

*Our
Feathered
Game*



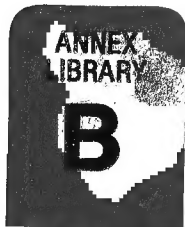
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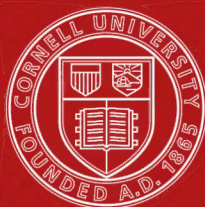
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OUR FEATHERED GAME



PARTRIDGE SHOOTING—SCATTERED BIRDS

OUR FEATHERED GAME

A HANDBOOK OF THE
NORTH AMERICAN GAME BIRDS

BY

DWIGHT W. HUNTINGTON

*WITH EIGHT FULL-PAGE SHOOTING SCENES IN COLOR
AND ONE HUNDRED AND THIRTY-FIVE BIRD PORTRAITS*

CHARLES SCRIBNER'S SONS
NEW YORK :: :: :: :: :: 1911

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OUR FEATHERED GAME

I

INTRODUCTION

SOME years ago I was shooting ducks in North Dakota with some army officers from Fort Totten. In looking over the bag one evening I found a number of birds which were entirely new to me. Several of them were not mentioned in any of the books on field sports. It occurred to me then that a book describing every game bird would be a valuable addition to a sportsman's library.

The authors of the earlier books had little or no experience west of the Alleghenies and many of the birds now taken by sportsmen were unknown to them. When Audubon and Wilson wrote their ornithologies much of the Western country was inhabited by hostile Indians and was inaccessible. Audubon was aware of the existence of the best American grouse, the sharp-tail, but said that he was entirely unfamiliar with its habits. Forester had no acquaintance with the common prairie-grouse. All the birds are now known, and described, but the information is contained in many volumes, and is, for the most part, too technical to entertain sportsmen.

There is not to-day a complete manual of the feathered game of North America.

Field sport conditions have changed much. They are diametrically opposite those of twenty-five years ago. Forester wrote of the marvellous abundance of game in the Eastern States, calling attention to the fact that there was not a game law or a game preserve in the land. With a friend he bagged one hundred and twenty-five woodcock in a day, quite near New York, and he records large bags of other game. To-day the game birds are nowhere abundant in the Eastern States: there is everywhere a multiplicity of game enactments and there are hundreds of game preserves.

The abundance of game in the United States was truly marvellous. It was not unusual for a sportsman to shoot one hundred ducks in a day, and the market gunners often killed as many at a single shot from a swivel-gun. There are reliable records of over a hundred shore-birds being killed at a shot. Bogardus with a friend shot three hundred and forty snipe one day in Illinois, and the writer was present in Ohio when the bag contained over one hundred and fifty partridges (Bob-whites), besides ruffed-grouse and woodcock. Grouse were killed by the wagon-load.

The prairie-grouse are extinct in many of the States besides Kentucky, where Audubon says they were regarded as pests on account of their destruction of the buds of the fruit trees. There are few places in America where one hundred ducks could be bagged in a day except on the marshes owned and preserved by clubs.

A few years ago the shooting everywhere was free and unrestrained. A posted farm in the Central and

Western States was the exception. The few game laws on the statute books were nowhere enforced, and the market gunners plied their trade unmolested, in season and out. Vast quantities of birds festooned the fronts of game-stores in all the cities, and filled thousands of barrels and boxes which were handled by commission men.

Forester doubted if the breech-loader would ever come into general use on account of the inconvenience of the little cases in which the loads were carried. I spent a whole day in New York recently in a fruitless effort to find one of the old single muzzle-loaders to be used in making an illustration. The muzzle-loading double gun is rapidly becoming a curiosity.

The dogs have been carefully bred for speed and endurance and that quality known to sportsmen as "bird sense," and are now trained to the highest degree of perfection. The field trials of these animals, which had a small beginning in 1876, are to-day events of much importance where large purses are offered. There were no fewer than thirty of these competitions in America the past year.

When it became evident to sportsmen that the game was rapidly vanishing, the legislative assemblies were appealed to, and we soon had many game laws. These were directed principally toward the shortening of the open season, the prohibition in many places of summer and spring shooting, and, most important of all, the prohibition of market shooting and the sale of game. Laws were passed limiting the size of the bag to be made in a day, in some States to a very small number of birds. Other laws provided for a license of from

\$10 to \$40 for non-residents and a smaller license usually for residents. Two States prohibited the shooting by non-residents within their borders. In addition to these laws, now in force almost everywhere in the Northern States, there are many others of less importance, or of a local nature, such as the law in New Jersey, for example, which prohibits all shooting when there is a "tracking snow" on the ground. In many of the States the season for all game closes by the first of the year and opens in October or November.

These laws were supplemented by a national law (known from its author as the Lacey law) which prohibits the shipment of game by interstate commerce wherever its sale or transportation is prohibited by State law.

Since the passage of the laws prohibiting the sale of game in most of the Northern States, game birds are no longer exposed openly in the markets where such sales are illegal, but the laws have been evaded in many ways. Vast quantities of game are handled each season by the cold-storage warehouses. Mr. Starbuck, President of the Cuvier Club, one of the strongest game-protective clubs in the United States, referred in a recent address to the seizure in 1891 of 7,931 grouse, 5,571 partridges or quail, 96 woodcock, 1,324 ducks, 8,848 plover, 7,108 snipe, 8,328 snow-buntings, 7,607 sand-pipers, 1,008 reed birds, and 738 yellow-legs, at a cold-storage warehouse in New York, the penalties amounting to \$1,168,315. The agents of the Government last fall made a seizure of five thousand partridges at a small station in the Chickasaw Nation. President Starbuck says: "Wagon-

loads of small game have been going out of the woods with astonishing frequency. The sportsmen throughout the country should ponder on the important facts which have come to light in connection with the above seizures. Let them consider that each large city of the country has many of these cold-storage warehouses, in which there may be illegal game in numbers almost as large as was found by the above arresting officials; and besides these large warehouses, there are many others in smaller places of less capacity."

Mr. Hornaday, who has made a careful study of the decrease of bird-life and has gathered many facts to support his statements, estimates that thirty-three States and Territories, comprising three-fifths of the total area of the United States, show a decrease in the number of birds of 46 per cent. during fifteen years. The decrease in game birds is fully 75 per cent.

The Agricultural Department, in a recent bulletin, says that the woodcock and the wood-duck are in danger of extermination. The fact that in the great seizure of game above mentioned but ninety-six woodcock were taken is significant.

Professor Dury says: "The game birds of Ohio and the Central States are being rapidly reduced in numbers, and some species to the very verge of extinction." The ornithologist Elliot, in his recent popular work on the wild-fowl, says: "While engaged upon this book I felt that I was writing the history of a rapidly vanishing race."

Forester referred to the fact that the sportsman often slipped out the back way, when going afield, since there was a prejudice among his neighbors against all sport,

and no distinction was made between the terms sportsman and sporting-man. Such puritanical notions no longer prevail. Sportsmanship is now fashionable. The sportsman of to-day no longer slips out the back way, but travels more often in a luxurious railway car, especially constructed for his comfort and convenience. Thousands annually go to the domain of the sage-cock, the sharp-tailed grouse, and the plumed and crested partridges.

No country in the world was so well supplied with feathered game. The largest and most magnificent pheasant in the world (the wild turkey) heads the list. There is a splendid assortment of grouse, including the second largest grouse in the world, three fine grouse of the open country and five wood-grouse, one of which, the ruffed-grouse, is often called the king of game birds. Bob-white is the best all around partridge, and there are five other plumed and crested partridges which rival in beauty those of the Old World. Fourteen shoal-water ducks or dabblers come to the marshes, including the mallard, three teal, the gorgeous wood-duck, the handsomest duck in the world, and the rest, all excellent food-birds.

The far-famed canvas-back heads the list of twenty-four deep-water or sea ducks, one of which, the pied-duck, formerly abundant in the New York markets, is now unfortunately found only on museum shelves. There are but forty-two specimens in the world. The best of these are in the American Museum of Natural History, New York. We have a fine assortment of swans, geese, and brant. Turning to the shore-birds or waders, we find the splendid woodcock and

snipe, the delicious field-plover, and more than half a hundred others, more or less desirable as marks or food. North America has (or had) more than its share of the wild pigeons of the world. The passenger pigeon has gone never to return. But the band-tail, a fine bird, still remains in goodly numbers on the Pacific Coast, and there are a number of other excellent pigeons and doves which are still shot by sportsmen. There are two edible cranes. The king-rail is a large and toothsome bird, and the smaller varieties all are good to eat.

It is with some regret that the writer has observed the change from the old conditions to the new. Although clubmen are everywhere cordial and hospitable and there are invitations enough to shoot over private preserves, there was a charm about the tramp over virgin fields when there were no game-laws, club-rules or restraints of any kind, not soon to be forgotten.

At the outset we are met with the difficulty of determining what birds are game. I have decided to include in my commentary all birds which are legally taken by sportsmen, save one—the robin red-breast (which is legally shot and devoured in some of the Southern States)—giving more space to those deserving of it. There are many which I would willingly see protected at all times.

My observation of the birds is from the sportsman's blind, or as he sees them in a tramp across the field, with dog and gun; a sufficient description, however, being given in the notes at the end of the volume to enable the reader to identify the species. We do not go to the museums to compare skins with the naturalists in the hope of creating a sub-species,

but to the fields to shoot over those still open, as well as on club grounds and private preserves, making some inquiry by the way as to the natural history of our game, and the new methods of preservation and propagation.

II

GUNS AND DOGS

THE advice given by Polonius, "Costly thy habit as thy purse can buy," applies as well to guns to-day as to the clothes of Hamlet's day. The sportsman in selecting a gun will do well to purchase the best he can afford. A good gun will last a lifetime. A cheap gun will soon wear loose at the breech, and a shaky gun is an abomination. The locks of a good gun will never miss fire, and will work with the precision of a costly timepiece. The barrels will not wear out or burst. A certain amount of good engraving about the locks adds to the beauty of a gun and gives it a finished look, but do not spend money on the fancy engraving of shooting scenes with impossible ducks, pheasants, or dogs inlaid in gold. The best guns, some years ago, were made in England, and a real good one was not to be had for less than \$150 to \$200. The guns have been much improved of late; there are many excellent American makes, and a very safe and serviceable gun may be had from \$50 up. There are much cheaper guns, to be sure, but I would not advise buying them. A gun for general shooting, when the sportsman has one gun only, should be 12-gauge; the barrels thirty inches in length; the weight seven to seven and one-half pounds. The gun should, of course, be hammerless, since the hammerless gun

is by far the safest. Most of the accidents in the shooting field have been caused by the old-style gun with hammers. I have known of many accidents caused by the hammers catching when the gun was carelessly drawn toward the shooter in a boat or wagon. Many accidents have occurred by the gun being fired by the dog. A favorite setter sent a load of shot within an inch of my head. I had put the gun down; was holding it with one hand and about to open a gate when the young, enthusiastic dog, prancing about, put one foot on the hammer, raising it high enough to explode the cartridge when his foot slipped off.

I may say, in passing, that there should never be more than one gun in a duck-boat, and never a loaded gun in a wagon, except when the wagon is used to approach game, as in shooting the upland plover, and in that case there should be no more than one gun in the wagon and that always held in a safe position with the muzzle pointing outward. I have always insisted upon an inspection of the guns—all tipping them open to show that they are empty—when several are using a wagon, and will on no account shoot with a man who brings a loaded gun into a wagon. It is unnecessary to advise a sportsman never to point a gun, loaded or unloaded, at a person. The penalty for a boy's doing such a thing should be the loss of his gun. It is the unloaded gun, usually, that kills a companion. There should never be any uncertainty as to whether the gun is loaded. Remove the loads in getting over a fence, especially if the fence be at all shaky. It is a safe rule always to remove them.

The 16-gauge has many advocates. I have seen excellent work done with it, and have found it light and serviceable in partridge shooting. Much smaller bores are used, but I do not think well of a smaller gauge than 16, since there is more danger of wounding birds with small guns, and the sportsman should always try to kill "clean." The 14-gauge is very little used, but I have owned such a gun and am inclined to think it a little better for upland field shooting than either the 12 or 16, but the 14 is used so little that it is difficult in most places to get ammunition to fit it. The heavy 10-gauge was, a few years ago, carried in many fields, but it is seldom seen to-day excepting where it belongs, in the duck blinds, when the game is the wild geese and the heavy-plumaged sea-fowl. Larger guns are not found in the equipment of many sportsmen. They are prohibited by law in some of the States. The only persons who ever used the swivel-gun or cannon were the market gunners, and they have almost everywhere been put out of business by legal enactments.

It is all important in selecting a gun that it fit the shooter. The fit of the gun is far more important than the fit of the clothes. Good shooting is dependent upon it. A gun which fits is said to "come up" well or handle well. By that is meant that when it is tossed suddenly to the shoulder it will be so poised that the eye will see along the barrel and the aim be true without further adjustment of the gun. Some shooters prefer a straight stock; others a crooked one. The beginner should take the gun which for him comes up the best. Many years

ago, when I purchased my first expensive gun, I named the price I expected to pay and had the dealer stand out some twenty or thirty guns of various makes, all good ones, however, and taking these one by one I aimed them suddenly at a small object of some kind in the store with both eyes opened, then closed one eye to see how accurate the instantaneous aim was. Handling the guns one after another I discarded those at once that did not come up well and soon had but a half dozen left. Using these one after another I soon found one which seemed to fit me exactly and which had a fine balance and was in every way satisfactory. With this gun I did excellent work the first day I went into the field for partridges. I of course obtained a gun by a good maker, since there were no bad makers represented at the start. But I preferred fit to maker. All the guns from which a selection is to be made may of course be by a desired maker, provided the stock be a large one; or for that matter, a gun is often made to order, the measure being taken from a gun found to fit. The good points about a gun are careful workmanship, strength, and fit.

