108-110.
Empidonax fulvifrons (Giraud) divided into three geographic subspecies: *E. f. fulvifrons* (Giraud), northeastern Mexico; *E. f. pallescens* (Coues), Arizona and New Mexico; *E. f. rubicundus* (Cabanis), southern Mexico.
209. Note Regarding the Earliest Name for *Carpodacus haemorrhous* (Wagler). < Proc. Biol. Soc. Wash., II, 1885 (author's edition published April 28, 1884), pp. 110-111.
Carpodacus frontalis mexicanus proposed.
210. Memoirs of the Museum of Comparative Zoology | at Harvard College. | — | VOL. XII [- XIII]. | — | The | Water Birds | of | North America. | By | S. F. Baird, T. M. Brewer, | and | R. Ridgway. | Issued in Continuation of the | Publications of the Geological Survey of California. | J. D. Whitney, State Geologist. | VOL. I [- II]. | Boston: | Little, Brown, and Company. | 1884. Small 4to; VOL. I, pp. i-xi, 1-537, cuts, [published June, 1884]; vol. II, 1 p. 1, pp. 1-552, cuts, [published August, 1884.]

The technical matter largely written and entirely revised by Robert Ridgway. In one edition the cuts of heads in the text are hand-colored.

211. [Note concerning the Correct Specific Name of *Cypselus saxatilis* Woodhouse.] < Auk, I, no. 3, July, 1884, p. 230, footnote.
Prefers Prof. Baird's name *melanoleucus* (cf. vol. IX, Pacific R. R. Reports, p. 143).
[Not in Auk Index.]
212. Remarks upon the Close Relationship between the White and Scarlet Ibises (*Eudocimus albus* and *E. ruber*). < Auk, I, no. 3, July, 1884, pp. 239-240.
213. Note on *Astur atricapillus striatulus*. < Auk, I, no. 3, July, 1884, pp. 252-253.
Nomenclatural. Reasons given for retaining the subspecific name *striatulus* instead of adopting *henshawi*, lately proposed by E. W. Nelson.
214. On the Possible Specific Identity of *Buteo cooperi* Cass. with *B. harlani* (Aud.). < Auk, I, no. 3, July, 1884, pp. 253-254.
215. Probable Breeding of the Red Crossbill (*Loxia curvirostra americana*) in central Maryland. < Auk, I, no. 3, July, 1884, p. 292.
216. The Probable Breeding Place of *Passerculus princeps*. < Auk, I, no. 3, July, 1884, pp. 292-293.
The supposition that Sable Island, Nova Scotia, was the breeding ground was subsequently confirmed. Cf. Merriam, Auk, October, 1884, p. 390.
217. Note on *Selasphorus torridus* Salvin. < Proc. U. S. Nat. Mus., VII, sig. 1, July 8, 1884, p. 14.
218. *Melanetta fusca* (Linn.) in Alaska. < Proc. U. S. Nat. Mus., VII, sig. 5, July 25, 1884, p. 68.
An error of identification, the species being *M. deglandi* (Bonaparte).
219. Description of a New Snow Bunting from Alaska. < Proc. U. S. Nat. Mus., VII, sig. 5, July 25, 1884, pp. 68-70.
Plectrophenax hyperboreus, St. Michaels.
220. On a Collection of Birds made by Messrs. J. E. Benedict and W. Nye, of the United States Fish Commission Steamer "Albatross". < Proc. U. S. Nat. Mus., VII, sig. 11, September 1, 1884, pp. 172-180.
Lists of fifteen species from St. Thomas, Greater Antilles; six from Curaçao, Dutch West Indies; eight from Sabanilla, Colombia; and four from Old Providence Island, Caribbean Sea. Following described as new: *Mimus gilvus rostratus*, *Dendroica rufopileata*, *Icterus curasoensis*, *Zenaidura macroura vinaceorufa*, *Certhiola tricolor*, *Vireosylva grandior*, *Vireo approximans*, *Elainea cinerescens*.
221. Description of a New Species of Field-sparrow from New Mexico. < Proc. U. S. Nat. Mus., VII, sig. 17, September 19, 1884, p. 259.
Spizella wortheni, type from Silver City.
222. Another Kirtland's Warbler from Michigan. < Auk, I, no. 4, October, 1884, p. 389.
223. [Note concerning Bird Exhibit of the U. S. National Museum at the New Orleans Exposition.] < Auk, I, no. 4, October, 1884, p. 403.
[Not in Auk Index.]
224. [Note relative to extent of Bird Collection in the U. S. National Museum.] < Auk, I, no. 4, October, 1884, pp. 403-404.
225. Description of a New Species of Coot from the West Indies. < Proc. U. S. Nat. Mus., VII, sig. 23, October 3, 1884, p. 358.
Fulica caribaea.

226. The Bird-Collection of the U. S. National Museum. < Science, iv, no. 95, November 28, 1884, p. 497.
Announcing that the catalogue entries of specimens now number 100,000. A brief history of the collection is given.
- 1885.
227. Grouse and Mallard Plumage. < Forest and Stream, xxix, no. 24, January 5, 1885, p. 463.
Concerning sexual difference in the Ruffed Grouse (*Bonasa umbellus*) and seasonal change of plumage in the male of the Mallard (*Anas boschas*) and other Ducks.
228. [Extract from letter to the editor concerning the name, etc., of *Spizella wortheni*.] < Ornithologist and Oologist, x, no. 2, February, 1885, p. 24.
229. Description of Some New Species of Birds from Cozumel Island, Yucatan. < Proc. Biol. Soc. Wash., III, 1886 (author's edition published February 20, 1885), pp. 21-24. Cf. no. 259.
Harporhynchus guttatus, *Troglodytes beani*, *Dendroica petechia rufivertex*, *Vireosylvia cinerea*, *Vireo bairdi*, *Cyclorhis insularis*, *Spindalis benedicti*, *Euethia olivacea intermedia*, *Centurus leei*, *Attila cozumelae*, *Lampornis thalassinus*, *Chlorostilbon forficatus*, *Empidonax gracilis*, *Myiarchus platyrhynchus*, and *Cardinalis saturatus*.
230. Description of a New Race of the Red-shouldered Hawk from Florida. < Proc. U. S. Nat. Mus., VII, sig. 33, February 25, 1885, p. 514.
Buteo lineatus alleni, type from Tampa.
231. On Two Hitherto Unnamed Sparrows from the Coast of California. < Proc. U. S. Nat. Mus., VII, sig. 33, February 25, 1885, pp. 516-518.
Passerculus beldingi, type from San Diego; *Passerculus sandwichensis bryanti*, type from Oakland.
232. [Letter to Dr. J. B. Holder, in answer to request for criticism of a paper describing a bird called Sky-lark by the writer.] < Examiner (newspaper, New York), March 19, 1885, p. 107.
Shore Lark, sometimes called American Sky-lark.
233. The European Sparrow. < American Field, xxiii, no. 13, March 28, 1885, p. 295.
A letter to Capt. W. McK. Heath condemnatory of *Passer domesticus* and approving of its complete extermination in the United States.
234. On *Buteo harlani* (Aud.) and *B. cooperi* Cass. < Auk, II, no. 2, April, 1885, pp. 165-166.
Their specific distinctness upheld.
235. Remarks on the Californian Vulture (*Pseudogryphus californianus*). < Auk, II, no. 2, April, 1885, pp. 167-169.
Measurements, etc.
236. Note on *Sarcorhamphus aequatorialis* Sharpe. < Auk, II, no. 2, April, 1885, pp. 169-171.
Shown to be the young of *S. gryphus* (Linnaeus), which requires seven years for attainment of adult plumage.
237. Gurney's 'List of the Diurnal Birds of Prey'. < Auk, II, no. 2, April, 1885, pp. 203-205.
Review.
238. Where did it come from? < Forest and Stream, xxiv, no. 11, April 9, 1885, p. 204.
Account of Prairie-hen (*Tympanuchus americanus*) shot on the Virginia side of the Potomac, near Washington, March 17, 1885.

239. On *Oestrelata fisheri* and *Oe. defilippiana*. < Proc. U. S. Nat. Mus., VIII, sig. 2, May 6, 1885, pp. 17-18.
The distinctive characters of the two shown by comparative diagnoses.
240. *Icterus cucullatus*, Swainson, and its Geographical Variations. < Proc. U. S. Nat. Mus., VIII, sig. 2, May 6, 1885, pp. 18-19.
New subspecies: *Icterus cucullatus igneus*, Yucatan, and *Icterus cucullatus nelsoni*, Tucson, Arizona.
241. Description of a New Species of *Contopus* from Tropical America. < Proc. U. S. Nat. Mus., VIII, sig. 2, May 6, 1885, p. 21.
Contopus pileatus, locality unknown.
242. Note on the *Anser leucopareius* of Brandt. < Proc. U. S. Nat. Mus., VIII, sig. 2, May 6, 1885, pp. 21-22.
Identified as a synonym of *Anser hutchinsii* Swainson and Richardson, and *A. (or Bernicla) leucopareia* described as *Branta minima* [St. Michaels, Alaska].
243. Description of a New Warbler from Yucatan. < Proc. U. S. Nat. Mus., VIII, sig. 2, May 6, 1885, p. 23.
Granatellus sallaei boucardi.
244. Descriptions of two New Birds from Costa Rica. < Proc. U. S. Nat. Mus., VIII, sig. 2, May 6, 1885, pp. 23-24.
Cyanocorax cucullatus and *Vireolanius pulchellus verticalis*.
245. Descriptions of Three Supposed New Honey Creepers from the Lesser Antilles, with a Synopsis of the Species of the Genus *Certhiola*. < Proc. U. S. Nat. Mus., VIII, sig. 2, May 6, 1885, pp. 25-30.
Certhiola finschi, Dominica; *Certhiola sundevalli*, Guadeloupe; *C[erthiola] sancti-thomae*, St. Thomas.
246. On *Cathartes burrovianus*, Cassin, and *C. urubitinga*, Pelzeln. < Proc. U. S. Nat. Mus., VIII, sig. 3, May 6, 1885, pp. 34-36.
Shown to be identical, full synonymy being given.
247. On *Onychotes gruberi*. < Proc. U. S. Nat. Mus., VIII, sig. 3, May 6, 1885, pp. 36-38.
Shown to be the same as *Buteo solitarius* Peale (Hawaiian species).
248. Remarks on the Type Specimen of *Buteo oxypterus*, Cassin. < Proc. U. S. Nat. Mus., VIII, sig. 5, May 6, 1885, pp. 75-77.
Referred to *B. swainsoni* Bonaparte.
249. Description of a New Species of Boat-billed Heron from Central America. < Proc. U. S. Nat. Mus., VIII, sig. 6, June 19, 1885, pp. 93-94.
Canceroma zeledoni, Mazatlan, Sinaloa, Mexico.
250. Description of a New Hawk from Cozumel. < Proc. U. S. Nat. Mus., VIII, sig. 6, June 19, 1885, pp. 94-95.
Rupornis gracilis.
251. On *Peucaea mexicana* (Lawr.) a Sparrow New to the United States. < Proc. U. S. Nat. Mus., VIII, sig. 7, June 19, 1885, pp. 98-99.
Considered distinct from both *P. botteri* Sclater and *P. arizonae* (Ridgway), specimens from Ft. Brown, Texas.
252. A Review of the American "Golden Warblers". < Proc. U. S. Nat. Mus., VIII, sig. 22, September 17, 1885, pp. 348-350.
Analytical Key. [*Dendroica bryanti*] *castaneiceps* (La Paz, Lower California) described as new.
253. Some Emended Names of North American Birds. < Proc. U. S. Nat. Mus., VIII, sig. 23, September 17, 1885, pp. 354-356.

A list of names of seventy-seven species and subspecies emended in conformity with the Code of Nomenclature of the American Ornithologists' Union, or in accordance with rulings of a committee of the Union with reference to generic limits, etc.

254. Description of a New Cardinal Grosbeak from Arizona. < Auk, II, no. 4, October, 1885, pp. 343-345.
Cardinalis cardinalis superbis, type from Fuller's Ranch, Arizona.
255. Helminthophila leucobronchialis. < Auk, II, no. 4, October, 1885, pp. 359-363.
256. On Junco cinereus (Swains.) and its Geographical Races. < Auk, II, no. 4, October, 1885, pp. 363-364.
J[unco] cinereus palliatus separated. Type from Mt. Graham, Arizona.
257. A New Petrel for North America. < Auk, II, no. 4, October, 1885, pp. 386-387.
Pelagodroma marina (Latham).
258. Description of an Apparently New Species of Dromococcyx from British Guiana. < Proc. U. S. Nat. Mus., VIII, sig. 35, October 26, 1885, p. 559.
Dromococcyx gracilis.
259. Catalogue of a Collection of Birds made on the Island of Cozumel, Yucatan, by the Naturalists of the U. S. Fish Commission Steamer Albatross, Capt. Z. L. Tanner, Commander. < Proc. U. S. Nat. Mus., VIII, October 26-November 21, 1885, pp. 560-583.
A list of sixty-four species. Those previously briefly characterized as new (cf. Proc. Biol. Soc. Wash., III, 1884-1885, pp. 21-24) are here described in detail, while more or less copious critical notes are given for the remaining species. *Centurus rubriventris pygmaeus* is described as new. Cf. no. 229.
260. [Report on the Department of Birds, U. S. National Museum, 1883.] < Ann. Rep. Smithsonian Institution for 1883 (1885), pp. 220-225.
Also < Rep. U. S. National Museum for 1883 (1885), pp. 60-65 (the separate showing this pagination).
261. Report upon the Department of Birds in the U. S. Museum, 1884. < Ann. Rep. Smithsonian Institution for 1884 (1885), pt. II, pp. 143-155.
- 1886.
262. A | Nomenclature of Colors | for Naturalists, | and | Compendium of Useful Knowledge | for Ornithologists. | By | Robert Ridgway, | Curator, Department of Birds, United States National Museum. | With Ten Colored Plates and Seven Plates | of Outline Illustrations. | Boston: | Little, Brown, and Company. | 1886. | Small 8vo, pp. [1-9] 10-129, pl. I-XVII.
This desirable little volume has long been out of print and has of late years become quite difficult to obtain. While the color feature indicated in the title has been superseded by a more exhaustive treatment in the author's definitive later work (cf. no. 510), there is here found in a compact form a mass of additional information useful to the working student. The carefully executed plates illustrating this portion of the text are of unusual interest. There is a comprehensive glossary of technical terms used in descriptive ornithology, together with handy tables for use in measuring specimens by both accepted standards.
263. On the Proper Name for the Prairie Hen. < Auk, III, no. 1, January, 1886, pp. 132-133.
Cupidonia americana.
264. The Scissor-tailed Flycatcher (*Milvulus forficatus*) at Key West. < Auk, III, no. 1, January, 1886, p. 134.
265. The Vernacular Name of *Plectrophenax hyperboreus*. < Auk, III, no. 1, January, 1886, p. 135.