The gun being selected, the beginner will do well to bring it up often unloaded, aiming it suddenly at small objects about the room, and then use it much at the inanimate targets, the clay pigeons, which are thrown with great velocity from the spring-traps. Do not in practice for field shooting stand with the gun at the shoulder and say "pull" to the boy at the trap, but hold the gun at any and all of the different positions in which it may be held in the field either in the presence of game or when walking about. *After giving*

the order to the boy to release the target pitch the gun to the shoulder and fire. It is often said that good "trap-shots" are not good "field-shots" and *vice versa*. Of course a man cannot go walking about the field with the butt of the gun always at his shoulder. Hence he should not so hold it when shooting at the traps if he would become a good field-shot. He may be beaten at the traps by the shooter who holds his gun at his shoulder, but he will defeat the latter in the field. Much field-work, however, is necessary to make a good field-shot.

In shooting at the traps I shoot much at double birds. The double shot in the field gives the most satisfaction, and to make double shots one must be accustomed to the quick use of the second barrel. In shooting at single clay pigeons I always fire the second barrel at any large fragment which may go sailing away when the first shot does not smash the target into the minute fragments which one likes to see.

Books have been written about the use of guns, but it is most important to aim quickly; to aim well over rising birds and under descending ones and far ahead of fast-flying marks crossing the line of sight, either directly or at an angle. Remember that more shots are missed by shooting behind than ahead of the birds. A few shots at ducks or shore-birds flying low over the water will teach the shooter much, if he looks to see where his shot strikes the water. The shooting at one duck to see another many feet behind it fall dead will be another lesson. It takes many lessons to make a fine field-shot.

Always shoot with both eyes open. The mark is

seen better and the rate at which it is moving is more rapidly estimated.

I shall have something more to say about guns and loads in connection with the various birds in the proper place.

The dogs used in upland shooting in the United States are usually the pointers or setters. Small spaniels are used to some extent for cock-shooting, but not so much as in England. The setter and the pointer are both excellent dogs. The "pointer-man" insists that the pointer is the only dog. The "setter-man" usually will have only setters. I have shot over both dogs, in many fields. The setters, with their silky coats, feathered legs and tails, to my eye, are the handsomer dogs. I know of no more beautiful animal in all the kingdom, than a well-marked English setter. The long hair, I admit, collects the burrs, and the dog is often badly used up by them, while but few, if any, stick to the pointer. The pointer will go farther in warm weather, and without water, and he is an excellent dog for the prairie. The setter is the better dog in cold weather, since the pointer shivers whenever he is at rest and it makes one cold to look at him.

Pointers are by some regarded as slower dogs, but the modern pointer of field-trial stock, will go like a greyhound, and is fast enough in any field. I have seen them keep the setters busy on the vast Western prairies.

There is much talk, now that field-trials are held annually in all sections of the country, about the comparative merits of "field-trial dogs" and "shooting-

dogs." The competitive running of dogs for short heats and at a high rate of speed (the dogs going at long distances from the gun), it is argued, does not make good shooting-dogs. Fast wide-ranging dogs are often lost in the thickets and often get beyond the range of the whistle. But speed and endurance as well as "bird sense" are the qualities which go to make up a good field-dog, and after listening to the controversy until the small hours, between field-trial men and shooters, at the tavern, after a field competition, I have arrived at the conclusion that the sportsman will do well to select for his shooting, a dog of field-trial stock, but one that has been especially trained, not for a field-trial, but to hunt to the gun, as it is called, or for field shooting. The slower dog, hunting carefully before the gun, is often referred to as a "good meat dog." By that is meant, of course, that more birds will be killed over him. There is much force, however, in the saying of the handlers: "You can teach 'em to stay in, you can't teach 'em to go out." Give me the field-trial dog with all his energy and industry, trained down to hunt to the gun where there is cover. On the vast prairies of the West, he cannot go too fast or too far to suit me, provided always he be stanch on his point and will always hold the birds until the wagon arrives.

There are three kinds of setters used in America, the English setters, the Irish setters, and the Gordons. The first-named are the most popular dogs. They are of all colors. The black, white, and tan, and the orange and white dogs are to my eye the handsomest. In each case I like to see the head evenly marked, a broad

white line running from the nose over the forehead and the legs well ticked with tan or orange. Dogs of medium size, rather large than too small, I like the best. They should, of course, be well-formed, strong and muscular. The Irish setters are dark red, the Gordons black and tan. White dogs, or dogs in whose coats the white predominates, are best, since they are more easily seen in the woods and brush. We hear much of "bench-show" dogs and "field-dogs." The dog should be handsome enough to win on the bench and good enough to take into the field. Field qualities, not looks, are of the first importance, however. One of the best setters I ever owned, was a liver and white dog, and his first owner, an excellent trainer, had mutilated him by cutting off part of his tail and named him Bob in honor of the occasion. In the field, however, he was a wonder, and I could not resist buying him, although I liked neither his color, his tail, nor his name. There are many reputable dealers and many good trainers; and some bad ones unfortunately, as among horsemen. •

Dogs of good pedigree will point birds without any training, and are not hard to train sufficiently to make good field-dogs. First of all they should be taught to come instantly to the whistle. Begin when they are quite young to have them associate the sound of the whistle with their liberation from the kennel, and as a call to meals. I have often gone to my back-door and sounded a whistle to see a lot of bright-faced puppies instantly appear at the stable windows. Having immediately let them out I fed them. Sometimes I placed the food at the other side of the house and

from thence sounded the whistle, and it was remarkable to see how soon the puppies learned to come when called. Taking them to the fields without a gun, with a few scraps of food in the shooting-coat, I rewarded the first to arrive after the whistle sounded and my dogs soon learned to come in as fast as they went out. Meantime teach the young dogs to drop or charge at command, rewarding them for quick action, and to walk at heel until ordered to go out. Taking the young dogs to a covey of partridges, flush the birds after the dogs have pointed, and check any tendency to chase when they take wing. Use a cord when necessary, which will bring the dog up suddenly when he runs the length of it, and punish with the whip, using it as little as possible, however. Firing a pistol at some distance from feeding puppies will often prevent the dogs becoming gun-shy, a serious fault. If a heavy load is fired over a young thorough-bred dog before he is accustomed to such noise, he may be ruined. A gun-shy dog is usually worthless. He may be cured, but is more often not worth the training. Some teach their dogs to retrieve. It is a showy performance in the field and I like to see it. A dog should point the dead bird first and retrieve it upon an order to do so, handling it with great care. The danger is that a dog will sooner or later mouthe and thus mutilate the birds.

There is much that is entertaining in giving young dogs their instruction, but a lot of patience is required, and it takes much time. All training should be persistent. A little every morning and evening, each day, will accomplish more than a whole day of it now and then. Stop when the young dogs seem to be getting

tired of it and take it up again later. They should have their play-time as well as their school-time.

In England and on the Continent dogs are especially trained as retrievers only. Much of the shooting is done differently there. The birds are often driven toward the shooter by beaters or drivers, and the retrieving dog is kept in until birds are shot, and then ordered to retrieve. I much prefer to tramp across fields and to see the dogs galloping about, industriously searching for the birds, and stanchly pointing them, and last of all retrieving the slain.

The cocker-spaniels are trained to hunt close to the gun. They do not point, but give tongue when the cock takes wing.

For wild-fowl shooting, larger retrieving spaniels are mostly used, and they have wonderful noses, and find and retrieve the dead and wounded wild-fowl in the heaviest rushes and reeds.

The Chesapeake Bay dog is supposed to be a cross between the Newfoundland and the water spaniel. They are strong, heavy-coated dogs, especially suited to the rough work in icy waters. They will swim for miles among cakes of floating ice, and retrieve the largest wounded goose or swan.

The beagles are small dogs resembling hounds, and are used like hounds in packs in shooting the hares, usually the small animal known as the common rabbit or cotton-tail. I shall refer again to the dogs and their use on game when considering the various birds. Let the beginner take the advice of some older sportsman in the purchase of a dog and the selection of a trainer, and he will not go wrong.

Thoroughly broken dogs are not to be had for less than \$100. Setter and pointer puppies of excellent pedigree may be purchased for \$20 and up. Good trainers usually receive \$100 or more for training a dog for the shooting-field or for a field trial. Sportsmen who keep a large kennel, of course employ a handler by the year. A field-trial winner is often sold for several thousand dollars, and his services at the stud are \$25 or \$50, more often the last-named amount if he has won first place in an important event.

The reader who desires to train his own dogs will find several good books on the subject. "Training *vs.* Breaking" by Hammond is one of them.

III

GAME CLUBS, PARKS, AND PRESERVES.

THERE are now in the United States many private parks and game preserves where game birds are as carefully propagated and protected by individuals as they are on the preserves in England. There are also hundreds (I am almost prepared to say thousands) of clubs or associations formed to own and control the shooting over vast areas of both marsh and upland.

All of the private parks and most of the clubs are of very recent date. In Forester's day, as I have observed, there was none, and there is nothing about them in any of our books on field-sports.

Private parks or preserves owned by individuals are comparatively few in number in the United States, but as wealth increases there will be more. The management of the private park is similar to that in England. Game-keepers are employed to protect the game from poachers, to destroy its natural enemies, and to feed it and care for it at all seasons. There are hatcheries for the imported birds, the pheasants, where many birds are propagated each season, as described in the chapter on these birds.

Many of the private parks are miles in extent, and contain large game as well as small. Mr. Whitney's

October Mountain in the Berkshires, Biltmore in the South, the Austin Corbin estate in New Hampshire, Rockefeller's Adirondack Park, the Rancocas game-preserve in New Jersey, and other private estates, including some of vast proportions on the Pacific Coast, have been created in the past few years.

By far the greater number of private game-preserves are in the hands of associations or clubs. These are of limited membership. One or two on Long Island and at Currituck have but a half-dozen members. Others, like the Nittany Club in Pennsylvania, have as many as two hundred. The average membership is from thirty to fifty.

Some of the clubs are composed exclusively of duck-shooters, and are formed to control the shooting over marshes where the wild fowl and wading birds are to be found when migrating. In other clubs the members are interested in shooting on the upland. A few of the clubs have both kinds of shooting.

They are all organized upon somewhat similar lines, and in most cases are incorporated under the State law where the preserve is situated. The articles of incorporation contain—

1st. The name of the club or association.

2d. The object for which it is formed, usually—"To own and lease lands, and shooting and fishing privileges; to aid in the enforcement of game and fish laws," etc.

3d. The number of members and shares.

4th. The place where the principal office shall be located and the meetings held.

The constitution and by-laws provide for the elec-

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tion and qualifications of members, usually that they be males twenty-one years of age, and that they receive the vote necessary to elect them. Two or three blackballs are usually sufficient for rejection. The officers are a president, vice-president, secretary, and treasurer, whose duties are similar to those of the officers of other clubs. As a rule, the shares can be sold by a member only to a person who has been duly elected to membership. The shares in a shooting club are often issued at \$100 or \$200. In many of the clubs they are now held at \$5,000, and sell for even more in some cases. There are annual dues which vary in amount from \$25 to several hundred dollars.

In addition to the house committee, whose duties correspond to those of a city club committee, there is a game and fish committee, whose duty it is to attend to the stocking of the grounds of the upland clubs, to provide for the propagation of the pheasants, and generally to care for the game, employ the game-keepers, etc. At the duck clubs this committee provides for the feeding, or baiting as it is termed, of the ducks, and the erection of the blinds, and has charge of the live decoys and the boats, and employs the superintendent and the guides or punters. One of the duties of the game committee of the Wyandanch Club (Long Island) is to hire men "to plant patches of grain to be left standing." This committee should also on all upland preserves provide shelter for the birds in the winter and nesting-places in the spring, such as brush-heaps, corn-shocks, and brier and grass patches, and the committee should also see to the destruction of the natural enemies of the game.

Both the upland and the duck clubs own a farm, where the club buildings are erected and where the superintendent and his family reside. The superintendent has charge of the club buildings and grounds, and, with the aid of watchmen or guards, prevents poaching and all trespassing on the preserve. Where the entire preserve is not owned by the club the privilege to shoot over the marshes and farms is usually leased for a term of ten or more years, with a privilege of renewal. It would be well always to have a privilege of purchase in the leases at a fixed price, since the ground sometimes becomes valuable in an unexpected way. Oil, for example, has been discovered on a game-preserve. A system of drainage may raise the price of a worthless marsh and at the same time destroy the shooting.

Some of the clubs are for members only; others permit a member to bring his family to the club-house; not, however, during the shooting season, and to bring guests for the shooting. At other clubs a member is not permitted to invite a guest. Such is the rule of the Ottawa Club, for example. Here there are fifty members, and when the shooting is good, there are scarcely enough good stands for all, since one-half of the blinds are always undesirable on account of being on the windward points or shores. At many of the clubs, however, the members are allowed to invite a friend for several days' shooting. The member is always required to accompany his guest, and is held responsible for his conduct and for the payment of all club charges. One of the Currituck clubs which I visited recently has a rule allowing a member to bring

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a friend for two days' shooting, having first obtained an invitation from the club-officers, and the member is charged \$5 per diem for this privilege, and is required to pay the usual club charge for board, \$1.50 per diem.

The club-houses are often large and comfortable. Many of them are shingled and are picturesque in color and outline. The main building always contains a large room with an open fireplace where wood is burned. A fine view is to be had from many windows. There are well-filled bookcases, cases full of mounted game birds, easy-chairs, and tables filled with magazines and papers. The sleeping apartments overhead are nicely furnished with comfortable beds and each has a fireplace or stove. There are often inspiring pictures on the walls—Japanese geese flying away from excited Americans, mallards and other ducks falling to the successful shot, etc.

The superintendent and his family live in their own house near by, and there are often dormitories or cottages for the use of members in addition to the main club building. The superintendent has the use of the club-farm, and at the duck clubs his guards or watchmen have the privilege of trapping muskrats and other animals which may be found on the marsh. At the boat-house each member has room for his boats, and a locker in which to keep his decoys, rubber boots, coats, etc. There are kennels for the dogs, and a club rule usually prohibits anyone from using a member's dog without his permission. There is a small monthly charge for keeping the dogs—\$3 per month at the Wyandanch Club, and for puppies \$2 per month after they are two months old, and until they are one year

old. Since the distances on the preserves are great, many of the clubs have erected one or more cabins miles away from the club-house, where may be found firewood and a few canned provisions, a bed or two, and some blankets for the use of any club-man who may be out too late to return to the main club-house. This has been found necessary, since the duck shooting is often best just at sundown, and on a dark night it is often impossible to find one's way in the marshes.

The night before the opening day of the season at a duck club, the members present draw for positions or blinds. An arrow connected with a weather-vane on the roof swings about a disk on the ceiling marked with the compass-points, indicating which way the wind blows; and a crowd of enthusiastic sportsmen glancing at the arrow, select by lot their places for the morning's shooting.

Upon his arrival at the club-house each member is required to register for himself and guest, and the time of his departure is also noted in the same book. Another important and interesting book at all the clubs is the game-register, which contains the names of the birds found on the preserve. These are printed across the top of each page. A member, at the end of each day, is required to enter his name on this register, at the left-hand side of the page, and the number of each kind of birds shot. At the right of the page is a place for remarks about the wind, the weather, the place where the shooting was done, and the name of the attending guide or punter who may have assisted in gathering the wounded birds, or possibly the unwounded.

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Scores from one of the Lake Erie clubs and one of the clubs at Currituck would read something like the following :

DATE AND NAME.	Canvas-back.	Mallard.	Red-head.	Blue-bill.	Widgeon.	Gadwall.	Black Duck.	Pintail.	Shoveller.	Blue Wing Teal.	Green-Wing Teal.	Butter-bill.	Geese.	Swans.	Ruddy Duck.	Snipe,* etc., etc.	Total.	REMARKS.
1895, Nov. 21 H. S. A. S—..	..	..	..	..	20	..	..	..	..	10	..	..	..	..	..	..	30	Little mud-hole, wind N.E.
1895, Nov. 15. J— H—.....	..	1	..	..	1	..	..	..	..	3	1	..	..	..	..	..	6	Graveyard pond, wind N.
1901, Nov. 12. H. C. H. & son ..	73	1	..	4	..	21	6	10	..	2	..	..	..	..	..	..	117	Black water cove, wind N. E.
1901, Nov 12. D. E. P—.....	17	..	..	1	..	5	..	..	..	..	..	2	7	..	..	..	32	Fishers cove.

* There are usually more birds on the register, but enough are here given to show the form.

These registers are entertaining and instructive records, valuable to sportsmen and ornithologists alike, when they have been well kept for a series of years, as they have been at the Crane Creek Club, the Winous Point Club, the Princess Anne Club, and many other clubs East and West. At some of the clubs there are but few entries in the registers at long intervals, and they are correspondingly uninteresting. By a rule of the Castalia Club the directors are instructed to see that the rule requiring members to register the fish and game taken is enforced. "And for that purpose they are directed to require the keeper to personally see that all members register, and in case of failure so to do, or in case of their making erroneous entry, it shall be the duty of the keeper to make correct entry

upon the register and forthwith report the infringement of the rule to the directors." When there is a rule providing for a bag limit per season as well as per diem, it is of course important that the entries on the register be correct. Birds or fish taken by a guest are charged against the member inviting him. The Castalia Club has another good rule which provides that shooting or fishing during the time when the shooting and fishing are illegal, or prohibited by the rules of the club, shall be deemed sufficient cause for expulsion of the member so offending.

Most of the clubs have a rule which prohibits all shooting by the punters, guides, or attendants. No rule, I am satisfied, is more often broken; the punter usually carries a gun, is an excellent shot, and his employer is often ambitious to make a large bag of birds. A member of a Western club, in discussing this question with me, said the rule was enforced at his club, but at one adjoining the members could not shoot a "little bit," and often took out two punters to do the shooting for them, and, of course, made good scores.

A half-hour later I was conversing with the president of the adjoining club referred to, and he said the rule in their club was, of course, strictly observed. "We might as well," he said, "allow our servants to drink our champagne as to allow the punters to do the shooting which we have secured at so great an expense for ourselves. Our neighbors," he added, confidently, "do not observe the rule. They often take out two or three men to do the shooting. They cannot hit a barn-door—most of them, you know," etc. The same day I related these contradictory stories to still

another club-man as something amusing. He, however, colored slightly and said: "I allowed my punter to shoot a few dozen ducks for me one day, but I had a hard headache and was shooting badly in consequence. I do not believe in it at all—not at all." And so it is that duck-murder, like other kinds, will out.

At a club down by the sea I saw an enthusiastic sportsman go out with two punters, each armed with a heavy gun, and heard the guns booming until ten o'clock at night, in utter disregard of the State law and a club-rule which required that the shooting cease at sundown.

At many of the clubs the shooting is excessive and is kept up in the spring, after the birds have mated, with results, of course, disastrous to the game. At two of the clubs at Currituck, the spring shooting was recently prohibited by a club rule, and many of the ducks remained to breed on the club property. It is estimated that ten thousand ducks were raised there the first year.

The simplest form of game-club is found quite near New York. Certain sportsmen of New Jersey have combined to control the shooting over many farms where the ruffed grouse and partridge live and where the woodcock still come upon their annual migration. They lease the right to shoot for a term of years, paying no money rental, but agreeing to make the farmers members of the association without the payment of dues, to stock the land with game, and to be responsible for all damage to stock and fences, or of any kind, whether it result from the acts of members or trespassers. The association further agrees to police the

ground, and to feed and care for the game, and renew it when necessary.

On these preserves, of which there are several, there are no club-houses. The members drive out from Newark and the other cities and return at night, or perhaps find shelter at the farm-houses on the club-grounds. Other upland clubs in the Middle and Western States pay a money rental for the shooting, usually sufficient to pay the taxes on the land.

Since all game-preserves in America are new, many of the older methods of pursuit still prevail. There is a tendency, however, to imitate foreign ways. Sportsmen who a few years ago rowed their own boats, set their own decoys and carried their own game, are more often nowadays accompanied by a punter who punts the boat, places the decoys, carries the game and in many ways lightens the burdens of the sport, and sometimes loads the guns and even does the shooting. In England the ducks have long been "disturbed" by keepers or beaters and driven to the guns. At many of the American clubs the ducks are "disturbed" by punters, who punt or sail a boat and drive the birds from the open water. The birds are usually baited with corn or wheat at given points where the blinds are erected, and often when the season opens are very tame and afford quite easy shots.

In England, a few years ago, much of the upland shooting was done over dogs, the setters or the pointers. It was in England that these dogs were brought to the highest state of perfection, and all the best dogs in America are descended from this English stock. On the preserves to-day in England the pointers and the

setters are seldom used. The sportsmen are driven to the grounds, each attended by a servant to load his guns. A line is formed. A company of beaters, under the head-keeper, armed with flags on poles to prevent the birds from turning back, "moves" the partridges and drives them to the guns. The shooting is quite rapid. The bag is large. Since the birds are under full headway when they reach the line of guns, much skill is required to bring them down. Two guns are used, the attendant loading one while the other is discharged. When the shooting is over the sportsmen are driven to the house of the owner of the estate whose guests they are.

Mr. A. J. Stuart-Wortley, a talented English sportsman and writer, says: "The pointers and setters have been abandoned, almost, in England, on account of the disappearance of the old-fashioned stubble." It seems strange, however, when so much is expended on the game, that sufficient cover is not provided for it. In shooting grouse upon the moors, the birds have long been driven to the guns. Retrieving dogs are used exclusively.

Are the ramble in the fields and woods, the observation of the well-trained dogs, the chief charms of sportsmanship, to be exchanged in America for a stand beside a fence, with a servant to load the guns? Such results may follow the coming of the private game-preserves. Pheasants will, no doubt, be shot at an American *battue*, since they often run before the dogs. Our Western grouse may be driven to the ambushed guns. This, indeed, is not so bad, since they are far too easy "over dogs." Long be the day, how-

ever, before the best game-bird in all the world, Bobwhite, shall be clubbed by shouting beaters from the fields, and driven to a line of guns. Stranger things have happened at the hands of fashion. I am inclined to predict that the shooting at driven birds is not far off. From England came the epidemics of the tennis-court and golf. From England came the riding to the hounds.

There is in America much prejudice against the private game-preserve, probably on account of its association with aristocratic and monarchical institutions. Large country seats and palatial city houses have, however, the same association without the game. Prejudice against the private game-preserve may prove an argument in favor of the public park or refuge, and this is far more important to the safety of the game.

In England the private parks have for centuries preserved the game. There, although the bags are often large, the killing is limited to the increase of the year. Enough are spared to restock the grounds. Clubs there are, no doubt, in America, which are a benefit to the game. How many of these there are I do not know. Many there are which work a serious harm. Rivalry and shooting for count, or to be "high gun," often result in a slaughter equal to or worse than that when the marshes and fields were all open ground.

Such recent records as the killing of one hundred and four mallards in a morning by one gun on an Ohio preserve, the killing of four hundred teal in a day by four in Oregon, the killing of four hundred and seventy mallards by three guns on an Illinois preserve, and the recent killing of two thousand ducks by nine

shooters in a day in California, would not indicate a desire to save the ducks. The fact that at many of the upland clubs the partridges must be renewed each year, proves that they fare no better. The Lake Erie group of clubs are recently reported as arrayed against legislation prohibiting the shooting of wild-fowl in the spring, when, of course, the birds should be allowed to mate. The killing of canvas-backs at the Lake Surprise preserve in Texas *for the market* is only equalled by the disgraceful performances on the haciendas in Mexico, which are described later. The recent claim of the members of the Blooming Grove Park Association that they have a right to ignore the State and federal laws, and kill and ship game out of season, asserted in a federal court, does not indicate a desire to save the birds.

The decrease in value of the shares in game-preserves on the Chesapeake and elsewhere, and many other facts, might be cited to prove that private game-preserves do not sufficiently protect the game.

Clubs there are, as we have observed, which have rules limiting the size of the bag, but so long as the birds show a rapid decrease year by year it is evident that the private game-preserve is not a sufficient safeguard for their preservation. Ornithological writers continue to predict the extermination of all game.

The National Park in Wyoming has done much to save the elk and deer, the bison, mountain sheep, and bears from extermination. The last named are already amusingly tame and are taken by the touring kodaks every year.

The State parks of New York, in the Adirondacks

and on Long Island, will no doubt save the deer and the wood-grouse, and, it may be, the moose which have recently been restored to the Northern woods. National and State parks are, however, few in number, but the matter of their increase now claims the attention of sportsmen and all others interested in the subject of game-preservation. The number of these parks should be increased in time to save the turkey and the grouse, the wild-fowl and the waders, as well as the larger game.

The army of migratory birds which annually crosses the United States moves north and south in three divisions; one following the Atlantic, one the Pacific Coast, and the third the great valley of the Mississippi River.

There should be parks, State and national, in Minnesota, North Dakota, and Montana, to include small lakes and ponds where the wild-fowl still build their nests, and where the northern-grouse, the sharp-tails, and the great sage-cock could be safe from persecution. There should be parks of refuge for the swans, the geese, and ducks, adjacent to the Gulf of Mexico, where these birds might safely pass the winter.

The wild-fowl which now nest in these Northern States in a very few years will be found there no more. The Southern refuge is equally important. The slaughter, not alone in our marshes, but on the haciendas of Mexico as well, is something beyond belief. Many of the ducks which now go each winter to the "Armadas" of Mexico to seek the peace and quiet which precedes the slaughter, are driven from our Southern marshes by continued persecution.

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Ducks have a strong protective instinct and have been known to reason well. They soon learn where they are safe, and an inexpensive refuge in what is now a worthless marsh would save them from the destruction which awaits them across the Rio Grande.

Louisiana has recently prohibited non-residents from shooting in the State. Far more good would be accomplished by the State preserves. There should be parks of refuge in Oregon and Washington, where the wild-fowl still remain to nest; on the Sacramento marshes in California, and in southern California, where the slaughter in the winter is immense. Woodcock, snipe, plover, and many other shore-birds, cranes, and rails all resort to the marshes, and such parks as are here proposed would surely save these birds.