- Suggests naming the species McKay's Snowflake in memory of Mr. Charles Leslie McKay who sacrificed his life in the prosecution of natural history investigations in Alaska, and in whose collections the new species was first noticed.
266. Arizona Quail. < Forest and Stream, xxv, no. 25, January 14, 1886, p. 484.
With reference to the identity of *Colinus ridgwayi* Brewster with birds identified by the writer as *C. graysoni* (Lawrence).
267. [Under the pseudonym "Patoka".] Birds and Bonnets. < Forest and Stream, xxvi, no. 1, January 28, 1886, p. 5.
268. Is the Dodo an Extinct Bird? < Science, vii, no. 160, February 26, 1886, p. 190.
Cf. no. 36.
269. [Letter to Dr. B. H. Warren giving by request the writer's views concerning the food-habits of Hawks and Owls with particular reference to the question as to whether these birds should or should not be protected by State laws.] < Daily Local News [West Chester, Pa.], xiv, no. 91, March 5, 1886, p. —.
270. 'Water Birds of North America'—'A Few Corrections' Rectified. < Auk, III, no. 2, April, 1886, pp. 266-268.
Reply to a criticism by Dr. J. G. Cooper in Auk, III, January, 1886, pp. 124-126.
271. *Tringa damacensis* in Alaska; a Sandpiper new to the North American Fauna. < Auk, III, no. 2, April, 1886, p. 275.
272. Discovery of the Breeding Place of McKay's Snowflake (*Plectrophenax hyperboreus*). < Auk, III, no. 2, April, 1886, pp. 276-277.
Hall Island, Bering Sea.
273. On two Abnormally Colored Specimens of the Bluebird (*Sialia sialis*). < Auk, III, no. 2, April, 1886, pp. 282-283.
274. [Note announcing the departure of the Fish Commission Steamer 'Albatross' on a scientific cruise among the Bahamas and other islands of the West Indies.] < Auk, III, no. 2, April, 1886, p. 286.
275. On the Glaucous Gull of Bering's Sea and contiguous waters. < Auk, III, no. 3, July, 1886, pp. 330-331.
Described as a new species, *Larus barrovianus*; type from Point Barrow, Alaska.
276. Description of a New Species of Oyster-catcher from the Galapagos Islands. < Auk, III, no. 3, July, 1886, p. 331.
Haematopus galapagensis; Chatham Island.
277. Preliminary Descriptions of Some New Species of Birds from Southern Mexico, in the Collection of the Mexican Geographical and Exploring Commission. < Auk, III, no. 3, July, 1886, pp. 331-333.
Amphispiza ferrariperezi, *Pipilo submaculatus*, *Pipilo complexus*, *Anas diazi*, and *Philortyx personatus*. Later described in detail in Proc. U. S. Nat. Mus., ix, 1886, pp. 143, 146, 147, 171, and 176.
278. Descriptions of Two New Species of Birds Supposed to be from the Interior of Venezuela. < Auk, III, no. 3, July, 1886, p. 333.
Pyroderus masoni and *Aulacorhamphus dimidiatus*.
279. Description of a New Species of Elf Owl from Socorro Island, Western Mexico. < Auk, III, no. 3, July, 1886, pp. 333-334.
Micrathene graysoni. Described later more fully in Proc. U. S. Nat. Mus.
280. Description of a New Genus of Oceanitidae. < Auk, III, no. 3, July, 1886, p. 334.
Pealea; type, *Thalassidroma lineata* Peale. Named "in honor of Mr.

Titian R. Peale, the very accomplished naturalist of the United States Exploring Expedition under Commander Wilkes”.

281. Description of Four New Species of Birds from the Bahama Islands. < Auk, III, no. 3, July, 1886, pp. 334-337.
Geothlypis coryi, *Geothlypis tanneri*, *Centurus nyeanus*, and *Centurus blakei*.
282. Description of a New Genus of Tyrannidae from Santo Domingo. < Auk, III, no. 3, July, 1886, p. 382-383.
Lawrencia; type, *Empidonax nanus* Lawrence. “Dedicated to Mr. George N. Lawrence . . . America’s veteran ornithologist, as a slight token of esteem and also in recognition of his important services to Neotropical ornithology”.
283. [Remarks concerning certain “Corrections” of alleged errors in “Water Birds of North America”.] < Auk, III, no. 3, July, 1886, pp. 403-404.
284. Descriptions of Some New Species of Birds Supposed to be from the Interior of Venezuela. < Proc. U. S. Nat. Mus., IX, sig. 6, September 17, 1886, pp. 92-94.
 Cf. no. 278.
285. On *Aestrelata sandwichensis* Ridgw. < Proc. U. S. Nat. Mus., IX, sig. 6, September 17, 1886, pp. 95-96.
286. Catalogue of Animals Collected by the Geographical and Exploring Commission of the Republic of Mexico. By Fernando Ferrari-Perez, Chief of the Natural History Section. > II. — Birds. By F. Ferrari Perez. With Descriptions of Five New Species, and Critical Remarks on Others of Great or Less Rarity or Interest. By Robert Ridgway. < Proc. U. S. Nat. Mus., IX, sigs. 8-12, September 25, October 2, 1886, pp. 130-182.
 The species briefly characterized under the title listed above as no. 277 are here described in detail, as well as *Micrathene graysoni*.
287. [Description of the young in first plumage of *Sterna fuliginosa*.] < Auk, III, no. 4, October, 1886, pp. 433-434.
288. Description of a New Species of the Genus *Empidonax* from Guatemala. < Ibis, 5th ser., IV, no. 16, October, 1886, pp. 459-460.
Empidonax salvini; Calderas, Volcan de Fuego.
289. On *Empidochanes fuscatus* (Max.) and *Empidonax brunneus* Ridgw. < Ibis, 5th ser., IV, no. 16, October, 1886, pp. 460-461.
 The distinctness of the two birds maintained. *Empidochanes vireoninus* proposed for a species from Tobago, if distinct from *E. oliva* (Bodd.). A Key to the species of *Empidochanes* is given.
290. On the Species of the Genus *Empidonax*. < Ibis, 5th ser., IV, no. 16, October, 1886, pp. 461-468.
 A synopsis of all the known species, the characters of which are given in an analytical Key.
291. Description of a Melanistic Specimen of *Buteo latissimus* (Wils.). < Proc. U. S. Nat. Mus., IX, sig. 16, October 22, 1886, pp. 248-249.
292. Report on the Department of Birds in the U. S. National Museum, [January 1 to June 30] 1885. < Ann. Rep. Smithsonian Institution (Report of U. S. National Museum) for 1885 (1886), pp. 85-91.
- 1887.
293. A | Manual | of | North American Birds. | By | Robert Ridgway. | — |
 Illustrated by 464 Outline Drawings of the | Generic Characters. | — |
 Philadelphia: | J. B. Lippincott Company. | 1887. Royal 8vo, pp. [i-ii]
 -xi, 1-631, pll. I-CXXIV, frontispiece portrait of Spencer F. Baird.

This standard reference, long cherished in the plans of Professor Baird, reflects the high standards and exacting scholarship inculcated in his foremost disciple. It is without question a model of its kind, and though long out of date from a nomenclatural standpoint it remains today probably the most valuable work on identification to the field student of North American birds. Its unparalleled compactness, its lucidity of arrangement, reliability, and treatment of closely allied extralimital species are features particularly valued and appreciated by the collector. This Manual has quite obviously exerted a wide influence on subsequent systematic treatises on the North American avifauna.

A revised, corrected, and emended edition with a new preface and appendix was published in 1896 (cf. no. 424). There were two or three later printings from the plates of this Second Edition, and though they were designated by the publisher as the Third and Fourth Edition respectively they are entirely without change and textually identical with the Second. The so-called Third Edition is excessively rare, and the compiler has been unable to trace a copy, or even to ascertain the date of its issue. The Lippincott Company advises merely that there was a Third Edition, and it is inferred that the stock was distributed.

The Author himself says: "In reality there were, so far as I know, only two editions, that is to say only one in addition to the original issue that involved changes in the text. This was the edition of 1896, and was rendered necessary by some serious errors, involving some of the Hawks, if I remember correctly, caused by the printer's transposition of certain paragraphs, rendering the keys unintelligible or unworkable. There were several reprints from this Second Edition, and, finally, what was virtually a reprint (that is to say without change in the text) but with Professor Baird's portrait and the dedication to him omitted. As to this last I have no knowledge further than that such an issue was published."

Four new subgenera and 39 new species and subspecies were introduced: *Neofalco*, type, *Falco albigularis* Daud.; *Nuttallornis*, type, *Tyrannus borealis* Swains.; *Burrica*, type, *Fringilla mexicana* Müll.; *Chamaethlypis*, type, *Geothlypis poliocephala*; *Ortalis vetula pallidiventris*, Yucatan; *Oidemia (Melanitta) stejnegeri*, Kamtschatka to Japan; *Coccyzus americanus occidentalis*; *Coccyzus maynardi*; *Dryobates villosus maynardi*, Bahamas (= *Picus insularis* Mayn., nec Gould); *Dryobates scalaris sinaloensis*, Western Mexico; *Dryobates arizonae fraterculus*, Southwestern Mexico; *Iache lawrencei* Berlepsch, MS, Tres Marias; *Platypsaris insularis*, Tres Marias; *Myiodynastes audax insolens*, Southeastern Mexico; *Myiarchus brachyurus*, Nicaragua; *Aphelocoma californica hypoleuca*; *Aphelocoma cyanotis*, Mexico; *Corvus corax principalis*; *Corvus americanus hesperis*; *Agelaius phoeniceus sonoriensis* [deleted in the Second Edition]; *Agelaius phoeniceus bryanti*; *Pini-cola enucleator kadiaka*; *Carpodacus mexicanus ruberrimus*; *Plectrophenax nivalis townsendi*; *Cardinalis cardinalis yucatanicus*, Yucatan; [*Cardinalis cardinalis floridanus* added in Second Edition]; *Passerina parellina indigotica*, Southwestern Mexico; *Passerina sumichrasti*, Tehuantepec; *Passerina versicolor pulchra*; *Piranga flammea*, Tres Marias; *Piranga leucoptera latifasciata*, Costa Rica and Veragua; *Ptiliogonys cinereus molybdophanes*, Guatemala; *Lanius ludovicianus gambeli*; *Vireo crassirostris flavescens*, Bahamas; *Compsothlypis graysoni*, Socorro; *Geothlypis (Chamaethlypis) palpebralis*, Southeastern Mexico; *Thryothorus maculipectus umbrinus*, Guatemala; *Thryothorus maculipectus canobrunneus*, Yucatan; *Polioptila caerulea caesiogaster*, Bahamas; *Columbigallina passerina socorroensis*, Socorro; *Megascops hastatus*, Western Mexico; *Phalaenoptilus nuttalli californicus*; *Parus stoneyi*; *Regulus satrapa aztecus* Lawr., MS, Mexico.

294. A Singularly Marked Specimen of *Sphyrapticus thyroideus*. < Auk, IV, no. 1, January, 1887, pp. 75-76.
295. Description of a Recently New Oyster-catcher (*Haematopus galapagensis*) from

the Galapagos Islands. < Proc. U. S. Nat. Mus., ix, sig. 21, February 10, 1887, pp. 325-326.

The species briefly characterized under no. 276 is here more fully described, and a Key to the American white-bellied members of the genus is given.