State parks in the north of Maine, at Albemarle or Pamlico in North Carolina, and in the Everglades would save the wild fowl which now travel through the Eastern States in sadly diminished numbers, and probably restore them to New England lakes. Had there been public refuges a few years ago the passenger pigeons which came like clouds in the sky to the forests would not now be extinct. Had there been State parks in Ohio and Kentucky, the prairie-grouse would be found in their fields to-day.

For many reasons the game-refuges should be under the control of the National Government. Since it has been legally held that the ownership of the game is in the State, uniform national laws for its preservation, which have been proposed from time to time, can-

not be enacted. The game-laws being therefore State laws, there is a deplorable lack of uniformity. New England awakens to the fact that the magnificent woodcock is a vanishing bird, and stops the summer shooting ; but the birds, more tame on that account, fall an easy prey to the market-gunners, who, in most of the Southern States, may shoot them after they have paired in the spring. A State park for ducks in Dakota would be of little benefit to the birds without similar refuges in Tennessee and Arkansas and on the Gulf of Mexico.

While there is a legal difficulty in the way of uniform national laws to preserve the game, no such difficulty appears to prevent the creation of the national game-preserves. The United States has its post-offices and public buildings in all the States of the Union. Its jurisdiction over the land on which they stand is exclusive. The United States has its park in Wyoming, and it is a source of pride and profit to the State. When the National Government proposes to establish a marine hospital in one of the States, the Governor of the State is asked to have the necessary legislation passed ceding the jurisdiction of his State in the property to the National Government. A short bill is prepared at the suggestion of the Governor, and is promptly passed by the State to be benefited. I introduced such a bill at the request of the Governor in the Assembly of Ohio, and it passed the same day under a suspension of the rules. Bills ceding the State jurisdiction over game-refuges would, no doubt, pass in the same way.

Again, the control of the game-preserves by the

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National Government is best, since for some reason national laws are the more closely observed and readily obeyed. Local liquor laws, for example, are often evaded, but there is not a tavern in the land which has not the license of Uncle Samuel framed and hanging on the wall, to indicate that the tax is paid.

The cost of the proposed game-preserves for birds is inconsiderable. The best places are the wildest, the most inaccessible, the cheapest ; many of them of necessity are largely covered with water—worthless marshes, such as are seen at the mouth of the Mississippi and elsewhere.

The title to many good places for game-refuges is now in the National Government.

The cost of maintenance of such parks would amount to little. The keeper's compensation, as at the clubs, would be in part, at least, the right to farm the arable portions of the preserve. Few keepers would be necessary if it were known that the Secret Service was prepared to report offenders.

The tendency of legislation, national and State, is toward the protection of the game. The Commissioner of Agriculture has recently been given certain powers looking toward its restoration. Restoration, however, to open fields and a vast army of modern guns, would amount to nothing. The remedy is the national game-preserve.

Thirty-one States have game-commissioners, or other officers whose duty it is to preserve and, in some States, propagate the game. There are ten national and forty-three State organizations concerned with

the protection of birds and game, besides the Audubon societies in twenty-nine States, but the destruction still goes on, with improved weapons and appliances, and until the birds have the needed refuge the danger of their total disappearance will remain.

BOOK I
GALLINACEOUS BIRDS

IV

GALLINACEOUS BIRDS

THE game birds of North America which most interest sportsmen are included in the orders *Gallinæ*, birds of the cock or rooster type, the turkeys, grouse, pheasants, and partridges: *Anatidæ*, the swimmers—the geese, ducks and brant; and *Limicolæ*—the shore-birds or waders, the snipes, sandpipers, plovers, etc. First in importance is the order *Gallinæ*. The turkeys, grouse, and partridges are indigenous, but there are no quails in North America. The ducks are by many given first place and duck-shooters insist their sport is first and best. There are a few splendid birds, such as the woodcock, snipe and some of the plovers and sandpipers in the remaining order of shore-birds. In addition to the birds included in these three principal orders, there are the wild pigeons, the cranes and rails, and the reed birds.

The gallinaceous birds are divided by ornithologists into the *Gallinæ* and the *Phasianidæ*. The former term includes the grouse, partridges, and quails; the latter includes the pheasants. The wild turkey is the only true pheasant indigenous to North America. We have recently added two more to our fauna by importation—the Mongolian, or ring-neck,

from China, and the English pheasant, descended from the same stock, which has long been a familiar game bird in England and on the continent of Europe.

Gallinaceous birds are all taken by pursuit. Most of them are shot over dogs, which seek and follow them by means of their scent, and which point them when found. For gallinaceous game the sportsman usually tramps across the fields with thorough-bred setters or pointers ranging ahead, and the observation of these handsome, intelligent companions is, in my judgment, more than half the fun. The tramp across the fields and into the beautiful autumn woods when the frost is in the air, is for me the most desirable form of field sports. For men who do not walk and climb the fences well the ambush is more suitable. Do not think for a moment I would decry the sport. I have shot nearly every duck that flies; have spent days in the blinds both for the sea-ducks and the so-called river-ducks of the interior; I have been out in all kinds of weather, long before daybreak and long after dark (before the laws prohibited night shooting), and have had some splendid shooting at the ducks. I prefer the upland shooting, since I prefer pursuit to ambush and enjoy the company and performance of setters more than of retrievers. I am thoroughly in accord with those who have given to the gallinaceous birds the title: "True game birds."

The grouse, partridge, turkeys, and pheasants are all terrestrial birds and live and nest upon the ground. Turkeys and pheasants roost in the branches of trees, as do their descendants, the

turkeys and chickens of the barn-yards. Although the grouse are referred to as hens and chickens (prairie-hen, spruce-hen, wood-heath-hen, sharp-tailed-chicken, sage-hen, etc.), they are not related to the domestic poultry, which is all descended from the pheasants.

The legs of the turkeys, pheasants, and partridges are naked, but the grouse all have the shank or tarsus covered with feathers; in some varieties even to the toes, as a protection against the snow. Sportsmen will do well to remember this difference, and looking at the feathered legs of the ruffed-grouse they will no longer erroneously call the birds partridges, as many do in New England, or pheasants, as many do in Ohio and throughout the West and South. Such misnomers are bad enough when used by boys beyond the reach of schools. They should never be used by sportsmen.

Bryant says of the ruffed-grouse:

“Partridge they call him by our Northern streams and pheasant by the Delaware.”

Forester says he has a very good name of his own—ruffed-grouse. Gallinaceous birds all lie to the dogs, excepting the turkeys, and they do so at times. They arise from the ground with the loud and startling roar of wings so disconcerting to beginners, and fly in straight or curving lines. The smaller birds are more difficult, and on that account better marks than the grouse of the open country.

All gallinaceous birds are found associated in flocks, termed covies or beviés. Late in the fall the grouse of the open country associate into vast flocks,

termed packs, and it is then next to impossible to approach them. The wood-grouse never pack.

The flesh of all the gallinaceous birds is excellent. They never have the sedgy or fishy taste which some ducks and shore-birds have at times; but the grouse which live in the woods have a bitter taste when eating the spruce buds, and the great sage-grouse of the Western desert has often a decided flavor of the *artemesia* or wild sage. There are in all forty-two species and sub-species found in North America, but many of these are much alike, and from the sportsman's view-point there are but sixteen birds—the wild turkey, three grouse of the open country, the prairie-grouse, the sharp-tailed-grouse, and the sage-grouse; four grouse of the woods and mountains, the ruffed-grouse, Canada-grouse, blue-grouse and ptarmigan; two imported pheasants, the Mongolian and English, and six partridges, the California Valley partridge, the mountain partridge, the scaled partridge, Gambel's partridge, the Massena partridge, and last and best, Bob-white. There are two additional Bob-whites which are found in the Southwest and Mexico, so different in their markings as to be worthy of special notice. These are pictured and described. We first go in pursuit of the turkeys and their relatives, the pheasants; then to the prairies and woods for the grouse and to the fields for the partridges.

The ornithologists now having agreed that there are no quails in North America, I would strongly urge the sportsmen to drop the terms "quail" and "quail-shooting." It being evident that the ruffed-grouse, with his feathered legs, is not a pheasant or

a partridge, let us all pull together and endeavor to see that the bird has his proper name. This is the more important now that we may shoot the true pheasants with their bright plumage, long tails, and naked legs, in the same covers with the woodland-grouse.

V

THE WILD TURKEY

ANYONE who has seen a wild turkey strutting in the sunlight, his bronze feathers gleaming with a metallic lustre and reflecting rays of deep purple, red, green, and blue, will be prepared to agree with the ornithologists that he is a pheasant. The wild turkey, in pattern and markings, is similar to the domesticated bird, but he is far handsomer. Wild turkeys often are very heavy; there are records of birds weighing as much as twenty-five and thirty pounds. The flesh is even finer than that of the tame bird, and without doubt the turkey is the largest and most magnificent game bird in the world and one of the best, if not the best, of food birds. The wild turkey is indigenous to the Western hemisphere alone; the other pheasants are found on the other side of the globe, except the two recently introduced into the United States.

The range of the turkey given in the check list of the American Ornithological Union is:—"United States from Chesapeake Bay to Gulf Coast, and west to the plains, along wooded river valleys, formerly north to Southern Maine, Southern Ontario, and up the Missouri River to North Dakota." Three other varieties of turkey are listed, all with a more limited range: The Mexican turkey, the Florida turkey, and the Rio

Grande turkey. These are, however, so much alike as to be the same bird to a sportsman. In fact it would take a very expert ornithologist, I am satisfied, to distinguish the species where the birds are associated and have no doubt intermarried. The wild turkey is an extinct bird in many of the Northern and Eastern States, and is nowhere found in any numbers save in a few places in the South and Southwest. It is difficult to realize the numbers which existed some years ago. William F. Cody (Buffalo Bill) thus describes the abundance of the turkeys in the West: "While at this camp we had a lively turkey hunt. The trees along the banks of the stream were literally alive with wild turkeys, and after unsaddling the horses, between two and three hundred soldiers surrounded a grove of timber and had a grand turkey round-up, killing four or five hundred of the birds with guns, clubs, and stones. Of course we had turkey in every style after this hunt—roast turkey, boiled turkey, fried turkey, 'turkey on toast' and so on; and we appropriately called this place Camp Turkey." They were probably as abundant in the Indian Territory a few years ago as anywhere. My brother found them fairly abundant in Southern Texas, and there are places in the Gulf States where there are still some turkeys. A few remain in the mountains of Pennsylvania and the Virginias. Like the other game birds, before they became intimate with man they were so tame as to be called stupid. Irving, in his "Tour on the Prairies," so refers to them.

I found a few turkeys when partridge shooting a few years ago in Northwestern Ohio and twice the dogs pointed them. I saw one killed over a point in

Indiana where we expected a woodcock to spring before the dog. Forester says turkeys never lie close enough to be pointed by pointers or setters or to be shot on the wing. This was no doubt true of the few birds remaining in the Eastern States in Forester's day, but I have repeatedly seen the dogs stand turkeys and have several times seen them killed on the wing like partridges. It is most unusual, however. The turkeys that survive are all extremely wild and wary, and the utmost skill is required to stalk them in the forest.

As objects of pursuit I do not much care for them, for the reason that they do not lie well to the dogs. I much prefer the open tramp behind the setters to the covert stalking of any game, when one moves but a half step at a time, with the utmost caution, striving not to make the slightest noise. It may be that I do not care for stalking turkeys, since I am not very good at it, but I am quite sure that were I successful, I would still be found with the dogs, I had an excellent opportunity to learn the turkey shooter's methods, when shooting partridges several seasons with a sportsman devoted to turkey shooting, but we usually parted company when he discovered turkey signs.

Another objection I have to turkey shooting is the long time between shots. To one accustomed to using from fifty to a hundred shells in a day, and the lively work with the prairie grouse, partridges, ducks, or snipe a single shot in a week, or perhaps no shooting at all, seems slow. I must admit that there is much skill displayed in fairly outwitting the turkey of to-day, and the sportsman who kills one has every reason to be

proud of his achievement, and is deserving of the magnificent prize he obtains. There are several methods of capturing turkeys other than stalking them. The most familiar is calling them up to an ambush by means of an imitation of their gobble. Some turkey shooters become very expert at this, and can call the turkeys within a few feet of their guns. The turkey-call is usually made of the wing-bone of the bird. Often the sound is produced by the vibration of a leaf placed against the mouth. The gobble is sounded at intervals when a bird responds, and there is considerable excitement while the wild, wary birds are approaching, but when they step out in an open place a short distance from the gun, the sitting shot is an easy one, and the flying marks present no great difficulty for the second barrel.

Turkeys are often shot with the rifle, the aim being at the head, so as not to destroy the flesh. Such shots are often at long range, and difficult. Before the turkeys were too wild, a dog was of service to tree them, in the same manner dogs are used in some woods to tree the ruffed-grouse, when of course, the bird is shot sitting.

Another method of taking turkeys is to shoot them on moonlight nights when they are roosting in the trees. There are many accounts of this night-shooting in the river bottoms of the Southwest, but when one stops to think of it, it is unsportsmanlike to shoot any bird after it has gone to sleep, and such shooting is now prohibited in many of the States. Shortly after leaving the roost, the turkeys are on the ground busily engaged in feeding, and they are then more easy to find and approach than later in the day.