296. Description of a New Subspecies of *Cyclorhis* from Yucatan. < Proc. U. S. Nat. Mus., ix, sig. 33, February 14, 1887, p. 519.
Cyclorhis flaviventris yucatanensis.
297. Description of a New Species of *Myiarchus*, presumably from the Orinoco District of South America. < Proc. U. S. Nat. Mus., ix, sig. 33, February 14, 1887, p. 520.
Myiarchus coalei.
298. On a Probable Hybrid between *Dryobates nuttalli* (Gamb.) and *D. pubescens gairdnerii* (Aud.). < Proc. U. S. Nat. Mus., ix, sig. 33, February 14, 1887, pp. 521-522.
299. Description of an Apparently New Species of *Picolaptes*, from the lower Amazon. < Proc. U. S. Nat. Mus., ix, sig. 33, February 14, 1887, p. 523.
Picolaptes rikeri.
300. Description of a New Plumed Partridge from Sonora. < Forest and Stream, xxviii, no. 6, March 3, 1887, p. 106.
Callipepla elegans bensoni.
301. List of Birds Found Breeding within the Corporate Limits of Mt. Carmel, Illinois. < Bull. Ridgway Orn. Club, no. 2, April, 1887, pp. 26-35.
A list of eighty-five species found by the writer breeding within the town limits (area about one square mile) during the years 1860-1866; with a description of the locality, a comparison with Washington, D. C., etc.
302. The Imperial Woodpecker (*Campephilus imperialis*) in Northern Sonora. < Auk, iv, no. 2, April, 1887, p. 161.
Taken in pine forests of the Sierra Madre, "within fifty miles of the Arizona boundary", by Lieut. H. C. Benson, U. S. A.
303. The Coppery-tailed Trogon (*Trogon ambiguus*) breeding in Southern Arizona. < Auk, iv, no. 2, April, 1887, pp. 161-162.
Found breeding in Huachuca Mts. by Lieut. H. C. Benson, U. S. A.
304. Description of a New Species of *Cotinga* from the Pacific Coast of Costa Rica. < Proc. U. S. Nat. Mus., x, sig. 1, April 25, 1887, pp. 1-2.
Cotinga ridgwayi Zeledon, MS; type from Pozo Azul.
305. Description of a New Form of *Spindalis* from the Bahamas. < Proc. U. S. Nat. Mus., x, sig. 1, April 25, 1887, p. 3.
Spindalis zena townsendi; type from Abaco Island.
306. Description of the Adult Female of *Carpodectes antoniae* Zeledon; with Critical Remarks, Notes on Habits, etc., by Jose C. Zeledon. < Proc. U. S. Nat. Mus., x, sig. 1, April 25, 1887, p. 20.
307. Feathered Songsters. Great Western Bird Center. A List of the Birds Found Breeding within the Corporate Limits of Mt. Carmel [Illinois]. [Titled by the editor]. < Mount Carmel [Illinois] Register [newspaper], April 28, 1887, p. —.
A slightly modified reprint of the article listed above as item no. 301.
308. Description of a New Species of *Porzana* from Costa Rica. < Proc. U. S. Nat. Mus., x, sig. 7, July 2, 1887, p. 111.
Porzana alfari, with Key to all the known allied forms.
309. Notes on *Ardea wuerdemanni* Baird. < Proc. U. S. Nat. Mus., x, sig. 7, July 2, 1887, pp. 112-115.

310. Trogon ambiguus Breeding in Arizona. < Proc. U. S. Nat. Mus., x, sig. 10, July 2, 1887, p. 147.
Found in breeding season on the Huachuca Mts., Southern Arizona, by Lieut. H. C. Benson, U. S. A. Young male in first plumage described.
311. Description of a New Plumed Partridge from Sonora. < Proc. U. S. Nat. Mus., x, sig. 10, July 2, 1887, pp. 148-150.
Callipepla elegans bensoni. More detailed description of the species referred to under no. 300.
312. Description of a New Genus of Dendrocolaptine Bird from the Lower Amazon. < Proc. U. S. Nat. Mus., x, sig. 10, July 2, 1887, p. 151.
Berlepschia; type, *Picolaptes rikeri* Ridgway. (Named in honor of Count Hans von Berlepsch.)
313. Description of a New Species of Phacellodomus from Venezuela. < Proc. U. S. Nat. Mus., x, sig. 10, July 2, 1887, p. 152.
Phacellodomus inornatus; type from Caracas.
314. Clarke's Nutcracker (*Picicorvus columbianus*) in the Bristol Bay Region, Alaska. < Auk, iv, no. 3, July, 1887, p. 255.
315. Clarke's Nutcracker from the Kowak River, Alaska. < Auk, iv, no. 3, July, 1887, p. 256.
316. Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*) in Maine. < Auk, iv, no. 3, July, 1887, p. 256.
317. Note on *Spizella monticola ochracea* Brewst. < Auk, iv, no. 3, July, 1887, pp. 258-259.
Upholding its subspecific distinctness from *S. m. monticola*.
318. [Letter to the editors concerning the supposed breeding plumage of *Podiceps occidentalis* Lawrence.] < Ibis, 5th ser., v, no. 19, July, 1887, pp. 361-362.
Referring to articles by Canon Tristram in the Ibis for January, 1887, and April, 1887, and suggesting that the specimen there described may be *Podiceps holboellii* Reinhardt—a supposition which proved to be correct.
319. Description of Two New Species of Kaup's Genus *Megascops*. < Proc. U. S. Nat. Mus., x, sig. 17, August 1, 1887, pp. 267-268.
Megascops vermiculatus, Costa Rica, and *Megascops hastatus*, Sinaloa, Mexico.
320. Description of Two New Races of *Pyrrhuloxia sinuata* Bonap. < Auk, iv, no. 4, October, 1887, p. 347.
Pyrrhuloxia sinuata beckhami, type from El Paso, Texas; and *Pyrrhuloxia sinuata peninsulae*, type from San Jose, Lower California.
321. On the Correct Subspecific Title of Baird's Wren (no. 719b, A. O. U. Check-List). < Auk, iv, no. 4, October, 1887, pp. 349-350.
322. A Correction. < Ornithologist and Oologist, xii, no. 11, November, 1887, p. 192.
Letter to the editor correcting correspondents in the April (1887) number in the matter of identification, the so-called "pinnated grouse" in Colorado being the Prairie Sharp-tailed Grouse (*Pedioecetes phasianellus campestris*).
323. Description of a New *Muscisaxicola*, from Lake Titicaca, Peru. < Proc. U. S. Nat. Mus., x, sig. 27, November 3, 1887, p. 430.
Muscisaxicola occipitalis.
324. On *Phrygilus gayi* (Eyd. and Gerv.) and Allied Species. < Proc. U. S. Nat. Mus., x, sig. 27, November 3, 1887, pp. 431-435.
Phrygilus punensis, type from Lake Titicaca, Peru, described as new. Descriptions, synonymy, etc., of four allied species given.

1888.

325. Spencer Fullerton Baird. < Auk, v, no. 1, January, 1888, pp. 1-14. [Reprinted < Ann. Rep. Smithsonian Institution for 1888 (1890), pp. 703-744.]
Obituary read before the Fifth Meeting of the American Ornithologists' Union.
326. Notes on Some Type-specimens of American Troglodytidae in the Lafresnaye Collection. < Proc. Bost. Soc. Nat. Hist., xxiii, March, 1888, pp. 383-388. Fourteen of Lafresnaye's types examined and commented on.
327. Description of a New Tityra from Western Mexico. < Auk, v, no. 3, July, 1888, p. 263.
Tityra personata griseiceps; Mazatlan, Sinaloa, Mexico.
328. A Review of the Genus Dendrocincla Gray. < Proc. U. S. Nat. Mus., x, sigs. 31, January 6, 32, August 6, 1888, pp. 488-497.
329. Remarks on Catharus berlepschi Lawr. < Proc. U. S. Nat. Mus., x, sig. 32, August 6, 1888, p. 504.
Critical, with synonymy.
330. Descriptions of Some New Species and Subspecies of Birds from Middle America. < Proc. U. S. Nat. Mus., x, sig. 32, August 6, 1888, pp. 505-510.
Catharus fumosus, type from Costa Rica; *Mimus gracilis leucophaeus*, Cozumel Island; *Harporhynchus longirostris sennetti*; *Campylorhynchus castaneus*, Costa Rica; *Thryothorus rufalbus castanonotus*, Costa Rica; *Microcerculus dauilias*, Costa Rica; *Dendroornis lawrencei*, Panama; *Dendroornis lawrencei costaricensis*, Costa Rica.
331. Note on the Generic Name Uropsila, Scl. and Salv. < Proc. U. S. Nat. Mus., x, sig. 32, August 6, 1888, p. 511.
The name *Hemiura* is proposed as a substitute (Type *Troglodytes leucogaster* Gould), for reasons given.
332. Descriptions of New Species and Genera of Birds from the Lower Amazon. < Proc. U. S. Nat. Mus., x, sig. 33, August 6, 1888, pp. 516-528.
Thryothorus herberti, *Thryothorus oyapocensis*, *Thryophilus taenioptera*, *Cyphorhinus griseolateralis*, *Colopteryx inornatus*, *Ornithion napaeum*, *Tyrannulus reguloides*, *Attila viridescens*, *Thamnophilus inornatus*, *Heterocnemis (?) hypoleuca*, *Dichrozona zononota*, *Phlogopsis bowmani*, *Rhegmatorhina gymnops*, *Dendroornis fraterculus*, *Dendrocolaptes obsoletus*, *Zenaida jessiae*. The new genera are: *Colopteryx* (to replace *Colopterus* Cabanis, 1847, not of Erichson, 1842); *Dichrozona*, type, *D. zononota* Ridgway; *Rhegmatorhina*, type, *R. gymnops* Ridgway.
333. A Review of the Genus Psittacula of Brisson. < Proc. U. S. Nat. Mus., x, sig. 34, August 6, 1888, pp. 529-548.
Monographic, with full descriptions and synonymy. The following described as new: *Psittacula passerina vivida*, Brazil; *Psittacula insularis*, Mexico; *Psittacula exquisita*, Colombia; *Psittacula deliciosa*, Lower Amazon; *Psittacula coelestis lucida*, Colombia.
334. Catalogue of a Collection of Birds made by Mr. Chas. H. Townsend, on Islands in the Caribbean Sea and in Honduras. < Proc. U. S. Nat. Mus., x, sig. 36, August 6, 1888, pp. 572-597.
New species and subspecies: *Contopus vicinus*, Swan Island; *Butorides saturatus*, Swan Island; *Thamnophilus intermedius*, Honduras; *Centurus santacruzi pauper*, Honduras; *Egyptila vinaceiventris*, Honduras; *Pitylus poliogaster scapularis*, Nicaragua; *Aimophila rufescens discolor* (provisional name), Honduras; *Sturnella magna inexpectata*, Honduras; *Thalurania townsendi*, Honduras; *Colinus nigrogularis segoviensis*, Honduras; *Columba purpureotincta*, British Guiana; *Porzana exilis vagans*, Honduras; *Tigrisoma excellens*, Honduras.

335. [Charles Wickliffe Beckham : Obituary.] < Auk, v, no. 4, October, 1888, pp. 445-446.
336. Supplementary Remarks on the Genus *Psittacula* Brisson. < Auk, v, no. 4, October, 1888, pp. 460-462.
337. Description of a New *Psaltriparus* from Southern Arizona. < Proc. U. S. Nat. Mus., x, sig. 44, October 12, 1888, p. 697.
Psaltriparus santaritae, Santa Rita Mts.
338. Description of a New Western Subspecies of *Accipiter velox* (Wils.) and Sub-specific Diagnosis of *A. cooperi mexicanus* (Swains.). < Proc. U. S. Nat. Mus., xi, sig. 7, November 8, 1888, p. 92.
Accipiter velox rufilatus.
339. Note on *Aestrelata sandwichensis* Ridgw. < Proc. U. S. Nat. Mus., xi, sig. 7, November 8, 1888, p. 104.
The writer's suggestion that this bird might be the same as *Æ. phaeopygia* Salvin (cf. Proc. U. S. Nat. Mus., ix, p. 96) apparently confirmed by Osbert Salvin, who compared the two types.
340. Description of a New Pigeon from Guayaquil, Ecuador. < Proc. U. S. Nat. Mus., xi, sig. 7, November 8, 1888, p. 112.
Columba guayaquilensis.

1889.

341. Natural History Survey of Illinois, | State Laboratory of Natural History, | S. A. Forbes, Director. | — | The Ornithology | of Illinois. | Part I. Descriptive Catalogue, | By Robert Ridgway. | Part II. Economic Ornithology. | By S. A. Forbes. | — | Volume I. [-II of Part I only (1895)] | Published by Authority of the State Legislature. | Springfield, Ill.: | H. W. Rokker, Printer and Binder. | 1889. Small 4to, pp. i-viii, 1-520, pll. i-xxxii, col. frontispiece.
Includes the Passeres, Macrochires, Pici, Coccyges, Psittaci, Accipitres, and Columbæ. The rest were included in the second volume of Part I which was published in 1895. (Cf. no. 417.)
342. Description of the Adult Male of *Acanthidops bairdi*. < Proc. U. S. Nat. Mus., xi, sig. 13, March 12, 1889, p. 196.
The previously unknown adult male of this rare species is described, and remarks are offered concerning the relationships of the genus.
343. Spring Notes on Migratory Birds. < Forest and Stream, xxxii, no. 21, June 13, 1889, p. 420.
Observations made at Laurel, Maryland.
344. Notes on Costa Rican Birds, with Descriptions of Seven New Species and Subspecies and One New Genus. < Proc. U. S. Nat. Mus., xi, sig. 34, September 20, 1889, pp. 537-546.
The following described as new: *Zeledonia* (new genus), type, *Z. coronata* Ridgway; *Zeledonia coronata*; *Microcerculus orpheus*; *Geothlypis caninucha icterotis*; *Xiphocolaptes emigrans costaricensis*; *Picolaptes gracilis*; *Sclerurus canigularis*; *Picumnus flavotinctus*; *Dendroornis punctigula*; *Dendrocolaptes variegatus*. Ten other species are commented on, and the immature male of *Carpodectes nitidus* Salv. is described.
345. Report on the Department of Birds in the U. S. National Museum, for the year ending June 30, 1886. < Ann. Rep. Smithsonian Institution (Report of U. S. National Museum) for 1885-86 (1889), pp. 153-162.
346. Report on the Department of Birds in the U. S. National Museum, for 1887. < Ann. Rep. Smithsonian Institution (Report of U. S. National Museum) for 1887 (1889), pp. 95-100.

1890.