There are some turkeys in the great preserve of the Nittany Club in Pennsylvania, and here, if anywhere in the North, I believe by proper care the turkeys might be made to show an increase. Turkeys are great wanderers, but the preserve of this club is miles in extent, and if a lot of new birds could be procured and protected, there no doubt would be in a few years enough turkeys for the club members to kill one now and then when in pursuit of other game—possibly over a point. Some tame birds of the bronze variety closely resembling the wild ones might be turned out in the farms preserved by the club, and these would aid in keeping the wild birds on the preserve, and would most likely soon be found associating with them. A wild turkey is a great prize in any bag. His appearance would cause rejoicing at the club table. I heard of a few flocks in the mountains of Western Pennsylvania a year ago, and had an invitation to go in pursuit of them; there were ruffed-grouse in the same woods, a few woodcock, and a few coveys of partridges in the valleys. A friend who shot over the ground, assured me there could be no doubt about the turkeys being there, and I am always glad to learn of the existence of these birds anywhere. Their extermination seemed certain a few years ago. Unless they be preserved on some of the club grounds, I fear they will vanish as completely as did the buffalo and wild passenger pigeon. In the West the turkeys are pursued with greyhounds, but I have never witnessed this sport. The birds are repeatedly driven into the air, each flight being shorter, until finally the dogs overtake one.

Turkey shooting is a most uncertain sport. When

I wrote "In Brush, Sedge, and Stubble," since republished as "The True Game Birds," I referred to my experience in the Ozark Mountains with a local sportsman who knew the woods. I spent several days looking for turkeys but did not see a bird. We were informed that in our absence a boy had killed one with a stone, from a small flock which appeared in the village.

VI

THE PHEASANTS

ALTHOUGH the pheasants were introduced and naturalized in England more than eight hundred years ago, there was not a pheasant in the United States prior to the year 1881, excepting, of course, the wild turkey. It was through the efforts of our Consul-General at Shanghai, Judge Denny, of Oregon, that the birds were first introduced into the United States. His first experiment was a failure, but the next year he was successful with the birds shipped to his brother, Mr. John Denny, of Albany, Oregon. Many of the birds survived and were liberated on his farm, near Patterson's Butte. Being protected for a number of years by legislation, they became abundant and the pheasant is now a common game bird on the Pacific Coast.

Many sportsmen became interested in this bird and it was soon introduced into many of the Eastern States, and protected everywhere for a period of years. A number of pheasant farms and hatcheries were started, and they found it difficult to supply the demand for birds and eggs. In some of the States the propagation of these birds was undertaken by the State game commissioners. The clubs have liberated pheasants on their preserves, and many individuals throughout

America are interested in raising them to stock their private shooting grounds.

In many of the States the close period is now about to expire, and the pheasant will be shot with the other game birds, but I doubt much if they will anywhere survive in the Eastern States, save on the preserves. The birds are large and noticeable on account of their bright plumage, and although swift flyers they are not very difficult marks; and in localities where there are several shooters in each field the moment the season opens, and often before, with dogs of all sorts, I do not see how the pheasants can possibly escape.

It would seem that the climate of our country, at least that of most of the States, is even more favorable to these beautiful fowls of the Orient, than that of England. Since the birds have been successfully propagated there for centuries (and although the shooting has been excessive in England and on the Continent of Europe) there is each year an abundance of birds in the preserves, I see no reason why they should not do well everywhere in America where there are clubs or preserves. To-day I notice in a morning paper this telegram from Paris: "Count Boni de Castellane entertained King Carlos, of Portugal, at a shooting party yesterday, at the Chateau Marais, near St. Cheron. The bag includes four hundred and sixty-one pheasants." Royalty everywhere is very fond of pheasants, and of all shooting, for that matter, and the foregoing is not an extraordinary bag, but large enough to show how successfully the birds have been introduced and propagated in other countries.

The shooting clubs of the Eastern States have been

successful with the pheasants, and some of them already have very good shooting. I am informed that at one of the clubs on Long Island the shooting is now as good or better than that to be had on most English estates of similar size. This club each year releases about two thousand birds in the covers, which have been bred on neighboring farms. In Ohio, the pheasants are propagated by the State, and distributed each year. Many of the Ohio clubs have also liberated pheasants on their preserves, and they are now abundant in many places, more especially on the grounds of the duck clubs which control the shooting on the marshes south of Lake Erie. The heavy sedge seems to offer a safe refuge for the birds, and no doubt protects them from hawks and other enemies. The shooting is not yet open in Ohio, but last year, when sketching in the marshes, I saw many pheasants, which (as I came upon them in fields or in the paths through the sedge) flew away with a loud clucking like the prairie-grouse, presenting about the same, or little more difficult marks.

Although only about twenty-five birds were liberated on the grounds of the Ottawa Club (Sandusky) and there has been no effort made toward propagation, they have increased rapidly, and there are now thousands of birds on their preserve.

In England and the older countries the shooting of pheasants is largely done at the *battue*, and a recent writer for *Harper's Weekly* (I don't know who, since the article was unsigned) well says: "It used to be the fashion to sneer at the *battue*; men who had killed big game in the forest laughed at the picture of good King

Edward sitting in an arm-chair potting half-tame pheasants, but there is no kind of shooting, I think, that requires surer marksmanship than the *battue* as it is practised in the national preserves of Rambouillet. It is not a wild sport, but it is a sport in which skill is everything. Its sporting equation would be: 'The *battue* is to stalking grizzlies as billiards is to football.' I have shot prairie chickens over a good red setter in the stubble of Wisconsin fields, and have had my day in a boat on the reeds for wild ducks; now, believe me, in neither instance does the game have so fair a chance for his life as he does in a *battue*, when he is flagged out of the bush or copse and driven down upon your gun. Far less destructive than shooting over dogs, it is therefore more sportsmanly. This is especially the case when pheasants are in play." The writer describes a *battue* at which M. Loubet, the President of France, was the principal shooter.

In America pheasants are usually shot over dogs. We are good imitators, however. Something like the fox-hunting of England is seen on Long Island and elsewhere, and I predict it will not be long before the pheasants are shot at the *battues* on October Mountain and on the other vast country estates now owned by American men who can afford them. A member of one park association recently informed me that on that preserve the pheasants are held in captivity until a member of the club notifies the game-keeper that he is coming. Thereupon the few birds which each member is allowed to shoot are placed out in a field and he is informed exactly where and proceeds to shoot them. I said nothing when this information was imparted;

but my informant added: "It does seem a little funny, does it not?" I replied that it did!

The domestic hens are found to be valuable assistants in the raising of young pheasants. The eggs laid by the pheasants are removed and placed under the hens in little boxes in a house, where many hens may be seen at once sitting on as many as twenty eggs each. The little chicks with their foster-mothers are put out in coops where the chicks can run about in the grass. Pheasants are polygamous and one cock is usually penned with a number of hens. If more than one cock is placed in an inclosure they will spend much of their time in fighting, since they are very pugnacious. Wallace Evans, of the game propagating farm near Chicago, says that if the cocks are permitted to occupy the same inclosure during the breeding season they will fight almost constantly, to the utter neglect of their conjugal duties. The hens commence laying about April 15th, the date depending somewhat upon the weather; and each hen lays from fifty to seventy-five eggs in a season if properly fed and cared for, thus furnishing the breeder with several settings of eggs every spring. The eggs are gathered daily and set under the hens sometimes as late as July. The period of incubation is about twenty-one days. The young birds are fed on boiled custard for a few days. Mr. Evans advises the removal of the foster-mother and her brood when the poults are some three or four days old, and that their food be changed slightly; the custard being fed once daily and one meal being of finely chopped hard-boiled eggs. As the poults begin to show strength a small quantity of the smaller grains—such as cracked wheat, millet, etc., should be

mixed with the food, the quantity of grain being increased gradually until the birds can be fed entirely with the grain. Mr. Evans says, further, that it is good policy to work the poults off the soft food as soon as possible. The breeder at the outset will get full instructions from the dealer who owns the pheasantry, and following these he should have no trouble in stocking his farm or preserve.

In setting out the young birds the foster-mother and coop should be moved to the place selected and the young fed there daily, until they become accustomed to the place. This will prevent their wandering away. It is well to know that pheasants do not inhabit large forests or open plains. They insist upon cover, but feed in the fields. In this they much resemble our partridge, Bob-white, and the pheasants as a rule will do well on the same ground. In the early morning and again toward evening the pheasants leave the cover to scratch and feed in the fields. When alarmed, like the partridges, they fly to the cover, but sometimes trust to their legs and travel at a gait to exasperate a setter trying to road and point them.

A successful breeder, De Guise, writing for *Forest and Stream*, says: "They will at once make their home in and never leave any wooded hollow, where cedars and other evergreen trees abound, through whose depths runs a never-failing stream, and which lies amid fields of grass and grain. Such is an ideal harborage for them, where their every want will be supplied. . . . In trying to set up a stock of pheasants no efforts will be fully repaid, no success will be perfect, unless a determined and continued onslaught is made

on their foes, furred and feathered. The brook so necessary for their comfort is the lurking place of the mink. The grateful shade of the trees harbors hawks and owls, and many a brood will be left motherless, and many a hen will be bereft of her young, unless all such depredators be ruthlessly exterminated."

The male bird of the true Mongolian pheasants is very handsome. The head is of an iridescent green, reflecting blue and purple, and about the neck is the broad white band which suggested the technical name *Torquatus*, ring-neck. The English pheasant has lost this white ring about its neck, and in some specimens it is represented by a few white feathers. Both birds have reddish-chestnut breasts, reflecting purple, and have long tails barred with black. The English birds are regarded as better than the true Mongolians for American covers, but the Mongolians are handsomer birds, on account of the broad white collar about the neck. The flesh of both birds is excellent, nearly as white as the domestic chicken, and far more palatable. I have eaten them both at the same meal, and doubt if I could detect the difference, if unaware which bird was served. The English bird is said to be somewhat heavier, the Mongolian seemed to me to possibly have a more gamy flavor.

There are many other beautiful pheasants which may some day be added to our fauna, but the Mongolian and the English pheasants are those which are now interesting to sportsmen.

In shooting pheasants, beat the sides of the fields early in the day and at evening, and the dog will soon discover the trail of the birds when they have run out

into the fields to feed, and follow them to a point, provided they do not run away from him. Mr. Miller, of Eugene, Oregon, says the pheasant lies better to the dog than the blue-grouse or prairie-chicken, but my information would lead me to believe that the prairie-grouse is the better bird before dogs, prior, of course, to the time when it packs and does not lie for them at all. The long tail, when this pheasant presents a cross shot, will tend to make the sportsman shoot behind his bird and so miss him, or bring down only the feathers from the tail. Shoot well ahead of crossing birds and, as I have before remarked, do not forget that there is little danger of your missing by shooting too far in advance of the bird.

VII

THE NORTH AMERICAN GROUSE

SEVERAL years ago I suggested that the American grouse might properly be divided into two classes—(1) the grouse of the open country and (2) the grouse of the woods and mountains. The classification is not of course ornithological, but sportsmanlike, since the grouse of the open country all lie better to the dogs than the grouse of the woods, and are distinguished from the wood-grouse in other ways, important to sportsmen, as we shall observe later. Many grouse are listed in the check list, which are so much like others as to be distinguished with difficulty. When the pattern and markings are the same, and the habits of the species and sub-species are identical, and the only difference is a slight variation of the general color, the birds may be, and are, regarded as the same by sportsmen. The sub-species of ruffed-grouse—for example, the Canadian ruffed-grouse, the gray ruffed-grouse, and the Oregon or Sabines ruffed-grouse—are the same in pattern and markings and have the same habits, and the sportsman is right in regarding them as identical. The great ornithologist, Coues, says: "They are ruffed-grouse, each and all of them, and we may ignore the varieties, unless we desire to be very precise." Any attempt to portray these sub-species in black and white fails. They all appear exactly alike,

for the reason that the differences are in color. Were the pictures made in color there would necessarily be many of them, since the sub-species intergrade and all the specimens in a collection might be different.

Discarding the sub-species, there remain three grouse of the open country: the prairie-grouse, the sharp-tailed grouse, and the sage-grouse; and four grouse of the woods and mountains: the ruffed-grouse, the Canada or Spruce-grouse, the blue- or dusky-grouse, and the ptarmigan, which turns white in winter.

The grouse of the open country all lie well to the dog until late in the year, and seldom fly to the trees. The grouse of the woods and mountains are all given to flying to the trees, and are often shot from the branches. The flesh of the wood-grouse is usually light; that of the grouse of the open country is darker.

In some of the States the season for shooting the grouse of the open country commences in August. This is a month too early, since many of the birds have then an immature flight and go fluttering out of the grass or stubble with a speed not much better than that of the rails, presenting marks which in no way test the skill of the sportsman. It is, too, excessively hot on the prairies in August and so dry and dusty that the dogs have great difficulty in finding and pointing the game and often suffer from thirst. On the high plains of the Northwest the temperature is better, and the many small lakes and ponds furnish water for the dogs. The opening day for grouse in Scotland is August 12th, and this date would do for North Dakota, Montana, and Manitoba. I have had many good days in Dakota and Montana in the latter

part of August, when the birds were fairly strong on the wing, but for many reasons I am of the opinion that September 1st should be the opening day for grouse shooting in America. This is the best date when all the States are considered, and uniformity is desirable. And since the birds have rapidly diminished, it is well to have a short season.

Ten years ago I had no hesitation in predicting the extermination of the grouse of the prairies. They had already disappeared from Ohio and Kentucky, and when I went to shoot in Indiana, Illinois, and Kansas, I observed that the race was rapidly diminishing, and that the birds were shot as early as July, sold openly in the markets, and served at hotels and restaurants. Market gunners vied with sportsmen in the making of outrageous bags, and the birds were shot for sport, when they could not be transported or used on account of the heat. Stories were common of wagon-loads of game thrown away. The sharp-tailed grouse fared somewhat better for a time, on account of the Indians, who were the best game preservers in the world, using what they needed only, and preventing their white brothers from taking any.

The legislation shortening the open season, and prohibiting the sale and shipment of the grouse, has done much, and with the creation of preserves in the grouse States, the birds will no doubt be saved for all time and cared for and handled as grouse are in Scotland, where immense numbers are killed each year, but enough are left to restock the preserves.

In Scotland the game preserves are of great value. "Shoots" are advertised for the season at a rental often

of thousands of dollars. The editor of the *British Sportsman* said, last fall, that the annual sporting rental of Inverness-shire is close upon \$100,000. Adding the rentals received in Perthshire, Ross-shire, Argyle-shire, and Aberdeenshire, and \$140,000 for the deer shooting, it is estimated that the shooting privileges yield an annual rental of over \$2,200,000. "These figures," says the editor, "give the value of shootings when properly looked after, and it must be borne in mind that all this money is derived from land which in the days of our grandfathers produced practically nothing."

I look to see somewhat similar conditions in the grouse States of America before many years. The grouse are especially adapted to some of the city sportsmen, since the shooting in America is usually done from a spring-wagon with cushioned seats, and the shots are comparatively easy, being made over dogs. Already there are places in this country where the entire taxes on farms are paid by city sportsmen, and I predict it will not be long before the "shoots," to use the English expression, bring much better prices. The distance from the large cities to the shooting grounds is no longer a serious problem. A day or two in a luxurious private car, or in the library of an express train, will put one down upon the finest grouse-fields in the world. In Scotland the grouse shooting is largely done from ambush, the birds being driven across a line of guns. The birds are under full headway as they pass or cross over, and the shots are more difficult (as they are at driven pheasants) than those presented when shooting over dogs. I know a number of American sportsmen who go to shoot grouse in

Scotland, and they are very fond of the drives. There is no place in the world where driving could be better done than on the prairies and plains of the Western States.

We will no doubt shoot at driven grouse before many years, since the "preserve" idea is moving Westward like the course of empire.

The wood-grouse are all great wanderers afoot, and require large forests for their preservation. The cutting down of the trees has been sufficient to exterminate them in many places. They are benefited by the establishment of the preserves, and get along with less woodland when not too much persecuted.

All of the grouse are sufficiently important to be considered separately, when we shall have something to say as to the natural history of each, and the methods of pursuing them.

VIII

THE PRAIRIE-GROUSE

THE common-grouse, known as the prairie-hen or chicken, and the sharp-tailed grouse, are similar birds but easily distinguished. The former inhabits the prairies and the latter the plains. They are associated where the prairies and the so-called great plains of the Northwest blend. The prairie bird was formerly found from the Eastern States to the plains, and was abundant in Indiana, Ohio, and Kentucky, but few, if any, remain in Ohio and the bird is nowhere as abundant as it was a few years ago. It is probably more abundant to-day in Kansas, Nebraska, Texas, Iowa, and parts of Illinois than elsewhere, and is extending its range toward the Northwest. The prairie-grouse is a reddish-brown bird with dark brown stripes running crosswise. The sharp-tailed grouse is much lighter in color, being almost white underneath and the markings are lengthwise. The sharp-tailed grouse is easily distinguished by the sharp tail and white spots on the wings.

The prairie-grouse live only in the open country, preferring prairies of vast extent. As they are cultivated the grouse remain and feed in the stubbles and corn, and the vast corn-fields in the prairie States have done much toward their preservation. When it was the fashion everywhere to shoot these birds in the sum-

mer, even as early as July, the growing corn afforded a refuge often miles in extent where it was intensely hot and where the shooting was difficult, especially so where the broad green leaves of the corn grew higher than the head. In Illinois and Kansas I have seen many a fine covey of grouse at the first shot on the stubble fly directly to the corn and sailing for a long distance over it settle where it was difficult to mark them and impossible to shoot them. Toward evening the birds return to the stubble to feed, but at the first shot they fly back to the corn.

The prairie-grouse builds its nest on the ground and there are usually from twelve to fifteen eggs. The cocks in the spring make a loud booming noise, and strut and fight often at certain places called by the country folks scratching places.

Many nests are destroyed by prairie fires and many by spring floods. Provided it be not too late the hen will usually nest again. Many are of the opinion that the grouse raise two broods in a year; I doubt not they do sometimes, and usually if the first brood is destroyed. Early in the season the young birds are not strong on the wing and are very easy marks. They arise from the ground with the loud whirring noise made by all gallinaceous birds, and familiar to everyone who has stumbled upon a flock of partridges or a ruffed-grouse in the woods. When full grown the flight is strong and well sustained, the whirring continues for a time and then the birds sail on extended wings, soon to whirr and sail again alternately until they have flown a great distance. When the grouse are young and tame, and have not been shot at, they

do not fly far, often not much beyond the limit of a large field. They are then the easiest kind of marks, and the whole flock is often killed by two guns in very short order. They lie well to the dogs, which find them easily, provided it be not too dry, but as the season advances they are more difficult to approach, and an October grouse is a swift and difficult mark, rising nearly out of range.

As soon as the weather becomes cold many coveys associate, forming vast flocks, which are termed packs. It is then next to impossible to approach them within shooting range. They may be seen sitting on fences and on hay-stacks, and are even visible sitting about on the ground with heads up, and always alert and ready to fly a mile or more when the sportsman approaches. It is useless to try and get within range of them. A few birds might possibly be killed at long range with a rifle, but no sportsman fond of shooting over setters would thus destroy the birds. Sometimes on warm, sunny days late in the fall, if a pack of grouse be moved early in the day while feeding, they will fly out on the prairie and as the sun becomes strong in the middle of the day they resume their feeding, and if well scattered may lie to the dog.

In September the sportsman looks for the grouse early in the day and again late in the afternoon. The birds start quite early from the long and heavy grasses or from the standing corn, going afoot to the stubbles to feed. In the middle of the day the dogs will not find them. Late in the season if there is any shooting it will be in the middle of the day.

The distances on the prairie are so great that the

sportsmen usually drive in a wagon, alighting to shoot, or ride about shooting, often without dismounting. I have tried both methods many times and am very fond of the saddle. When the horse, or Indian pony, is used to the gun and will stand anywhere without hitching and come when called, as a well-trained pony will do, this method is perhaps the best. A drive with a companion or two in a light spring-wagon, with the opportunity of praising the conduct of the dogs and discussing the shots at the last covey, is the usual way. The dogs range far and wide, and when they come to a point the wagon is driven rapidly within a very short distance of them, the sportsmen take their positions behind the dogs, slipping the shells in the guns as they approach, and when all are ready the owner of the dogs steps forward a pace or two, his companion moves forward with him, there is a loud whirring of wings, a rapid firing of the guns and if the aim be true, four large brown birds tumble dead into the stubble at the report of the four barrels.

The driver shades his eyes with his hand and from his seat in the wagon observes the flight of the survivors as they go whirring and sailing away like so many two-pound meadow-larks, and marks them by a tall weed when they settle on the prairie.

The dog having retrieved the dead, they are placed in the wagon and a short drive brings the shooters to the scattered birds. Soon the setters or pointers locate them by the strong scent. One dog draws up quickly to a point and the other backs him, or perchance they both point at once at separate birds. These arise as the sportsmen move forward, present-



GROUSE SHOOTING ON THE PRAIRIE

ing single shots and often doubles, since two or three birds will often get up together. Others arise at the report of the guns, and the shooting is rapid. Here, as in all field shooting, observe the rule as to silence. Do not exclaim about the merits or demerits of a shot, especially when the gun has just been fired, for you will most likely move a pair of birds just at your feet, which no doubt will present the easiest chance for a double, and be talked about for the rest of the day, as the fish are which get away. Do not shout at the dog or give him any orders if it can be avoided. Replace the shells in the gun immediately after firing, and if you care to do so and shoot fairly well you may bag every bird in the covey then and there. 1

Since the shooting is always in the open it is not difficult to mark and follow the birds, except in standing corn, and it is not unusual for the entire covey to be brought to bag before the sportsmen leave it. Now that the birds are few in number sensible sportsmen do not care to exterminate them, and on the preserves it is quite necessary to spare some of them if there is to be any shooting another year. The market gunner, always the most destructive, finding it more and more difficult to dispose of the game, has in most places ceased to shoot, and those who used to trap large numbers of the birds, using large traps which often caught a covey at a setting, have ceased to trap them for the same reason.

In many of the States there are laws limiting the size of the bag to be made in a day to from ten to twenty-five birds and the limit may be easily reached by shooting a few birds from each covey. So soon as

the birds are everywhere preserved, as they no doubt will be, the bag limit may well be increased, since personal interest will so regulate the killing as to save enough to restock the grounds for another year. Upon a preserve the natural enemies of the grouse are destroyed; suitable nesting places are not burned over and the birds are fed and cared for in the winter. Under such conditions large bags may again be made in a day without danger of a permanent diminution of the game.

When I first went to shoot in Kansas the birds were abundant. We drove out but a short distance from a little village in the central part of the State, and the dogs soon found and pointed a covey. There was more unbroken ground than cultivated fields, and the birds when flushed were scattered in the prairie grass, and we had little difficulty in making large bags.

The wide, brown prairies, level or gently undulated, stretched away in every direction until they met the sky. The small houses, more often cabins or dugouts, were scattered at long intervals. There were few fences, and no sign-boards forbidding the shooting. The drive in the fresh, cool air of the morning was followed by rapid shooting, and in the heat of the day we rested often for several hours and again cast off the dogs in the afternoon and enjoyed the sport until sundown. There was no restraint of any kind; no law to limit the bag; no irate farmer ordered us off. The sportsman who goes to shoot the prairie-grouse to-day will do well to get permission in advance to shoot over the farms and look up the law of the State he proposes to shoot in.

Going out one season with some army officers from Fort Leavenworth as the guest of a railway official, in a private car, the engineer whistled when the grouse flushed before his engine and stopped while we went in pursuit of the birds. There were but one or two trains daily and the car seldom had to seek a siding to avoid them. We had Gordon setters, English setters and pointers, young and old, and they found and pointed the birds equally well. It was late in August and the pointers suffered less from the heat and were on that account the more serviceable dogs. Use No. 7 or 8 shot early in the season ; 5 or 6 later.

THE HEATH-HEN

The earlier ornithologists regarded the heath-hen as identical with the pinnated-grouse or prairie-chicken of the Western prairies. It is closely allied to the latter bird and so much like it in pattern and color markings as to be easily mistaken for it. The present habits of the two birds are, however, different, since the heath-hen is found in the woods, its favorite haunt being in scrub-oaks, where it feeds largely on acorns and berries, going out, as the ruffed-grouse goes, to the open fields for grain. The term heath-hen seems inappropriate now that the bird is an arboreal species, but it may indicate that it was found in the open years ago, when it was distributed over Massachusetts, Connecticut, Long Island, New Jersey, and Pennsylvania. It is now almost exterminated, and all that remain are in a limited area of about forty square miles on the island of Martha's Vineyard,

Mass. Here they are strictly protected, and Brewster says they are in no present danger of extermination. According to present calculations there are not more than two or three hundred birds remaining.

From this source the clubs of Massachusetts and Long Island might possibly restock their club grounds, if the game officers of Massachusetts would permit it, and the experiment is well worth trying, since this grouse would prove a valuable addition to any game preserve. The experiment was once tried of stocking the preserve of the Robin's Island Club, on the island of that name in Peconic Bay, with prairie-grouse from the West, but the birds all flew away, probably to Connecticut, since one was reported to have been seen there.

Brewster says the heath-hen weighs on an average one pound less than the prairie-grouse. Samuels, in his "Northern and Eastern Birds" (published in 1883), gives the pinnated grouse, or prairie-hen, as a former inhabitant of Massachusetts and other Eastern States, and says it is not now to be found in this section, except on Martha's Vineyard.

A friend of the writer shot one of these birds some years ago on Martha's Vineyard, brought it to New York and had it mounted by a taxidermist. Upon learning of the penalty for his offence, however, he was not much inclined to discuss the occurrence.

IX

THE SHARP-TAILED GROUSE

FOR many reasons I regard the sharp-tail as the best American grouse. Its flight is similar to that of the prairie-grouse, if anything more swift and well sustained, its gray plumage, effectively marked with white and black, is more attractive, the pointed tail gives it a trim appearance, its flesh is equal to the best, and it lies well to the dogs. The country where it dwells is better suited to the use of dogs than the prairie, by reason of the cooler temperature and the abundance of water in the many lakes and ponds.