347. *Buteo brachyurus* and *B. fuliginosus*. < Auk, VII, no. 1, January, 1890, p. 90.
Considers their specific identity established.
348. Intergradation between *Zonotrichia leucophrys* and *Z. intermedia*, and between the latter and *Z. gambeli*. < Auk, VII, no. 1, January, 1890, p. 96.
349. A Chart of Standard Colors. < Garden and Forest, III, no. 98, January 8, 1890, pp. 22-23.
Calling attention, in reply to an inquiry, to the writer's "Nomenclature of Colors", 1886. Also refers to the practicability of publishing a satisfactory work on color standards.
350. A Review of the Genus *Xiphocolaptes* of Lesson. < Proc. U. S. Nat. Mus., XII, no. 761, February 5, 1890, pp. 1-20.
Monographic, with full descriptions, synonymy, etc. The following described as new: *Xiphocolaptes sclateri*, Mexico; *Xiphocolaptes virgatus*, locality unknown; *Xiphocolaptes ignotus*, Ecuador; *Xiphocolaptes cinnamomeus*, Brazil; *Xiphocolaptes major castaneus*, Bolivia; *X[iphocolaptes] saturatus*, Ecuador.
351. A Review of the Genus *Sclerurus* of Swainson. < Proc. U. S. Nat. Mus., XII, no. 762, February 5, 1890, pp. 21-31.
Sclerurus lawrencei, Bahia, Brazil, described as new.
352. Scientific Results of Explorations by the U. S. Fish Commission Steamer Albatross. [Published by permission of Hon. Marshall McDonald, U. S. Commissioner of Fisheries.] No. 1.—Birds Collected on the Galapagos Islands in 1888. < Proc. U. S. Nat. Mus., XII, no. 767, February 5, 1890, pp. 101-128.
The following described as new: *Nesomimus* (new genus), type, *Orpheus melanotis* Gould; *Nesomimus macdonaldi*; *Nesomimus personatus*; *Certhidea cinerascens*; *Geospiza conirostris*; *Geospiza media*; *Cactornis brevirostris*; *Camarhynchus townsendi*; *Camarhynchus pauper*; *Poecilonetta galapagensis*; *C[actornis] hypoleuca*.
353. Scientific Results of Explorations by the U. S. Fish Commission Steamer Albatross. [Published by Permission of Hon. Marshall McDonald, Commissioner of Fisheries.] No. 2.—Birds Collected on the Island of Santa Lucia, West Indies, the Abrolhos Islands, Brazil, and at the Straits of Magellan, in 1887-'88. < Proc. U. S. Nat. Mus., XII, no. 768, February 5, 1890, pp. 129-139.
Described as new: *Geositta longipennis*, Elizabeth Island, Straits of Magellan; *Upucerthia propinqua*, Gregory Bay, Straits of Magellan.
354. A Northern Station for *Quercus lyrata*. < Garden and Forest, III, no. 107, March 12, 1890, p. 129.
Found growing abundantly in the bottoms of the Patuxant River, Maryland. Previous northernmost range on Atlantic coastal plain, North Carolina.
355. Salvin and Godman's *Biologia Centrali-Americana—Aves*. < Auk, VII, no. 2, April, 1890, pp. 189-195.
Review of Volume I.
356. Harlan's Hawk a Race of the Red-tail, and not a Distinct Species. < Auk, VII, no. 2, April, 1890, p. 205.
The name changed from binomial to trinomial form (*Buteo borealis harlani*).
357. Further Notes on the Genus *Xiphocolaptes* of Lesson. < Proc. U. S. Nat. Mus., XIII, no. 796, July 1, 1890, pp. 47-48.
Critical notes on *X. procurvus* Cab. and *X. albicollis* (Licht.).
358. *Junco hyemalis shufeldti* in Maryland. < Auk, VII, no. 3, July, 1890, p. 289.

- Specimen taken April 28, 1890, at Laurel, Maryland, by Audubon W. Ridgway; later identified as *J. montanus* Ridgway.
359. A Yellow-crowned *Regulus calendula*. < *Auk*, VII, no. 3, July, 1890, p. 292.
A specimen with yellow crown-patch taken at Laurel, Md., April 27, 1890.
360. Allen on Birds from Quito. < *Auk*, VII, no. 4, October, 1890, pp. 380-381.
Review of paper by J. A. Allen in *Bull. Am. Mus. N. H.*, II, 1889, pp. 69-76.
361. Allen on Birds Collected in Bolivia. < *Auk*, VII, no. 4, October, 1890, pp. 381-382.
Review of paper by J. A. Allen, in *Bull. Am. Mus. N. H.*, II, 1889, pp. 77-112.
362. Allen on the Genus *Cyclorhis*. < *Auk*, VII, no. 4, October, 1890, pp. 382-384.
Review of paper by J. A. Allen, in *Bull. Am. Mus. N. H.*, II, 1889, pp. 123-135.
363. Allen's Descriptions of New South American Birds. < *Auk*, VII, no. 4, October, 1890, pp. 384-385.
Review of paper by J. A. Allen, in *Bull. Am. Mus. N. H.*, II, 1889, pp. 137-151.
364. Allen on Individual and Seasonal Variation in the Genus *Elainea*. < *Auk*, VII, no. 4, October, 1890, pp. 385-386.
Review of paper by J. A. Allen in *Bull. Am. Mus. N. H.*, II, 1889, pp. 183-208.
365. Allen on the Maximilian Types of South American Birds. < *Auk*, VII, no. 4, October, 1890, pp. 386-387.
Review of paper by J. A. Allen, in *Bull. Am. Mus. N. H.*, II, 1889, pp. 209-267.
366. Observations on the Farallon Rail (*Porzana jamaicensis coturniculus* Baird). < *Proc. U. S. Nat. Mus.*, XIII, no. 828, November 15, 1890, pp. 309-311.
Regarded as without doubt specifically distinct from *P. jamaicensis* (Gmelin), but possibly the same or at least closely related to *P. spilonota* (Gould) of the Galapagos Islands, a species not seen by the writer.
367. Report on the Department of Birds in the U. S. National Museum, for 1888. < *Ann. Rep. Smithsonian Institution (Report of U. S. National Museum) for 1888 (1890)*, pp. 145-150.
- 1891.
368. *Falco dominicensis* Gmel. *versus* *Falco sparverioides* Vig. < *Auk*, VIII, no. 1, January, 1891, pp. 113-114.
Concludes that they are identical.
369. A New Name necessary for *Selasphorus floresii* Gould. < *Auk*, VIII, no. 1, January, 1891, p. 114.
Trochilus rubromitratus (or *Selasphorus rubromitratus*).
370. Note on the Alleged Occurrence of *Trochilus heloisa* (Less. and De Latt.) within the North American Limits. < *Auk*, VIII, no. 1, January, 1891, p. 115.
A specimen from El Paso, Texas, erroneously identified by Mr. G. N. Lawrence as the above species proves to be *Stellula calliope* (Gould).
371. *Cistothorus marianae*, *Buteo lineatus alleni*, and *Syrnium nebulosum alleni* in South Carolina. < *Auk*, VIII, no. 2, April, 1891, p. 240.
372. Fulvous Tree Duck in Missouri. < *Forest and Stream*, XXXVI, no. 22, June 8, 1891, p. 435.
373. List of Birds Collected on the Bahama Islands by the Naturalists of the Fish

Commission Steamer Albatross. < Auk, VIII, no. 4, October, 1891, pp. 333-339.

Lists forty species from Abaco, thirty-four from New Providence, eighteen from Eleuthera Island, fifteen from Cat Island, twenty-eight from Watling's Island, twenty-seven from Rum Cay, twenty-six from Green Cay, thirteen from Concepcion Island, one from Booby Rock, near Green Cay, and three at sea.

374. Description of a New Species of Whippoorwill from Costa Rica. < Proc. U. S. Nat. Mus., XIV, no. 867, October 12, 1891, pp. 465-466.
Antrostomus rufomaculatus, from Volcan de Irazu.
375. Notes on Some Birds from the Interior of Honduras. < Proc. U. S. Nat. Mus., XIV, no. 868, October 26, 1891, pp. 467-471.
New forms described: *Platypsaris aglaiae hypophaeus*, and *Pithys bicolor olivascens*.
376. Notes on Some Costa Rican Birds. < Proc. U. S. Nat. Mus., XIV, no. 869, October 31, 1891, pp. 473-478.
377. Note on *Pachyrhamphus albinucha*, Burmeister. < Proc. U. S. Nat. Mus., XIV, no. 870, October 22, 1891, pp. 479-480.
The species described under the name of *Xenopsaris albinucha* and made the type of a new genus, *Xenopsaris*.
378. Description of Two supposed New Forms of *Thamnophilus*. < Proc. U. S. Nat. Mus., XIV, no. 871, October 22, 1891, p. 481.
Thamnophilus albicrissus, and *Thamnophilus trinitatis*, both from Trinidad.
379. Description of a New Sharp-tailed Sparrow from California. < Proc. U. S. Nat. Mus., XIV, no. 872, October 22, 1891, pp. 483-484.
Ammodramus caudacutus becki, taken at Milpitas, Santa Clara County.
380. Notes on the Genus *Sittasomus* of Swainson. < Proc. U. S. Nat. Mus., XIV, no. 877, October 31, 1891, pp. 507-510.
A critical review. The following described as new or as restored species: *Sittasomus chapadensis*, Brazil; *Sittasomus amazonus* Lafresnaye, Upper Amazons; *Sittasomus aequatorialis*, Ecuador; *Sittasomus griseus* Jardine, Tobago.
381. Smithsonian Institution. | United States National Museum. | — | Directions for Collecting Birds. | By | Robert Ridgway, | Curator of the Department of Birds. | — | Part A of Bulletin of the United States National Museum, no. 39. | — | Washington: | Government Printing Office. | 1891. 8vo., pp. [1]-27.
382. Report on the Department of Birds in the U. S. National Museum, for 1889. < Ann. Rep. Smithsonian Institution (Report of the U. S. National Museum) for 1888-89 (1891), pp. 357-361.
383. Report on the Department of Birds in the U. S. National Museum, 1890. < Ann. Rep. Smithsonian Institution (Report of the U. S. National Museum) for 1889-90 (1891), pp. 195-198.
- 1892.
384. *Zonotrichia albicollis* in California. < Auk, IX, no. 3, July, 1892, p. 302.
A specimen taken at Stockton by L. Belding.
385. Spring Arrivals at Washington, D. C. < Auk, IX, no. 3, July, 1892, pp. 307-308.
A list of thirty-seven species with dates of arrival in Spring of 1892.
386. The Humming Birds. < Report of the U. S. National Museum for 1890 [published July, 1892], pp. 253-383, pls. 1-46.
Reissued as a separate publication with following title-page: Smithson-

ian Institution. | United States National Museum. | — | The Humming Birds. | By | Robert Ridgway, | Curator, Department of Birds. | — | From the Report of the National Museum for 1890, pages 253-383 | (with Plates I-XLVI). | — | Washington: | Government Printing Office. | 1892. 8vo.

387. Descriptions of Two New Forms of *Basileuterus rufifrons*, from Mexico. < Proc. U. S. Nat. Mus., xv, no. 895, July 18, 1892, p. 119.
Basileuterus rufifrons jouyi and *Basileuterus rufifrons dugesi*.
388. The Systematic Position of Humming-Birds: Reply to Dr. Shufeldt's "Discussion". < Popular Science News, xxvi, no. 11, November, 1892, pp. 164-165.
389. Shufeldt on the Anatomy of the Humming-Birds and Swifts. < American Naturalist, xxvi, no. 313, December, 1892, pp. 1040-1041.
Reply to a criticism of the writer's "The Humming Birds" by Dr. R. W. Shufeldt in Amer. Nat. for October, 1892.
390. Nocturnal Songsters, and other Bird-Notes. < Science, xx, no. 515, December 16, 1892, pp. 343-344.
391. Transplanting the Trailing Arbutus. < Garden and Forest, v, no. 218, April 27, 1892, p. 202.
Successfully transplanted by the writer.
392. Report on the Department of Birds in the U. S. National Museum, 1891. < Ann. Rep. Smithsonian Institution (Report of the U. S. National Museum) for 1890-91 (1892), pp. 207-211.
1893.
393. Destruction of Crows during the Recent Cold Spell. < Science, xxi, no. 523, February 10, 1893, p. 77.
The Crows (*Corvus americanus*) in the vicinity of Washington, D. C., nearly exterminated by an epidemic which produced blindness.
394. On the Local Segregation of Trees. < Garden and Forest, vi, no. 266, March 29, 1893, pp. 148-149.
Comparison of forest in southern Indiana and Illinois with that of Yezo, Japan, with special reference to article on the latter by Prof. C. S. Sargent in a previous number.
395. The American Plane Tree. < Meehan's Monthly, III, no. 5, May, 1893, pp. 69-70 (illustration).
With particular reference to the size attained by the species in the lower Wabash Valley.
396. Description of Two Supposed New Species of Swifts. < Proc. U. S. Nat. Mus., xvi, no. 923, June 13, 1893, pp. 43-44.
Chaetura lawrencei, Grenada, Lesser Antilles; *Cypseloides cherriei*, Volcan de Irazu, Costa Rica.
397. Age of Guano Deposits. < Science, xxi, no. 543, June 30, 1893, p. 360.
Showing a deposit of nine feet in fifty-two years.
398. Description of a Supposed New Species of *Odontophorus* from Southern Mexico. < Proc. U. S. Nat. Mus., xvi, no. 945, July 21, 1893, pp. 469-470.
Odontophorus consobrinus.
399. [Remarks concerning the type specimen of *Malacoptila fuliginosa* Ridgway, MS, described on pp. 512-513 of the same paper by Charles W. Richmond.] < Proc. U. S. Nat. Mus., xvi, no. 947, October 4, 1893, p. 513.
400. Descriptions of Some New Birds Collected on the Islands of Aldabra and Assumption, Northwest of Madagascar, by Dr. W. L. Abbott. < Proc. U. S. Nat.

Mus., XVI, no. 953, October 25 [advance sheets, unpagged, published August 16, 1893], 1893, pp. 597-600.

Ixocincla madagascariensis rostrata, *Buchanga aldabrana*, *Foudia aldabrana*, *Rougetius aldabranus*, *Ibis abbotti*, *Sula abbotti*, *Turtur saturatus*: new species and subspecies.

401. Remarks on the Avian Genus *Myiarchus*, with Special Reference to *M. yucatanensis* Lawrence. < Proc. U. S. Nat. Mus., XVI, no. 955, October 25, 1893, pp. 605-608.
M. yucatanensis is shown to be a valid form. The following subgenera defined: *Myiarchus* Cabanis; *Onychopterus* Reichenbach; *Eribates* Ridgway, type, *Myiobius magnirostris* Gray; *Deltarhynchus*, type, *Myiarchus flammulatus* Lawr.
402. On a Small Collection of Birds from Costa Rica. < Proc. U. S. Nat. Mus., XVI, no. 956, October 26, 1893, pp. 609-614.
 New species, *Buthraupis caeruleigularis* Cherrie.
403. Scientific Results of Explorations by the U. S. Fish Commission Steamer *Albatross*. [Published by permission of Hon. Marshall McDonald, Commissioner of Fisheries.] No. XXVII—Catalogue of a Collection of Birds made in Alaska by Mr. C. H. Townsend during the Cruise of the U. S. Fish Commission Steamer *Albatross*, in the Summer and Autumn of 1888. < Proc. U. S. Nat. Mus., XVI, no. 960, November 24, 1893, pp. 663-665.
 A list of thirty-five species with field data. The young of "*Troglodytes hiemalis pacificus*" [= *Olbiorchilus hiemalis helleri* (Osgood)] described.
404. A Revision of the Genus *Formicarius* Boddaert. < Proc. U. S. Nat. Mus., XVI, no. 961, November 28 [December 7], 1893, pp. 667-686.
 Monographic, with full descriptions and synonymy of the twelve species, of which the following are described as new: *Formicarius atricapillus* Cherrie, Costa Rica; *Formicarius saturatus* Ridgway, Trinidad; *Formicarius umbrosus* Ridgway, Costa Rica; *Formicarius nigrifrons glaucopectus* Ridgway, British Guiana.
405. Description of a New Storm Petrel from the Coast of Western Mexico. < Proc. U. S. Nat. Mus., XVI, no. 962, November 24, 1893, pp. 687-688.
Oceanodroma townsendi, Cape St. Lucas, Lower California.
406. Report on the Department of Birds in the U. S. National Museum, 1892. < Ann. Rep. Smithsonian Institution (Report of U. S. National Museum) for 1891-92 (1893), pp. 147-152.
 1894.
407. Note on *Rougetius aldabranus*. < Auk, XI, no. 1, January, 1894, p. 74.
 Shows that the species had been previously described under the name *Rallus gularis* var. *aldabrana* (Gunther). A list of allied species given, and the following characterized as new: *Rougetius abbotti*, type from Assumption Island.
408. Description of a New *Geothlypis* from Brownsville, Texas. < Proc. U. S. Nat. Mus., XVI, no. 964, February 5, 1894, pp. 691-692.
Geothlypis poliocephala ralphi.
409. On Geographical Variation in *Sialia mexicana* Swainson. < Auk, XI, no. 2, April, 1894, pp. 145-160.
 The several subspecies defined and described in detail, and synonymy given. *S[ialia] m[exicana] bairdi*, Arizona, described.
410. [Description of *Pipilo orizabae* Cox.] < Auk, XI, no. 2, April, 1894, p. 161.
411. *Picicorvus* an Untenable Genus. < Auk, XI, no. 2, April, 1894, p. 179.
 Considered not separable from *Nucifraga* Brisson.

412. Geographical, versus Sexual, Variation in *Oreortyx pictus*. < Auk, XI, no. 3, July, 1894, pp. 193-197, pl. VI.
With reference to treatment of the subject in Cat. Birds Brit. Mus., XXII, 1893, p. 398.
413. *Colinus virginianus cubanensis* not a Florida Bird. < Auk, XI, no. 4, October, 1894, p. 324.
Shows that Florida specimens to which the above name had been applied are extreme examples of *C. v. floridanus*.
414. We, also, Take Exceptions. < Nidologist, II, no. 2, October, 1894, p. 29.
Concerning size of trees in Illinois.
415. Descriptions of Twenty-two New Species of Birds from the Galapagos Islands.
< Proc. U. S. Nat. Mus., XVII, no. 1007, November 15, 1894, pp. 357-370.
Nesomimus bauri, *Nesomimus bindloei*, *Nesomimus adamsi*, *Certhidea salvini*, *Certhidea bifasciata*, *Certhidea mentalis*, *Certhidea albemarlei*, *Certhidea luteola*, *Geospiza intermedia*, *Geospiza barringtoni*, *Geospiza propinqua*, *Geospiza bauri*, *Geospiza albemarlei*, *Geospiza fratercula*, *Geospiza debiliostris*, *Geospiza acutirostris*, *Camarhynchus rostratus*, *Camarhynchus salvini*, *Camarhynchus affinis*, *Pyrocephalus carolensis*, *Pyrocephalus intercedens*, *Pyrocephalus abingdoni*. Also *Pyrocephalus dubius* Gould is discussed and fully described.
416. Descriptions of Some New Birds from Aldabra, Assumption, and Gloriosa Islands, Collected by Dr. W. L. Abbott. < Proc. U. S. Nat. Mus., XVII, no. 1008, November 15, 1894, pp. 371-373.
Zosterops aldabrensis, *Zosterops madagascariensis gloriosae*, *Cinnyris aldabrensis*, *Cinnyris abbotti*, *Centropus insularis*, *Caprimulgus aldabrensis*.
- 1895.
417. Natural History Survey of Illinois, | State Laboratory of Natural History,
| S. A. Forbes, Director. | — | The | Ornithology | of Illinois. | — |
| Part I, Descriptive Catalogue, | By Robert Ridgway. | — | Volume II.
| Part I. | — | Published by Authority of the State Legislature. | — |
| Springfield, Ill. | H. W. Rokker, Printer and Binder. | 1895. Small 4to,
pp. [1-2]-282, pls. I-XXXII.
Continues with the Gallinae, Limicolae, Alectorides, Herodiones, Anseres, Steganopodes, Longipennes, and Pygopodes. Cf. no. 341.
418. Additional Notes on the Trees of the Lower Wabash Valley. < Proc. U. S. Nat. Mus., XVII, no. 1010, January 24, 1895, pp. 409-421, pls. X-XV (reproduced photographs).
419. [Letter to editor concerning nearly total annihilation of Bluebirds in the District of Columbia by the blizzard of February 7-9, 1895.] < Christian Register, LXXIV, no. 19, May 9, 1895, p. 301.
420. On Fisher's Petrel (*Æstrelata fisheri*). < Auk, XII, no. 4, October, 1895, pp. 319-322, pl. IV.
Full description and synonymy; also comparison with *Æ. defilippiana* Giglioli and Salvadori, with synonymy of the latter and *Æ. gularis* (Peale).
421. On the Correct Subspecific Names of the Texan and Mexican Screech Owls.
< Auk, XII, no. 4, October, 1895, pp. 389-390.
Scops mcallii Cassin being, according to the writer's views, the same as *S. trichopsis* Wagler, the Arizona bird designated as *S. asio trichopsis* (Wagler) in the A. O. U. Check-List requires a new name, and is therefore designated *Megascops asio cineraceus*.
422. *Junco phaeonotus* Wagler, not *J. cinereus* (Swainson). < Auk, XII, no. 4, October, 1895, p. 391.

The former name must be used, since the latter (*Fringilla cinerea* Swainson, 1827) is preoccupied by *Fringilla cinerea* Gmelin, 1788.

423. Nesting of the Duck Hawk in Trees. < Nidologist, III, nos. 4-5, December, 1895, pp. 42-44, 1 pl. (full-page cut of nesting-site).
Account of *Falco peregrinus anatum* nesting in holes of large forest trees near Mt. Carmel, Illinois.
- 1896.
424. A | Manual | of | North American Birds. | By | Robert Ridgway. | — | Illustrated by 464 Outline Drawings of the | Generic Characters. | — | Second Edition | — | Philadelphia: | J. B. Lippincott Company. | 1896. | Royal 8vo, pp. [i]-xiii, 1-653, pls. I-CXXIII. (Frontispiece, portrait of Spencer F. Baird). [Second edition, revised, with new preface and appendix; published March 7, 1896.] Cf. no. 293.
425. Description of a New Species of Ground Warbler from Eastern Mexico. < Proc. U. S. Nat. Mus., XVIII, no. 1045, April 16, 1896, pp. 119-120.
Geothlypis flavovelatus.
426. Preliminary Descriptions of Some New Birds from the Galapagos Archipelago. < Proc. U. S. Nat. Mus., XVIII, no. 1067, April 23, 1896, pp. 293-294.
Geospiza pachyrhyncha, *Geospiza fatigata*, *Camarhynchus bindloei*, *Camarhynchus compressirostris*, *Camarhynchus incertus*.
427. [Letter to the editor and publisher of The Nidologist concerning his contemplated return to California.] < Nidologist, III, no. 9, May, 1896, pp. 99.
428. Description of a New Subspecies of the Genus Peucedramus, Coues. < Proc. U. S. Nat. Mus., XVIII, no. 1074, May 21, 1896, p. 441.
Peucedramus olivaceus aurantiacus, Guatemala.
429. Characters of a New American Family of Passerine Birds. < Proc. U. S. Nat. Mus., XVIII, no. 1076, June 24, 1896, pp. 449-450.
Procnatiidae, to include the genus *Procnias* Illiger, usually placed in the Tanagridae.
430. On Birds Collected by Doctor W. L. Abbott in the Seychelles, Amirantes, Gloriosa, Assumption, Aldabra, and Adjacent Islands. With Notes on Habits, etc., by the Collector. < Proc. U. S. Nat. Mus., XVIII, no. 1079, June 24, 1896, pp. 509-546.
A final report on the collections made by Dr. Abbott on the islands named, with an annotated list of the species found on each island. An appendix gives a list of two hundred twelve species found among the islands north and east of Madagascar, and there is also a bibliography.
The new species briefly characterized in earlier papers are here described in detail, together with the following not previously described: *Turtur abbotti*.
431. Have we Two Native Species of Trumpet Flower? < Garden and Forest, IX, no. 455, November 11, 1896, pp. 453-454.
432. [Description of *Oceanodroma macrodactyla* (Bryant).] < Cat. Birds Brit. Mus., xxv, 1896, p. 351.
433. [Description of *Oceanodroma socorroensis* Townsend.] < Cat. Birds Brit. Mus., xxv, 1896, p. 352.
434. [Description of *Oceanodroma tristrami* Stejneger, MS.] < Cat. Birds Brit. Mus., xxv, 1896, pp. 354-355.
435. [Results of comparison of a specimen of *Æstelrelata affinis* (Buller) with the types of *Æ. gularis* (Peale) and *Æ. fisheri* Ridgway.] < Cat. Birds Brit. Mus., xxv, 1896, p. 415.
Æ. affinis (Buller) stated to be identical with *Æ. gularis* (Peale).

436. [Comparative characters of *Æstrelata fisheri* Ridgway and *Æ. gularis* (Peale).] < Cat. Birds Brit. Mus., xxv, 1896, pp. 415-416.
437. [Description of *Æstrelata longirostris* Stejneger.] < Cat. Birds Brit. Mus., xxv, 1896, p. 418.
438. [Letter to Dr. G. Brown Goode concerning the writer's opinion of the services to ornithology of the eminent English ornithologist, Dr. Philip Lutley Sclater.] < Bull. Nat. Mus., no. 49 [The | Published Writings | of | Philip Lutley Sclater, | 1844-1896. | — | Prepared under the Direction of | G. Brown Goode. | — | Washington: | Government Printing Office. | 1896 | pp. xviii-xix.]
439. [List of private collections of birds, containing more than 1000 specimens, which have been presented at various times to the U. S. National Museum.] < Rep. U. S. Nat. Mus. for 1893-94 (1896), pp. 48-49.
- 1897.
440. *Melopelia leucoptera* in Osceola County, Florida. < Auk, xiv, no. 1, January, 1897, pp. 88-89.
A specimen sent to U. S. Nat. Mus. from Kissimmee in November, 1896, by Prof. W. B. Hinton.
441. Note on *Junco annectens* Baird and *J. ridgwayi* Mearns. < Auk, xiv, no. 1, January, 1897, p. 94.
The type of *J. annectens* Baird representing the same form which Dr. Mearns had recently named *J. ridgwayi*, the latter name becomes a synonym. The form named *J. annectens* in the A. O. U. Check-List (= *J. annectens* Auct. nec Baird) is named *J. mearnsi* (type from Fort Bridger, Wyoming).
442. Correct Nomenclature of the Texas Cardinal. < Auk, xiv, no. 1, January, 1897, p. 95.
Pyrhuloxia sinuata texana.
443. *Dendroica caerulea* vs. *Dendroica rara*. < Auk, xiv, no. 1, January, 1897, p. 97.
Sylvia caerulea Wilson (1810) being preoccupied by *Sylvia caerulea* Latham (1790), the next name for the species in order of date must be taken. It is therefore proposed to call the species *Dendroica rara* (*Sylvia rara* Wilson, 1811).
444. Birds of the Galapagos Archipelago. < Proc. U. S. Nat. Mus., xix, no. 1116, March 15, 1897, pp. 459-670.
A monograph of the subject, including a general discussion of this remarkable insular fauna and full descriptions and synonymy of all the species of birds known to occur there, the range of each indicated by a map of the islands for each species. The recently new species characterized in previous papers by the writer are here more fully described, and there is a bibliography of Galapagos ornithology.
445. Where Junco Roosts. < Bull. no. 14, Wilson Orn. Chapt. Agassiz Assn. (General Notes), o.s. ix, n.s. iv, no. 3, May 31, 1897, pp. 25-26.
One of eight contributors of field notes.
446. Description of the Nest and Eggs of Bachman's Warbler (*Helminthophila bachmanii*). < Auk, xiv, no. 3, July, 1897, pp. 309-310.
447. An Earlier Name for *Ammodramus leconteii*. < Auk, xiv, no. 3, July, 1897, p. 320.
448. On the Status of *Lanius robustus* Baird as a North American Bird. < Auk, xiv, no. 3, July, 1897, p. 323.
Decided, on comparison with the type, alleged to be from California, to be identical or at least conspecific with *L. algeriensis* and therefore certainly not of North American origin.