The range of the sharp-tailed grouse and the two sub-species (which so closely resemble the species as to be of no importance to sportsmen) is from Northern Illinois and Wisconsin to the central portions of Alaska. The prairie sharp-tailed grouse is found as far south as New Mexico. The Columbian sharp-tail is found on both sides of the Rocky Mountains, eastward to Montana, Dakota, and Wyoming, southward to Utah, Northern Nevada, and Northeastern California. These birds are most abundant in the Dakotas, Montana, on the plains of Eastern Oregon and Washington, and in the British possessions from Manitoba west. When I first went to shoot in Dakota—there was but one Dakota then—I found the sharp-tailed grouse very abundant,

but during my visit of several weeks' duration I shot only one or two of the pinnated or prairie-grouse. It has been well settled, however, that the common prairie-hen follows civilization to the Northwest, and these birds are increasing in Dakota. Many of them now find their way to the same bag with the sharp-tails, and since variety is pleasing, they have made their common range the most desirable grouse land in America. I can imagine no better grouse preserves than those which will soon occupy all the country from Minnesota and the valley of the Red River of the North to Eastern Oregon and Washington. The vast number of small lakes and ponds and the little streams and sloughs overgrown with reeds and rushes and wild rice, are full of the best ducks that fly, both the sea-ducks, such as the canvas-backs and red-heads, and the shoal-water mallards, teal, wood-duck, and all the river-ducks or dabblers. Many remain in North Dakota to build their nests, and when chicken-shooting I have often seen a pond full of young mallards and teal, and once made a double shot, killing a duck and a chicken, a large mallard and a swift-flying sharp-tail. The sharp-tailed grouse is very similar in its habits to the prairie-grouse. It struts and scratches and fights in the spring; many performing at a time on the scratching places, and as the birds bow and slip past each other with their tails up they present an amusing appearance, which has been compared to the dancing of a minuet.

I have observed the great sage-grouse performing in the same way, and the cocks of both species often get to fighting, as dancers have been known to do at

other balls, and the cause of the fight is always the same—rivalry.

The nest of the sharp-tail is built on the ground, and contains from twelve to fifteen or even more eggs. The coyote and the many prairie falcons are their chief natural enemies, and these are so abundant that it seems remarkable how the sharp-tails manage to survive. The hawks, though not very wild, usually managed to keep just out of range of our guns. I often observed many of them sitting on the tops of the telegraph poles, and many were always in sight sailing overhead. They did not seem to be afraid of a team, and a friend often dropped out of our wagon, and walked behind it until within easy range of a hawk on a pole, and as he stepped out to shoot, it was amusing to see the alarmed bird jump into the air only to fall dead to his unerring aim. A few steel-traps placed on the telegraph poles and in other likely places, would yield a rich harvest of hawks, and prove a great benefit to both the chickens and the ducks. At night a pack of coyotes often came quite near our camp and howled, in their dismal warbling fashion, their desire for our birds which were hung up in the trees.

The sharp-tail weighs about two pounds; sometimes as much as two and one-half. It feeds on grain, seeds, berries, and insects, and its flesh is always in fine condition for the table, and the young birds are tender and delicious. I prefer all grouse broiled quickly before a fire, but they are very good cooked in any way domestic chickens are, and in the winter they may be stewed or parboiled to advantage like domestic fowls of mature age. Although the sharp-tails, like all other

gallinaceous birds, are protectively marked and rely upon concealment, they are seen more often than the prairie grouse on the ground, or sitting on the wheat shocks, and on frosty mornings sitting on the branches of the trees which grow about the streams. They stand high on their legs and cock up their pointed tails like a wren, and present a singular appearance when the long neck is outstretched, as it generally is when on the lookout. In the slang of the day, they might be termed "rubber-necks." Upon approaching the birds, however, when they are thus visible, they disappear as if by magic. Those sitting on the shocks fly away or drop into the stubble; the "rubber-necks" are shortened, the bodies fade out of sight. Although the stubble or grass may be short and thin and you walk directly to the place where the birds were seen a moment before and look carefully about, not a feather will be visible. As you are about to step on a bird, however, he bursts forth with a roar of wings, and flies rapidly, usually clucking as do the prairie-grouse and sage-cocks (tuck-a-tuck-tuck-tuck, repeated rapidly) as if scolding you for the disturbance. Bestir yourself rapidly if you would tumble the gray-cock into the stubble. In an instant he will be out of range.

Once, shooting with an Indian agent, we had scattered a flock of sharp-tails, and as I approached the spot where I had marked one, a bird went out and I killed it, supposing it was the one marked down. The agent called to me from the wagon that my bird was a few feet farther on, and going to the place indicated, I carefully looked about, without being able to discover it. I was about to give it up, when I almost

stepped on the bird, which arose with a loud whirr, but I was fortunate enough to bag it. The concealment was most remarkable since at no place was the grass much longer than the bird's legs. The above incident was but one of many which proved that the bird, although more willing to expose itself to view, was as good at concealment as the partridge, ruffed-grouse, or woodcock. Roosevelt refers to passing through a flock of sharp-tails without seeing a bird on the ground, and glancing back, to see all the long necks outstretched in the grass, intently watching him, I have never seen the prairie-grouse exhibit any such curiosity, and it is unusual in the shooting season to see those birds at all until they are on the wing,

One day at Fort Totten, the Indian agent came to invite me to shoot with him. He had a good pair of horses hitched to a light spring wagon and one of his Indian policemen (Mr. Ironlightning, I cannot write his Sioux name) sat beside him. An orange and white setter was in the wagon, a big, strong dog I had shot over often before. We drove out a short distance, and, releasing the dog, he went off like a greyhound on the wide, gray plain. Soon he went more slowly, and it was evident from his actions that he was approaching birds. We drove forward as he settled to a point, and the Indian held the reins while we went in and flushed a covey of fifteen or twenty birds. The shots were easy, and at the report of the four barrels in one, two—three, four order, feathers white and gray hung in the air, and four plump birds fell dead in the grass. The survivors did not fly far, and slipping shells into the guns, we moved forward afoot, and soon were busy with the

scattered birds. There were but few misses and it was not long before we had shot them all, excepting a few which got away while the guns were empty.

The taciturn Indian sat in the wagon and marked the birds, but the few that were left were widely scattered and we proceeded to cast off the dog and search for a new covey. An officer from the garrison with an Irish setter joined us, and on one occasion when the dogs pointed a covey the birds arose, as they often do, but a few at a time, in rapid succession, and reloading quickly we killed them all before retrieving a bird. Although the distances were great, the dogs were used to them and were fast and untiring, and we found one covey after another and had excellent sport with them all. A few ducks were shot as they flew from the ponds, an occasional snipe went out with harsh squeak and zig-zag flight from the wet grass about the ponds, and found a place in the bag. Such was the shooting of the sharp-tails a few years ago, and such it is to-day in the Dakotas, Montana, and from Manitoba to Washington and Oregon. There are some restraints, however. A gun license is usually required, costing as much as \$40 in Wyoming, and where the sport is best there is a legal limit to the bag—ten birds in a day in Oregon, twenty-five in Dakota.

A limit of ten birds per day makes a short day's shooting when the birds are abundant. It may be necessary to save the game when the shooting is fine and gunners are numerous, but, as I have observed before, this limit may well be increased when the birds are well cared for on the game preserve, their natural enemies destroyed and food supplied them in the winter.

A recent writer for *Field and Stream* says he has shot into packs (coveys no doubt are meant) of both birds (prairie and sharp-tailed grouse) in the same field. "Some years ago," he adds, "I killed an old mother-bird with six young. The mother was a genuine prairie-hen; the young were mixed. Three of them favored the father bird (sharp-tail) even to the tail with mixed coloration, breasts barred with V-shaped markings; the others had tails like the mother, mixed coloration with V-shaped marks on sides of whitish breast." Several varieties of pheasants are known to interbreed on the preserves in England, and it may be that the grouse will do the same on our grouse preserves when the two birds are closely associated.

The sharp-tailed grouse is probably extinct in Northern Illinois. A close season now in force in Wisconsin may save the birds in that State, but there is no bird whose salvation is more dependent upon the preserve, in my opinion, than the sharp-tailed grouse, and in fact all of the grouse of the open country.

The ornithologist Coues, the best authority upon our Western birds, says: "The pinnated-grouse prefers to glean over cultivated fields, while the wilder sharp-tailed clings to his native heath. The railway will take the former along and warn the latter away."

In an earlier book I expressed the opinion at variance with this high authority that the true reason for the disappearance of the sharp-tails from the eastern part of their range was to be found in the shot-gun. I have observed the sharp-tails where farms were being opened and found they were very fond of the

wheat-stubble. Roosevelt describes killing one hundred and five sharp-tails one day while shooting with his brother, over inferior dogs, in the stubbles to the eastward of his ranch on the Little Missouri. I have seen no reason to change my opinion that the sharp-tailed grouse are not driven away by the railway, but on the contrary, thrive in a wheat-farming country; and if sufficiently protected they will increase and multiply so as to afford the finest grouse-shooting in America for many years to come. One season I took a ride of about a thousand miles through the country inhabited by sharp-tails. Starting at Fort Buford, North Dakota, we ascended the Yellowstone Valley from the mouth of the river to Fort Keogh, Montana, and went thence up the valley of the Rose-bud; crossed the Panther Mountains to the Tongue River and proceeded to the Big Horn Mountains; thence northward along the Big Horn and Little Big Horn to the Yellowstone, and crossing that river we returned again to Forts Keogh and Buford. The sharp-tails had not then been shot at. It was just before the surrender of Sitting Bull, and we travelled over country which was well preserved by the Indians. The sharp-tailed grouse were very abundant in many of the valleys and out on the plains, but no more so, I am satisfied, than they were some years later on the stubble fields of Dakota before they were much persecuted. Sharp-tails do not like small farms, but neither do the prairie-grouse, and for the same reason—in a closely settled country there are too many guns. It is no wonder when the shooting began in July and the birds brought good prices in the Chicago

markets, when there was no bag limit, no license, no game warden or game law, that the birds were "warned" away from Northern Illinois. They might readily be restored, in my opinion, with the prairie-hen to many of the farms of Illinois; but the experiment would not be worth while unless the birds were closely protected for a period of years and thereafter carefully guarded on preserves of large size where the shooting would necessarily be limited to the increase of the year. There are many vast preserves owned by Chicago men where the ducks most congregate. A preserve with the sharp-tails restored might well be laid out adjoining the marshes frequented by the ducks. On such a preserve the partridges, woodcock, and ruffed-grouse would need but little more than protection in the oak groves against over-shooting to increase and multiply, and pheasants might be added to advantage. Before it is too late I hope to see the sharp-tails well established on many preserves where the race will no longer be in yearly danger of extermination.

I have referred at other times to the picturesque features of the country where the sharp-tailed grouse dwell. The many little lakes and ponds reflecting the image of the sky suggested to the Indian the poetical word Minnesota, the land of sky-tinted waters; Minnewaukon, the lake of the Great Spirit, a large, salt lake second in size to that in Utah, lies well out on the range. The villages of the Mandans, Sioux, and Crows, and their inhabitants in bright costumes, feathered and beaded, were picturesque in the extreme. Much of the sharp-tail country is a land of wild roses and sun-

flowers, and small wild fruits, where the buffalo, elk, deer, and antelope were but little molested when I first began to shoot. Such was the land when Custer fell, and for a few years thereafter. The railroad now runs over it. Towns have taken the places of the Indian tepees. The buffaloes are exterminated, the antelope are nearly gone, and the sharp-tails must go to the game preserve or vanish from the earth.

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X

THE SAGE-COCK—COCK OF THE PLAINS

MANY years ago I rode out from Fort Bridger with Professor Marsh and his assistants escorted by a company of troops from the garrison. The expedition was against the dead of long ago, whose fossil remains lay buried in the Terre Mauvais, or Bad Lands of the Green River country, in what is now the States of Utah and Wyoming. I had asked to accompany the expedition and do part of the work, not on account of an interest in paleontological research, but from a desire to visit an unknown land in comfort and safety and to shoot at the living.

We rode away from the garrison over a vast plain overgrown with the artemesia or wild sage. Far away to the south were the bad lands or buttes, strangely fashioned by erosion, and, beyond, the snow-capped peaks of the Uintah Mountains. I carried a double gun across the saddle, and we had not gone far before I dropped behind the others, riding somewhat to the left of their trail, in the hope that I might get a shot at something. Suddenly a large bird, nearly as big as a turkey, arose from my horse's feet, and with a tremendous roar of wings flew off across the plain, loudly clucking as he went. Not stopping to consider if my horse would stand the firing I pitched the gun to my shoulder and had the satisfaction of seeing the bird

fall dead. When I picked him up I found that I had a very heavy bird, weighing at least six or seven pounds. Its general color was gray, with a large black patch below. It had a long tail of stiff feathers and tufts of white on the shoulders. It was three times as large as any grouse I had ever seen on the prairies, but I suspected the truth—it was the sage-cock, or cock of the plains, the largest grouse in the world save the capercaillie of Europe.

Hanging my prize to the saddle I remounted and rode about in the sage hoping to have another shot, but the bird was solitary, or I failed to move his companion. Shortly afterward a large animal bounded out of the sage and made off with tremendous leaps. An antelope, thought I, as I made a snap shot at it, but when I picked it up the extremely long ears made it evident that I had bagged the jack, or jackass rabbit, the animal which had been recently exploited by Mark Twain in "Roughing It." When I arrived at our camp my identification of both species was verified, but neither the cook nor the plainsmen who acted as our guides seemed to regard my performance as heroic as could be desired.