449. Chapman's 'Bird Life'. < Auk, xiv, no. 3, July, 1897, pp. 336-338. Review.
450. [Remarks concerning *Megascops pinosus* Nelson and Palmer.] < Biol. Centr.-Am., Aves, III, sig. 3, November, 1897, p. 17, footnote.
451. [Article on color of fruits of *Cissus ampelopsis* (= *Ampelopsis cordata*) and *C. stans* (= *A. arborea*). < Garden and Forest, x, no. 512, December 15, 1897, p. 498.
452. An Amateur's Experiment. < Garden and Forest, x, no. 513, December 22, 1897, pp. 504-507.
Account of development of writer's home grounds in Brookland, D. C. 1898.
453. Birds of the Galapagos Islands. < American Naturalist, xxxii, no. 377, May, 1898, pp. 386-389.
Reply to a review of the author's paper bearing the above title by Dr. G. Baur in American Naturalist.
454. [Note on *Polypodium polypodoides* as observed in southern Florida. < The Plant World, I, no. 9, June, 1898, p. 137.
455. Descriptions of Supposed New Genera, Species, and Subspecies of American Birds. I. Fringillidae. < Auk, xv, no. 3, July (author's edition issued May 13), 1898, pp. 223-230.
Melanospiza, type, *Loxigilla richardsoni* Cory; *Brachyspiza*, type, *Fringilla capensis* Müller; *Myospiza*, type, *Fringilla manimbe* Lichtenstein; *Plagiospiza*, type, *Aimophila superciliosa* Swainson; *Incaspiza*, type, *Haemophila pulchra* Sclater; *Rhynchospiza*, type, *Haemophila stolzmanni* Tacz.; *Pselliophorus*, type, *Tachyphonus tibialis* Lawrence; *Lysurus*, type, *Buarremon crassirostris* Cassin; *Serinopsis*, type, *Fringilla arvensis* Kittlitz; *Heterospingus*, type, *Tachyphonus rubrifrons* Lawrence; *Rhodothraupis*, type, *Fringilla celaeno* Lichtenstein; *Hemithraupis*, type, *Aglaia cyanocephala* Lafresnaye and D'Orbigny; *Stelgidostomus*, type, *Saltator maxillosus* Cabanis.
Aimophila ruficeps sororia, Victoria Mts., Lower California; *Aimophila sartorii*, Huatusco, Vera Cruz, Mexico; *Atlapetes pileatus dilutus*, Jesus Maria, Chihuahua, Mexico; *Arremonops venezuelensis*, Puerto Cabello, Venezuela; *Arremonops richmondi*, Greytown, Nicaragua; *Cyanocompsa concreta cyanescens*, Panama; *Amphispiza bilineata deserticola*, Tucson, Arizona; *Amphispiza belli clementeae*, San Clemente Island, California.
456. New Species, Etc., of American Birds. — II. Fringillidae (continued). < Auk, xv, no. 4, October, 1898, pp. 319-324.
Pinicola enucleator alascensis, Nushagak, Alaska; *Pinicola enucleator montana*, Bear Creek, Gallatin Co., Montana; *Astragalinus mexicanus jouyi*, Temax, Yucatan; *Calcarius lapponicus alascensis*, St. Paul Island, Prybilov group, Alaska; *Calcarius lapponicus coloratus*, Copper Island, Kamtschatka; *Junco montanus*, Columbia Falls, Montana; *Brachyspiza capensis insularis*, Curaçao Island, Dutch West Indies; *Euethia coryi*, Cayman Brac, Greater Antilles; *Euethia bryanti*, Porto Rico; *Pyrrhulagra affinis* (Baird), Port au Prince, Haiti; *Pyrrhulagra dominicana*, Dominica, Lesser Antilles; *Pyrrhulagra crissalis*, Cumberland Valley, St. Vincent, Lesser Antilles; *Pyrrhulagra coryi*, St. Eustatius, Lesser Antilles; *Pitylus lazulus* Lesson (1842) antedates *G[oniaphea] caerulea* var. *eurhyncha* Coues (1874) for the Mexican form of the Blue Grosbeak, hence the correct name is *Guiraca caerulea lazulus*. The type of *Passerina Vieillot* (1816) being by elimination *Emberiza nivalis* Linnaeus, that name must be used for the Snowflake instead of *Plectrophenax* Stejneger (1882) and the name *Cyanospiza* Baird (1858) restored to the genus called *Passerina* in the A.O.U. Check-List.

457. Description of a New Species of Humming-bird from Arizona. < Auk, xv, no. 4, October, 1898, pp. 325-326.
Atthis morcomi, Huachuca Mts., Arizona.
458. Hemithraupis:—A Correction. < Auk, xv, no. 4, October, 1898, pp. 330-331.
Sporathraupis is proposed instead; type, *Aglaia cyanocephala* Lafresnaye and D'Orbigny.
459. The Home of the Ivory-bill. < Osprey, III, no. 3, November, 1898, pp. 35-36, 3 illus. (reproduced photographs).
Account of the finding of the Ivory-billed Woodpecker (*Campephilus principalis*) in the Big Cypress region of southwestern Florida.

1899.

460. New Species, Etc., of American Birds. — III. Fringillidae (continued). < Auk, xvi, no. 1, January, 1899, pp. 35-37.
Melospiza fasciata cooperi, San Diego, California; *Melospiza fasciata pusillula*, Alameda Co., California; *Melospiza fasciata caurina*, Yakutat, Alaska; *Passerella iliaca fuliginosa*, Neah Bay, Washington; *Zonotrichia leucophrys nuttalli*, Santa Cruz, California; *Sicalis chapmani*, Lower Amazon; *Spinus alleni*, Brazil.
461. On the Genus *Astragalinus* Cabanis. < Auk, xvi, no. 1, January, 1899, pp. 79-80.
Limits of the genus defined and a list of the species and subspecies given.
462. On the Generic Name *Aimophila* versus *Peuceaea*. < Auk, xvi, no. 1, January, 1899, pp. 80-81.
The latter considered inseparable, and a list of the species and subspecies of *Aimophila* (formerly *Peuceaea*) given.
463. A Fraud—Look Out for Him! < Osprey, III, no. 6, February, 1899, p. 94.
Account of an unscrupulous individual claiming connection with a mythical "National Science Association of Washington", who had caused the writer much trouble from receiving numerous complaints from persons whom he had victimized.

464. New Species, Etc., of American Birds. — IV. Fringillidae (Concluded); Corvidae (Part). < Auk, xvi, no. 3, July, 1899, pp. 254-256.
Pipilo maculatus atratus, Pasadena, California; *Pipilo fuscus potosinus*, Mexico; *Aimophila rufescens sinaloa*, Mexico; *Cyanocorax affinis zeledoni*, Costa Rica; *Cyanolyca mitrata*, new name for *C. ornata*; *Perisoreus obscurus griseus*, Kittitas Co., Washington; *Cyanocitta stelleri azteca*, Mexico.

1900.

465. A | Manual | of North American Birds. | By | Robert Ridgway. | — | Illustrated by 464 Outline Drawings of the | Generic Characters. | — | Fourth Edition | — | Philadelphia: | J. B. Lippincott Company. | 1900. | Royal 8vo, pp. [i-ii] -xiii, 1-653, pll. i-cxxiv, frontispiece (portrait of Spencer F. Baird).
A second reprint of the Second Edition with no changes or additions. Cf. no. 293.
466. New Species, Etc., of American Birds. — V. Corvidae. — (Concluded). < Auk, xvii, no. 1, January, 1900, pp. 27-29.
Xanthoura yncas galeata, Colombia; *Xanthoura luxuosa glaucescens*, Ft. Brown, Texas; *Xanthoura luxuosa vivida*, Mexico. *Xanthoura yncas cyanodorsalis* (Dubois), *X. y. chloronota* (Wagler), *X. luxuosa luxuosa* (Lesson), and *X. I. guatemalensis* (Bonaparte) commented on.
467. New Species, Etc., of American Birds. — VI. Fringillidae (Supplement). < Auk, xvii, no. 1, January, 1900, pp. 29-30.
Melospiza melodia kenaiensis, Port Graham, Cook Inlet, Alaska; *Passer-*

ella iliaca insularis, Kadiak Island, Alaska; *Passerella iliaca annectens*, Yakutat, Alaska.

468. Concerning the Use of Scientific Names. <Condor, II, no. 2, March (published April), 1900, p. 41.

A plea for the use of scientific names for species in popular articles. Lack of them often prevents the author of a monographic work from citing very important contributions to the life-history, etc., of many species.

469. Song Birds of Europe and America. < Bird-Lore, II, no. 3, June, 1900, pp. 69-75. In controversy of the statement of a writer in The Churchman that the United States are comparatively deficient in songsters.

470. [Description of *Buteo borealis socorroensis*.] < Biol. Centr.-Am., Aves, III, sig. 8, November, 1900, p. 64.

1901.

471. New Birds of the Families Tanagridae and Icteridae. < Proc. Wash. Acad. Sci., III, April 15, 1901, pp. 149-155.

New genera: *Iridophanes*, type, *Dacnis pulcherrima* Sclater; *Pseudagelaeus*, type, *Agelaius imthurni* Sclater; *Xanthopsar*, type, *Oriolus flavus* Gmelin.

New species: *Chlorospingus sumichrasti*, Mexico; *Holoquiscalus martinicensis*, Martinique.

New subspecies: *Calospiza florida arcaei*, Veragua; *Piranga roseogularis cozumela*, Cozumel Island, Yucatan; *Ramphocelus dimidiatus isthmicus*, Frijole, Panama; *Phoenicotheraupis salvini peninsularis*, Yucatan; *Phoenicotheraupis salvini discolor*, Nicaragua; *Zarhynchus wagleri mexicanus*, Mexico; *Scaphidurus major nelsoni*, Mexico; *Icterus cucullatus sennetti*, Brownsville, Texas; *Icterus gularis tamaulipensis*, Mexico; *Icterus mesomelas taczanowskii*, Ecuador; *Agelaius phoeniceus fortis*, Omaha, Nebraska; *Agelaius phoeniceus neutralis*, San Diego Co., California; *Agelaius phoeniceus caurinus*, Vancouver Island.

472. The Birds | of | North and Middle America: | A Descriptive Catalogue | of the | Higher Groups, Genera, Species, and Subspecies of Birds | Known to Occur in North America, from the | Arctic Lands to the Isthmus of Panama, | the West Indies and Other Islands | of the Caribbean Sea, and the | Galapagos Archipelago. | By | Robert Ridgway, | Curator, Division of Birds. | — | Part I. | Family Fringillidae—The Finches. | — | Washington: | Government Printing Office. | 1901. = Bull. U. S. Nat. Mus., no. 50, Part I, 8vo, pp. [i-iv] v-xxx, 1-715, pl. I-XIX (outlines of generic characters). Published October 24, 1901.

Here begins the *magnum opus* of systematic American ornithology.

1902.

473. The Birds | of | North and Middle America: | A Descriptive Catalogue | of the | Higher Groups, Genera, Species, and Subspecies of Birds | Known to Occur in North America, from the | Arctic Lands to the Isthmus of Panama, | the West Indies and Other Islands | of the Caribbean Sea, and the | Galapagos Archipelago. | By | Robert Ridgway, | Curator, Division of Birds. | — | Part II. | Family Tanagridae—The Tanagers. | Family Icteridae—The Troupials. | Family Coerebidae—The Honey Creepers. | Family Mniotiltidae—The Wood Warblers. | — | Washington: | Government Printing Office. | 1902. Published October 16, 1902. = Bull. U. S. Nat. Mus., no. 50, Part II, 8vo, pp. [i-vi] vii-xx, 1-834, pl. I-XXII (outlines generic characters).

474. Descriptions of Three New Birds of the Families Mniotiltidae and Corvidae. < Auk, XIX, no. 1, January, 1902, pp. 69-70.

Compothlypis pitiayumi speciosa, Panama; *Dendroica vigorsii abacoensis*, Abaco Island, Bahamas; *Aphelocoma texana*, Texas.

475. The Elf Owl in California. < Condor, IV, no. 1, January, 1902, pp. 18-19.
- 1903.
476. Pycraft's Classification of the Falconiformes. < Science, n.s. XVII, no. 430, March 27, 1903, pp. 509-511.
Review. (Cf. Stejneger, Science, XVII, no. 433, April 17, 1903, pp. 628-629.)
477. Lophophanes vs. Baeolophus. < Auk, XX, no. 3, July, 1903, p. 308.
According to the writer's views, the former name should be restricted to *Parus cristatus* Linnaeus and other Palaearctic species, and the latter name used for the nearctic crested Titmice. A list of the species and subspecies of the latter is given.
478. Descriptions of New Genera, Species, and Subspecies of American Birds. < Proc. Biol. Soc. Wash., XVI, September 30, 1903, pp. 105-111.
New genera: *Alopochelidon*, type, *Hirundo fucata* Temminck; *Orochelidon*, type, *Petrochelidon murina* Cassin; *Diplochelidon*, type, *Hirundo melanoleuca* Maximilian; *Lamprochelidon*, type, *Hirundo euchrysea* Gosse.
New species: *Stelgidopteryx salvini*, Guatemala; *Polioptila nelsoni*, Mexico; *Polioptila bairdi*, Nicaragua; *Heleodytes nelsoni*, Mexico.
New Subspecies: *Budytes flavus alascensis*, Alaska; *Vireosylva gilva brewsteri*, Mexico; *Vireosylva josephae costaricensis*, Costa Rica; *Vireo huttoni mexicanus*, Mexico; *Vireo huttoni cognatus*, Lower California; *Vireo bellii arizonae*, Arizona; *Pachysylvia ochraceiceps pallidipectus*, Costa Rica; *Vireolanus pulchellus viridiceps*, Panama; *Lanius ludovicianus mearnsi*, San Clemente Island, California; *Aphelocoma unicolor coelestis*, Mexico; *Baeolophus inornatus restrictus*, Oakland, California; *Baeolophus inornatus murinus*, Lower California; *Psaltriparus minimus saturatus*, Mt. Vernon, Washington; *Chamaea fasciata rufula*, Marin Co., California; *Polioptila superciliaris magna*, Costa Rica; *Telmatodytes palustris iliacus*, Wheatland, Indiana.
479. Diagnoses of Nine New Forms of American Birds. < Proc. Biol. Soc. Wash., XVI, November 30, 1903, pp. 167-170.
Thryophilus pleurostictus rarus, Nicaragua; *Thryophilus modestus pullus*, Chiapas; *Salpinctes obsoletus notius*, Mexico; *Hemicorhina leucophrys castanea*, Guatemala; *Hemicorhina leucophrys berlepschi*, Ecuador; *Hemicorhina hilaris bangsi*, Colombia; *Cistothorus polyglottus lucidus*, Panama; *Salpinctes obsoletus exsul*, Mexico; *Salpinctes maculatus*, Guatemala.
480. Relationships of the Madagascar Genus Hypositta Newton. < Proc. Biol. Soc. Wash., XVI, September 30, 1903, p. 125.
- 1904.
481. Descriptions of Seven New Species and Subspecies of Birds from Tropical America. < Smithsonian Misc. Coll. (Quart. Issue), XLVII, August 6, 1904, pp. 112-113.
Myadestes genibarbis cherriei, Santo Domingo; *Catharus fuscater sanctae-martae*, Colombia; *Cichlherminia coryi*, Martinique (?); *Cinclocerthia ruficauda tenebrosa*, St. Vincent; *Cinclocerthia ruficauda pavida*, St. Christopher; *Mimus gilvus guatemalensis*, Guatemala; *Mimus gilvus tolimensis*, Colombia.
482. The Birds | of | North and Middle America: | A Descriptive Catalogue | of the | Higher Groups, Genera, Species, and Subspecies of Birds | Known to Occur in North America, From the | Arctic Lands to the Isthmus of Panama, | The West Indies and other Islands | of the Caribbean Sea, and the | Galapagos Archipelago. | By | Robert Ridgway, | Curator, Division of Birds. | — | Part III. | Family Motacillidae—The Wagtails and Pipits. Family Corvidae—The Crows and Jays. | Family Hirundinidae—The Swallows. Family Paridae—The Titmice. | Family Ampelidae—The Waxwings.

Family Sittidae—The Nuthatches. | Family Ptilogonatidae—The Silky Flycatchers. Family Certhidae—The Creepers. | Family Dulidae—The Palm Chats. Family Troglodytidae—The Wrens. | Family Vireonidae—The Vireos. Family Cinclidae—The Dippers. | Family Laniidae—The Shrikes. Family Chamaeidae—The Wren-Tits. | Family Sylviidae—The Warblers. | — | Washington: | Government Printing Office. | 1904 [December 31]. = Bull. U. S. Nat. Mus., no. 50, Part III, 8vo, pp. [i-iv] v [vi] vii-xx, 1-801, pls. i-xix.

483. *Nannorchilus*, a New Name for *Hemiura*, Preoccupied. < Proc. Biol. Soc. Wash., xvii, April 9, 1904, p. 102.

1905.

484. Descriptions of Some New Genera of Tyrannidae, Pipridae, and Cotingidae. < Proc. Biol. Soc. Wash., xviii, September 2, 1905, pp. 207-210.

Aphanotriccus, type, *Myiobius capitalis* Salvin; *Terenotriccus*, type, *Myiobius fulvicularis* Salvin and Godman; *Myiotriccus*, type, *Tyrannula phoenicura* Sclater; *Atalotriccus*, type, *Colopterus pilaris* Cabanis; *Placosotomus*, type, *Platyrrhynchus superciliaris* Lawrence; *Cnemarchus*, type, *Taenioptera erythropygia* Sclater; *Orodynastes*, type, *Taenioptera striatocollis* Sclater; *Tyrannopsis*, type, *Muscicapa sulphurea* Spix; *Tolmarchus*, type, *Pitangus taylori* Sclater; *Phaeotriccus*, type, *Cnipolegus hudsoni* Sclater; *Allocotopterus*, type, *Pipra deliciosa* Sclater; *Stictornis*, type, *Ampelis cinctus* Tschudi; *Idiotriccus*, type, *Pogonotriccus zeledoni* Lawrence; *Elainopsis*, type, *Elainea elegans* Pelzeln; *Microtriccus*, type, *Tyrannulus semiflavus* Sclater and Salvin; *Hylonax*, type, *Myiarchus validus* Cabanis.

485. [Bibliography of the Publications by] Robert Ridgway, M.S. (1884) [Indiana University]). Curator of Birds, U. S. National Museum, Brookland, D. C. < Indiana Univ. Bull., II, no. 6, March, 1905, pp. 125-142.

This item is included because of its quite evident transcription from Mr. Ridgway's own card-index of his titles. The list is unsatisfactory to the student in ornithology because of its form, its omissions, and its lack of annotations or abstracts. It is carried up only to 1903.

486. [Notes on Nesting Boxes.] < Bird-Lore, vii, no. 1, January, 1905, p. 18.

Results with cavity-nesting birds on his home grounds, Brookland, D. C.

487. New Genera of Tyrannidae and Turdidae and New Forms of Tanagridae and Turdidae. < Proc. Biol. Soc. Wash., xviii, October 17, 1905, pp. 211-214.

Platytriccus, type, *Platyrrhynchus cancroma* Sclater; *Haplocichla*, type, *Turdus aurantius* Gmelin; *Chlorospingus zeledoni*, Costa Rica; *Phoenicothraupis alfaroana*, Costa Rica; *Mimocichla rubripes eremita*, Swan Island, Caribbean Sea.

488. Description of an Adult Female *Euphonia* Supposed to be *Euphonia gnatho* (Cabanis). < Proc. Biol. Soc. Wash., xviii, October 17, 1905, pp. 225-226.

489. A Winter with the Birds in Costa Rica. < Condor, vii, no. 6, November, 1905, pp. 151-160, seven reproduced photographs (full page frontispiece).

"Mr. Ridgway has written a most interesting article on this charming excursion, which no Ornithologist should omit to read". (Editor, *Ibis*, 1906, p. 396.)

1906.

490. Some Observations concerning the American Families of Oligomyodian Passeres. < Proc. Biol. Soc. Wash., xix, January 29, 1906, pp. 7-16.

Review of the taxonomic history of these groups, with "Provisional Key to the Families of Mesomyodi" and a revision of the families Tyrannidae, Pipridae, and Cotingidae.

491. "Atratus versus Megalonyx". < Condor, viii, no. 2, March, 1906, p. 53.

492. "Atratus versus Megalonyx". < Condor, viii, no. 4, July, 1906, p. 100.

493. Descriptions of Some New Forms of Oligomyodian Birds. < Proc. Biol. Soc. Wash., XIX, September 6, 1906, pp. 115-120.

Coryphotriccus, gen. nov.; *Todirostrum cinereum coloreum*; *Atalotriccus pilaris venezuelensis*; *Rhynchocyclus klagesi*; *Mionectes olivaceus venezuelensis*; *Elaenia frantzii stolzmanni*; *Myiarchus ferox actiosus*; *Megarynchus pitangua caniceps*; *Pipra erythrocephala berlepschi*; *Pipra pipra bahiae*; *Pipra pipra anthracina*; *Scotothorus olivaceus*; *Scotothorus furvus*; *Attila citreopyga salvini*; *Attila citreopyga luteola*; *Tityra semifasciata columbiana*; *Tityra semifasciata costaricensis*; *Platypsaris aglaiae yucatanensis*; *Lathria unirufa clara*; *Lathria fusco-cinerea guayaquilensis*.

1907.

494. *Cinclus mexicanus* not a Costa Rican Bird. < Auk, XXIV, no. 1, January, 1907, p. 105.

495. The Birds | of | North and Middle America: | A Descriptive Catalogue | of the | Higher Groups, Genera, Species, and Subspecies of Birds | Known to Occur in North America, from the | Arctic Lands to the Isthmus of Panama, | The West Indies and Other Islands | of the Caribbean Sea, and the | Galapagos Archipelago. | By | Robert Ridgway | Curator, Division of Birds. | — | Part IV. | Family Turdidae—Thrushes. Family Alaudidae—Larks. | Family Zeledoniidae—Wren-Thrushes. Family Oxyruncidae—Sharp-bills. | Family Mimidae—Mockingbirds. Family Tyrannidae—Tyrant Flycatchers. | Family Sturnidae—Starlings. Family Pipridae—Manakins. | Family Ploceidae—Weaver Birds. Family Cotingidae—Chat-terers. | — | Washington: | Government Printing Office. | 1907 [published July 1]. = Bull. U. S. Nat. Mus., no. 50, Part IV, 8vo, pp. [i-iv] v-xxii, 1-973, pll. I-XXXIV.

1908.

496. Type Locality of *Vireo pusillus*. < Auk, xxv, no. 2, April, 1908, pp. 224-225.
497. Red-spotted Bluethroat in Alaska. < Auk, xxv, no. 2, April, 1908, p. 226.
498. Diagnoses of Some New Forms of Neotropical Birds. < Proc. Biol. Soc. Wash., XXI, October 20, 1908, pp. 191-195.

Thryorchilus basultoii, Costa Rica; *Coryphotriccus distinctus*, Costa Rica; *Thamnophilus doliatus pacificus*, Nicaragua; *Thamnophilus doliatus yucatanensis*, Yucatan; *Dysithamnus mentalis septentrionalis*, Guatemala; *Dysithamnus mentalis oberi*, Tobago; *Thamnistes anabatinus saturatus*, Costa Rica; *Drymophila grisea margaritensis*, Venezuela; *Myrmeciza boucardi panamensis*, Panama; *Myrmelastes cassini*, Colombia; *Gymnocichla nudiceps sancti-martae*, Colombia; *Formicarius moniliger intermedius*, British Honduras; *Formicarius moniliger panamensis*, Panama; *Delatiria henrica salvini*, Guatemala; *Delatiria henrica brevisrostris*, Western Mexico; *Stenopsis tobagensis*, Tobago.

1909.

499. American Nature Series | Group I. Natural History | — | Birds of the World | A Popular Account | By | Frank H. Knowlton, Ph. D. | United States National Museum | Member of the American Ornithologists' Union, Washington Academy of Sciences | Biological Society of Washington, Etc. | With a Chapter on the Anatomy of Birds | By | Frederic A. Lucas | Curator-in-Chief, Brooklyn Institute of Arts and Sciences | The Whole Edited by | Robert Ridgway | Curator of Birds, United States National Museum | With sixteen Colored Plates and two hundred thirty-six Illustrations | publisher's device | New York | Henry Holt and Company | 1909 [March 19]. Large 8vo, pp. [i-iv] - xiii, 1-873, pll. as above. An important and valuable general reference.

500. New Genera, Species and Subspecies of Formicariidae, Furnariidae, and Dendrocolaptidae. < Proc. Biol. Soc. Wash., XXII, April 17, 1909, pp. 69-74.

Megastictus, type, *Myrmeciza margaritata* Sclater; *Myrmopagis*, type,

Myrmothera axillaris Vieillot; *Rhoporchilus*, type, *Formicivora speciosa* Salvin; *Myrmorchilus*, type, *Myiothera strigilata* Maximilian; *Myrmoderus*, type, *Myiothera loricata* Lichtenstein; *Phaenostiectus*, type, *Phlegopsis macleanmani* Lawrence; *Hylophylax*, type, *Conopophaga naevioides* Lafresnaye; *Oropezus*, type, *Grallaria rufula* Lafresnaye; *Hyllopezus*, type, *Grallaria perspicillata* Lawrence; *Premnornis*, type, *Margarornis guttata* Lawrence; *Driocistes*, type, *Thripophaga sclateri* Berlepsch; *Phaceloscenus*, type, *Anumbius striaticollis* D'Orbigny and Lafresnaye; *Schoeniophylax*, type, *Sylvia phryganophila* Vieillot; *Acrorchilus*, type, *Synallaxis erythroptus* Sclater; *Hylcistes*, type, *Philydor virgatus* Lawrence; *Rhopoctites*, type, *Philydor rufo-brunneus* Lawrence.

Automolus cervinigularis hypophaeus, Costa Rica; *Acrorchilus erythroptus griseigularis*, Colombia; *Synallaxis albescens hypoleuca*, Panama; *Dendrocolaptes validus costaricensis*, Costa Rica; *Xiphorhynchus flavigaster yucatanensis*, Yucatan; *Xiphorhynchus punctigula insolitus*, Panama; *Xiphorhynchus lacrymosus rostratus*, Colombia; *Picolaptes affinis neglectus*, Costa Rica; *Campylorhamphus chapmani*, unknown locality in South America; *Myrmeciza zeledoni*, Costa Rica; *Myrmeciza berlepschi*, Western Ecuador.

501. [Letter to editors regarding the publication of "Color Standards and Color Nomenclature".] < Ibis, 9th ser., III, no. XII, October, 1909, pp. 714-715.
502. Hybridism and Generic Characters in the Trochilidae. < Auk, xxvi, no. 4, October, 1909, pp. 440-442.
503. New Edition of Ridgway's 'Nomenclature of Colors'. < Auk, xxvi, no. 4, October, 1909, p. 450.
Letter to editors regarding the early publication, together with price, of the new color book.
504. [Transfer of the Division of Birds to the New U. S. National Museum.] < Auk, xxvi, no. 4, October, 1909, pp. 454-455.
505. [Letter to editor announcing particulars in connection with the publication of "Color Standards and Color Nomenclature".] < Condor, xi, no. 6, November, 1909, p. 210.

1910.

506. Concerning Three alleged "Erroneous Georgia Records". < Auk, xxvii, no. 1, January, 1910, p. 88.
507. Diagnoses of New Forms of Micropodidae and Trochilidae. < Proc. Biol. Soc. Wash., xxiii, April 19, 1910, pp. 53-56.
Streptoprocne zonaris mexicana, Vera Cruz, Mexico; *Chaetura richmondi*, Costa Rica; *Cypseloides niger jamaicensis*, Jamaica; *Cypseloides niger costaricensis*, Costa Rica; *Phoebornis longirostris veraecrucis*, Vera Cruz, Mexico; *Phoebornis adolphi saturatus*, Costa Rica; *Eupherusa eximia nelsoni*, Vera Cruz, Mexico; *Amizilis bangsi*, Costa Rica; *Anthracothorax prevosti gracilirostris*, Costa Rica; *Florisuga mellivora tobagensis*, Tobago. *Nesophlox* gen. nov., type, *Trochilus evelynae* Bourcier.

1911.

508. The Birds | of | North and Middle America: | A Descriptive Catalogue | of the | Higher Groups, Genera, Species, and Subspecies of Birds | Known to Occur in North America, from the | Arctic Lands to the Isthmus of Panama, | The West Indies and Other Islands | of the Caribbean Sea, and the | Galapagos Archipelago. | By | Robert Ridgway, | Curator, Division of Birds. | — | Part v. | Family Pterotochidae—The Tapaculos. Family Dendrocolaptidae—The Woodhewers. | Family Formicariidae—The Antbirds. Family Trochilidae—The Humming Birds. | Family Furnariidae—The Ovenbirds. Family Micropodidae—The Swifts. | Family Trogonidae—The Trogons. | — | Washington: | Government Printing Office. | 1911.

= Bull. U. S. Nat. Mus., no. 50, Part v, 8vo, pp. [i-iv] - xxiii, 1-859, pll. i-xxxiii. (Issued November 29, 1911.)

509. Diagnoses of Some New Forms of Picidae. < Proc. Biol. Soc. Wash., xxiv, February 24, 1911, pp. 31-36.

Colaptes auratus borealis, Lower Yukon R., Alaska; *Colaptes chrysoides mearnsi*, Arizona; *Centurus chrysogenys flavinuchus*, Southwestern Mexico; *Centurus uropygialis brewsteri*, Lower California; *Chloronerpes rubiginosus trinitatis*, Trinidad; *Chloronerpes rubiginosus tobagensis*, Tobago; *Chloronerpes rubiginosus meridensis*, Venezuela; *Veniliornis kirkii darienensis*, Panama; *Phloeotomus pileatus floridanus*, Florida; *Scapanus guatemalensis nelsoni*, Southwest Mexico; *Picumnus olivaceus panamensis*, Panama.

Balanosphyra gen. nov., type, *Picus formicivorus* Swainson.

1912.

510. Color Standards | and | Color Nomenclature | Ridgway | [color device in five colors] | Fifty-three Colored Plates | Eleven hundred and Fifteen Named Colors | (First title-page).

Color Standards | and | Color Nomenclature | — | By | Robert Ridgway, M.S., C.M.Z.S., Etc. | Curator of the Division of Birds, United States | National Museum. | — | With Fifty-three Colored Plates | and | Eleven Hundred and Fifteen Named Colors. | — | Washington, D. C. | 1912. | Published by the Author. Sm. 8vo, pp. [i]-iii-[iv], 1-44, pll. i-LIII.

Much has been written about this great work which is the standard for the entire world in its field. The book is still in print (1927) and may be had of A. Hoen & Co., Baltimore, Md.

511. Descriptions of Some New Species and Subspecies of Birds from Tropical America. < Proc. Biol. Soc. Wash., xxv, May 4, 1912, pp. 87-92.

Capito aurantiiventris, Upper Amazon Valley; *Capito auratus bolivianus*, Bolivia; *Aulacorhynchus prasinus virescens*, Honduras; *Pteroglossus torquatus erythrozonus*, Yucatan; *Monasa rikeri*, Brazil; *Monasa sclateri* Colombia; *Momotus lessonii exiguus*, Yucatan; *Electron carinatus viridis*, Costa Rica; *Eumomota superciliaris bipartitus*, Oaxaca; *Antrostomus nelsoni*, Yucatan; *Nyctidromus albicollis nelsoni*, Southwestern Mexico; *Nyctidromus albicollis sumichrasti*, Southwestern Mexico; *Nyctibius griseus costaricensis*, Costa Rica; *Nyctibius griseus panamensis*, Panama; *Nyctibius maculosus*, Ecuador.

512. Diagnoses of Some New Genera of American Birds. < Proc. Biol. Soc. Wash., xxv, May 4, 1912, pp. 97-102.

Ecchaunornis, type, *Bucco radiatus* Sclater; *Systellura*, type, *Stenopsis ruficervix* Sclater; *Antiurus*, type, *Stenopsis maculicaudus* Lawrence; *Setopagis*, type, *Caprimulgus parvulus* Gould; *Nyctipolus*, type, *Caprimulgus nigrescens* Cabanis; *Ptilonycterus*, type, *Caprimulgus ocellatus* Tschudi; *Micrococcyx*, type, *Coccyzus pumilus* Strickland; *Diopsittaca*, type, *Psittacus nobilis* Linnaeus; *Orthopsittaca*, type, *Psittacus manilatus* Boddaert; *Thectocercus*, type, *Psittacus acuticaudatus* Vieillot; *Psilopsiagon*, type, *Trichoglossus aurifrons* Wagler; *Grammopsittaca*, type, *Psittacula lineola* Cassin; *Nannopsittaca*, type, *Brotogeris panychlorus* Salvin and Godman; *Hapalopsittaca*, type, *Psittacus amazoninus* Des Murs.

1914.

513. The Birds | of | North and Middle America: | A Descriptive Catalogue | of the | Higher Groups, Genera, Species, and Subspecies of Birds | Known to Occur in North America, from the | Arctic Lands to the Isthmus of Panama | the West Indies and other Islands | of the Caribbean Sea, and the | Galapagos Archipelago | By | Robert Ridgway, | Curator, Division of Birds. | — | Part VI. | Family Picidae—The Woodpeckers. Family Todidae—The Todies. | Family Capitonidae—The Barbets. Family Momotidae—The Motmots. | Family Ramphastidae—The Toucans. Family Caprimulgidae—

The Goatsuckers. | Family Bucconidae—The Puff Birds. Family Nyctibiidae—The Potoos. | Family Galbulidae—The Jacamars. Family Tytonidae—The Barn Owls. | Family Alcedinidae—The Kingfishers. Family Bubonidae—The Eared Owls. | — | Washington: | Government Printing Office. | 1914. = Bull. U. S. Nat. Mus., no. 50, Part vi [issued April 8, 1914], 8vo, pp. [i-iv]-xx, 1-882, pll. i-xxxvi.

514. Bird Life in Southern Illinois I. Bird Haven. < Bird-Lore, xvi, no. 6, November, 1914, pp. [409]-420, seven illus. (photographs reproduced).

1915.

515. Bird-Life in Southern Illinois II. Larchmound: A Naturalist's Diary. < Bird-Lore, xvii, no. 1, January, 1915, pp. [1]-7, four illus. (3 photos, 1 vignette).
516. Bird-Life in Southern Illinois III. Larchmound: A Naturalist's Diary. < Bird-Lore, xvii, no. 2, March, 1915, pp. 91-103, two cuts (photos).
517. Bird-Life in Southern Illinois IV. Changes which Have Taken Place in Half a Century. < Bird-Lore, xvii, no. 3, May, 1915, pp. 191-198.

518. Descriptions of Some New Forms of American Cuckoos, Parrots, and Pigeons. < Proc. Biol. Soc. Wash., xxviii, May 27, 1915, pp. 105-108.

Coccyzus minor palloris, Costa Rica; *Coccyzus minor rileyi*, Barbuda, Lesser Antilles; *Morococcyx erythropygus mexicanus*, Oaxaca, Mexico; *Ara militaris mexicana*, Mexico; *Conurus holochlorus strenuus*, Nicaragua; *Grammopsittaca lineola maculata*, Eastern Peru; *Amazona vittata gracilipes*, Culebra Island, West Indies; *Notioenas* gen. nov., type, *Columba maculosa* Temminck; *Chloroenas inornata exsul*, Porto Rico; *Zenaidura macroura tresmariae*, Maria Madre Island, Tres Marias group; *Zenaida ruficauda robinsoni*, Colombia; *Melopelia asiatica mearnsi*, 5 mi. N. of Nogales, Arizona; *Leptotila verreauxi nuttingi*, Nicaragua.

519. A New Pigeon from Chiriqui, Panama. < Proc. Biol. Soc. Wash., xxviii, June 29, 1915, p. 139.

Oenoenas chiriquensis.

520. A New Pigeon from Jamaica. < Proc. Biol. Soc. Wash., xxviii, November 29, 1915, p. 177.

Chloroenas inornata exigua.

1916.

521. The Birds | of | North and Middle America: | A Descriptive Catalogue | of the | Higher Groups, Genera, Species, and Subspecies of Birds | Known to Occur in North America, from the | Arctic Lands to the Isthmus of Panama | the West Indies and Other Islands | of the Caribbean Sea, and the | Galapagos Archipelago | By | Robert Ridgway, | Curator, Division of Birds. | — | Part VII. | Family Cuculidae. Family Psittacidae. | Family Columbidae. | — | Washington: | Government Printing Office. | 1916. = Bull. U. S. Nat. Mus. no. 50, Part VII, 8vo, pp. [i-iv]-xiii, 1-543, pll. i-xxiv. (Issued May 5, 1916.)

1917.

522. Robert Ridgway, Ornithologist [anonymous] < Audubon Bull. (Chicago), Winter 1917-1918, pp. 3-18.

Written in part by Mr. Ridgway himself.

1919.

523. The Birds | of | North and Middle America: | A Descriptive Catalogue | of the | Higher Groups, Genera, Species, and Subspecies of Birds | Known to Occur in North America, from the | Arctic Lands to the Isthmus of Panama | the West Indies and Other Islands | of the Caribbean Sea, and the | Galapagos Archipelago | By | Robert Ridgway, | Curator, Division of

Birds. | — | Part VIII. | Family Jacanidae—The Jacanas. Family Phalaropodidae—The Phalaropes. | Family Oedienemidae—The Thick-knees. Family Recurvirostridae—The Avocets and Stilts. | Family Haematopodidae—The Oyster-catchers. Family Rynchopidae—The Skimmers. | Family Arenariidae—The Turnstones. Family Sternidae—The Terns. | Family Aphrizaidae—The Surf Birds. Family Laridae—The Gulls. | Family Charadriidae—The Plovers. Family Stercorariidae—The Skuas. | Family Scolopacidae—The Snipes. Family Alcidae—The Auks. | — | Washington: | Government Printing Office. | 1919 [published June 26]. = Bull. U. S. Nat. Mus., no. 50, Part VIII, 8vo, pp. [i-ii]-xvi, 1-852, pll. i-xxxiv.

1920.

524. Diagnoses of Some New Genera of Birds. < Smithsonian Misc. Coll. 72, no. 4, Publ. 2588, December 6, 1920, pp. 1-4.

Oroaetus, type, *Falco isidori* Des Murs; *Phaeoetus*, type, *Falco limnaetus* Horsf.; *Morphnarchus*, type, *Leucopternis princeps*; *Pernohierax*, type *Falco leucorrhous* Q. and G.; *Hapalocrex*, type, *Rallus flaviventris*; *Limnocrex*, type, *Porzana cinereiceps* Lawrence; *Thryocrex*, type, *Corethrura rubra* Selater and Salvin.

1922.

525. Mrs. Robert Ridgway. < Audubon Bull. (Chicago), Spring 1922, pp. 13-15.

1923.

526. What is *Buteo rufescens* Salvin and Godman? < Auk, XL, no. 2, April, 1923, p. 325.

Richly colored example of *Buteo borealis calurus*.

527. "Generic Subdivision"—"The Genus Debased". < Auk, XL, no. 2, April, 1923, pp. 371-375.

Letter to editor.

528. A Plea for Caution in Use of Trinomials. < Auk, XL, no. 2, April, 1923, pp. 375-376.

Letter to editor.

529. In Memoriam: José Castulo Zeledón. (Born March 24, 1846—Died July 16, 1923.) < Auk, XL, no. 4, October, 1923, pp. 682-689, pl. XXXVIII.

530. Some Observations on the Natural History of Costa Rica. < Ann. Rep. Smithsonian Institution for 1921 [1923], pp. 303-324, pll. 1-5 (10 figs.).

1924.

531. A Scene at Bird Haven. < Audubon Bull. (Chicago), Spring and Summer 1924, p. 46.

1925.

532. Dr. Ridgway Tells of his Early Days. < Olney [Illinois] Times (newspaper), June 4, 1925, p. 1 (continued on p. 5).

Interesting autobiographical matter.

533. Spring Notes at "Larchmound". < Audubon Bull. (Chicago), Summer, 1925, pp. 22-23.

534. The Birds of 'Larchmound'—A Resumé. < Bird-Lore, XXVII, no. 5, September, 1925, pp. 305-309, three illus. (photos).

535. Diagnosis of a new genus of Buteonine Hawks (*Coryornis*, gen. nov.) < Auk, XLII, no. 4, October, 1925, p. 585.

Type, *Rupornis ridgwayi* Cory (*Coryornis ridgwayi*).

1926.

536. Is the Love of Trees and Flowers Sign of Effeminacy? < Olney [Illinois] Times (newspaper), May —, 1926, p. —.

537. As to the Type of *Falco peregrinus pealei*. < Condor, xxviii, no. 5, September, 1926, p. 240.

1927.

538. The Advancing House Wren. < Cardinal, II, no. 2, 1927, p. [34].

539. Birds in their Relation to the Farmer and Fruit Grower. < Audubon Bull. (Chicago), no. 18, Spring and Summer, 1927, pp. 29-33.

540. Bird Haven: What it is and What it is NOT. < Olney [Illinois] Advocate (newspaper), October 27, 1927, p. —.

Los Angeles, California, September 25, 1927.