I soon learned that in the presence of larger game, such as the elk and mule-deer, neither the sage-cock nor the jack-rabbit were regarded as worthy marks or as desirable food.

There has been much controversy as to the merits of the sage-cock on the table, and I had occasion to review the authorities, as the lawyers say, on this point in a former work. All shades of opinion will be there found expressed, in terms varying from "quinine



SHOOTING SAGE GROUSE IN THE DESERT

brute" to "delicious," but the truth of the matter is that these birds, like others, often receive a flavor from their food, and when the wild sage is their exclusive diet they have a more or less bitter taste. When, however, the birds are young and have been feeding on grasshoppers, their flesh is as good as that of the sharp-tails or prairie-grouse.

Before we made our second camp I shot a number of these grouse, and selecting a young and tender bird, plucked him and broiled him on a stick, and I found the flesh, as Lieutenant-Colonel Dodge describes it—"juicy, tender, and delicate as a spring-chicken, besides having the richest game flavor." I am surprised that the ornithologists are almost to a man arrayed against this bird as an edible dish.

The sage-cock was made known to the world by Lewis and Clark in their report of their expedition, and they named it the cock of the plains. It inhabits the sage plains from Western Dakota, Colorado, Nebraska, and Kansas to the Pacific States, and south to about thirty-five degrees. It never wanders away from the sage. The birds do not fly to the trees, but I have found them in the shade of the cottonwoods along the banks of streams, only, however, where the wild sage extended up close to the trees. They are often found far out on the sage-plains many miles from water, and the presence of ponds or streams does not seem necessary to their existence. Their flight is the same as that of the other grouse, alternately flapping and sailing, but the noise produced by the wings is multiplied and has been compared to a burst of thunder. The cocks measure two and one-half feet or more, and the

hens are somewhat smaller. It is remarkable that such large birds can conceal themselves as they do, and they often refuse to take wing until fairly kicked out of the bush. They lie well to the dogs, but it is important to take water in the wagon for these animals, as it often is on the prairies, to prevent their suffering from thirst.

My shooting at these birds was mostly done from the saddle while on the march. When we flushed a covey of birds I took a shot at them, and marking those that flew away to the particular bush where they settled, rode at once to the spot and sometimes dismounted to shoot at the scattered birds. Upon several occasions I went out with a friend especially to shoot them, riding here and there (we had no dog) until the horse flushed a covey, and following them so long as we could make them take wing. Birds often escaped by hiding in the sage and refusing to fly. The most likely places seemed to be depressions where the water evidently flowed in wet seasons and little knolls adjacent, but we stumbled upon the birds almost anywhere in the sage, and often made very good bags. It was next to impossible to miss one, since the shots were always in the open and the marks large. The birds required hard hitting, however, to bring them down, and I would not advise the use of shot smaller than number 5 or 6. A wounded bird is difficult to recover without a dog where the sage grows thickly, and I always tried to kill the birds outright. The side shots, or those at quartering birds, are more likely to be fatal than those at birds going straight away, since the shot then penetrates the lighter feathers beneath the wings.

The horses used in the West are generally trained to stand without hitching when the reins are thrown over their heads, and I soon taught my horse to follow me about when I walked up to the scattered birds. Upon one occasion he became alarmed at a party of Indians which rode near, and went off at a gallop, not stopping until he reached the camp, some miles away. The Indians were friendly Shoshones, and seemed amused at my losing my horse. I had a long tramp back to the camp, and found a few of the big grouse a burden.

The most desirable places to shoot sage-grouse are in the vicinity of the mountains. The stream necessary for a camp will be found full of trout, and an expedition may be made into the forest for the blue-grouse, or for deer. The sage-brush makes a good fire. I have more recently shot sage-grouse in many places, usually only a few now and then to add variety to the camp table. Their habits are everywhere the same. They are too easy as marks to be very desirable game. In addition to the jack-rabbits, I have seen many of the smaller hares in the haunts of the sage-cock; a band of antelope was not unusual some years ago, but these graceful animals are seldom seen to-day.

XI

THE RUFFED-GROUSE

THE ruffed-grouse is the bird, as I have observed, so often called partridge in New England, and pheasant in the West and South. It is one of the most beautiful of the birds having protective markings; and here I may say, for the benefit of the non-ornithological reader, that the birds protectively marked are the birds whose plumage harmonizes with their surroundings, so as to render them invisible to their enemies, and these birds all trust much to concealment. Protectively marked game birds are usually of a brown or gray color, variously marked with yellowish-tan and black and white.

The ruffed-grouse is a very handsome bird of trim outline, alert and game-like in appearance, brown and gray, but effectively marked with velvety black and white, which contrast well with brown and gray tones. The broad band across the tail and the long silken feathers which form the ruff are glossy black. On the back are arrow-head or heart-shaped spots of light gray. The legs are covered with feathers (the distinguishing mark of the grouse) of brownish white. The ruffed-grouse has long been called the "king of game birds." When the ruffed-grouse struts and drums, he elevates his tail (which is spread out like a fan) and the black ruff about his neck, and as he pran-

ces about on his favorite drumming-log, stump, or stone, he makes a loud noise which resembles somewhat the roll of a drum. It begins with several low thumps, and these are slow and measured, but they increase rapidly in force and frequency until the deep noise is produced which can be heard for a mile in the woods. The sound, which is ventriloquial in character, was supposed formerly to be vocal and many so describe it. Enough has been written on the subject to fill a book of large size. An abstract of the lore on this subject will be found in my former work, "The True Game Birds." Many ornithologists follow Audubon in describing the drumming noise as being made with the wings striking the body, but it seems from later observations that the wings of the bird smite nothing but the air—"not even his own proud breast." This grouse was given its technical name *bonasa*, since the noise was supposed to be vocal and to resemble the bellowing of the bull.

Ruffed-grouse are distributed everywhere in the woods from New England and Eastern Canada to Oregon and south to Georgia, Mississippi, and Arkansas. They prefer forests of large extent, since they are great wanderers afoot, and are more often found in the hills and mountains in the East, but they were also very abundant in the oak forests of Northern Indiana and Illinois, and are to-day abundant in many places in Michigan, Minnesota, in the Rocky Mountain region, and the forests of Oregon. The flesh of this grouse is white and delicious. As an object of pursuit he is now far more difficult than the prairie-grouse or sharp-tailed-grouse. To write another equa-

tion, which will be understood by fishermen at least, the ruffed-grouse is to the prairie-hen as the wily black bass to a school of yellow perch. The ruffed-grouse is often found solitary or in a group of two or three during the shooting season. He will often slip away from the dog and rise out of range or lie very close until the sportsman has passed, and then burst forth with a roar of wings in the evident hope of scaring him to death.

This grouse builds its nest on the ground, and there are usually ten or twelve eggs. By September 1st the young birds are strong on the wing. I have urged September 15th as the opening day of the season for these birds. In most of the States the season opens much later. The objection to an early date is that men going out for grouse are tempted to shoot at all game, and the partridges are not old enough to shoot in September. Sportsmen, however, are to-day more inclined to regard the game laws, and the market gunners should everywhere be kept out of the woods.

Before the ruffed-grouse have been much pursued they are quite tame, and often fly to the branches of trees quite within range. There are few places to-day where the grouse are so uneducated. In some remote places in Idaho or other parts of the Rocky Mountain region and in unfrequented places in the Maine woods or elsewhere where shooters do not go, they are no doubt as tame as they once were everywhere.

When the grouse are not too wild they are hunted with a small dog, which drives them to the branches of the trees and attracts their attention, while the gunner (the reader will observe I do not say sportsman) ap-

proaches and shoots them down. I would not have any friendship for a man who would shoot one of these magnificent birds sitting and gazing at him from the branch of a tree.

Forester says that "the constantly repeated tale that the ruffed-grouse when it alights in trees in companies, will allow the whole flock to be shot down one by one without stirring, provided the shooter takes the precaution of shooting the one which sits the lowest on the tree first, is as fabulous as it is ridiculous." I have been informed, however, by reliable persons that this not only can be, but has been, done repeatedly. The Canada-grouse have been shot in the same way, as we shall see later. I have seen the blue- or dusky-grouse equally tame in the Rocky Mountains, but, of course, never tried to kill all on a tree. I have repeatedly found the ruffed-grouse in cultivated fields where they had gone in search of food, but only in such fields as were adjacent to the woods, into which they went on whirring wings at the first alarm.

Ruffed-grouse are always found in wild, romantic, and picturesque places. They are especially fond of craggy mountain sides and deep and impenetrable swamps. A small woodland will not hold them long unless it be one of a series of woods with intervening fields. Early in the season all the birds of a brood will be found together, but I believe there are never more than one brood associated. In this they differ from the grouse of the open country, which pack, as we have observed, into large flocks as the season advances.

There is much diversity as to the field merits of this

bird. He does not lie so well to the dog as the common partridge, Bob-white, or as the grouse of the open country. It is unusual to make a large bag of ruffed-grouse; a half dozen birds in a day is a very good bag, and will represent many more shots than the same number of partridges or prairie-grouse, since the birds fly very rapidly and the shots are usually in heavy cover.

The birds lie better to the dogs when there are many fallen logs and much underbrush to impede their running, and in close thickets, especially thickets with grass in them. I have usually found them lying close in swampy places where the ground was soft and overgrown with tufts of grass and covered with fallen logs. When the birds are discovered in such places the sport is indeed magnificent. But when the birds are few in number and are found on vast mountain sides where there is no such cover, and the ground is quite open beneath the trees, they will often run from the dogs in a most exasperating way and fly from one mountain side to another; much time is consumed in following them, to say nothing of the arduous work, and the dogs are often useless.

I have more often shot ruffed-grouse when in pursuit of other game. Following the dogs to the woods when partridge shooting, I have found them standing ruffed-grouse, and as soon as the larger birds were discovered, I have given them my immediate attention and followed them so long as there was any chance for success. When I have gone out especially to shoot these birds I have usually not found them in sufficient numbers to make the shooting as lively as I like to see



A DIFFICULT SHOT AT A RUFFED GROUSE

it. There is a chance for the exercise of much skill and intelligence on the part of the man and dog, and they who know best the particular localities in the vast forests frequented by the birds, and who can go to them most quickly and quietly, who in a word, can find and approach the game the best, will make the largest bags. I have known of a bag of twenty or more birds in a day, but as I have observed, a smaller bag is the rule. Forester records a bag of seven birds made by two guns in four days of resolute fagging with two brace of setters, as good, he says, as any in the country, and announced he never would go again in pursuit of these birds. For my part I am especially fond of a ramble in the forest, no matter what may be the result.

Much pleasure is derived from seeing the dogs repeatedly point birds in the open; there is fair sport in shooting at the prairie-grouse late in September, when they fly swiftly, and when fifty, one hundred, or even more shots are often fired in a day. But the ramble in the forest has its magic charm not to be found in the prairie. There is "a pleasure in the pathless woods." The magnificent colors of the autumn trees are overhung with the blue veil of the Indian summer. The breeze sighing in the branches does not mar the restful quiet. The solemnity is pleasing, quieting, and causes one to rejoice that he is far from the noisy rattle of the town. So still it is that the nut which the squirrel drops sounds loudly on the leaf; the twig snapped under foot crackles noisily. The murmur and splashing of the tiny brook, the rustling of the autumn leaves are sounds familiar but

ever charming. The lunch beside the cool spring, with mossy logs or rocks for chairs and table, is eaten with a mountain hunter's appetite, and the few birds in the bag are handled and admired more than once. Meanwhile the good setters who have worked hard are dozing on the grassy mat where the sunlight falls; the pipes are lighted and the stories of the shots most difficult are told again. "Just as I pushed the hemlock branch aside with one foot over log—Whir! Whir! Whir!" etc. The sportsman knows. The novice will find the lesson pleasing.

The ruffed-grouse are fond of wild grapes and also of whortleberries, and in a general way I may say here that the knowledge of what birds are feeding upon is always valuable to the sportsman. I have often found the ruffed-grouse in the vicinity of the wild grape-vines. Early in the season they may be found on the tops of low mountains feeding in the whortleberry patches. Later in the year they move down the mountains, and in November the birds will not be so high on the hills as earlier. There is an uncertainty about the sport which lends an additional zest since we prize most that which is difficult of attainment.

Men who are especially fond of the sport carefully study the habits of the birds, and are, of course, more successful than those who shoot them only in connection with other game.

It is a good rule when a bird flushes wild or is missed to follow him up immediately. If he does not lie well to the dog the second time, keep after him, noting his line of flight and after several flushes he

may decide to rely upon concealment and will possibly present a very fair shot.

When the dog fails to find the bird on or near the ground where he has been marked, look carefully in the trees, going over them a branch at a time. The grouse will sit so closely and so still that he may be easily overlooked. The birds are partial to woodland roads, and when the road is not much travelled it will pay to run the dogs over it and the adjoining thickets.

The ruffed-grouse have never been domesticated and, of course, cannot be handled in a preserve as the pheasants are, but when they are not too much shot at and when their natural enemies, furred and feathered, are destroyed they will increase in number, and I see no reason when food is supplied to them, why they should not do very well in the game preserve. I recently saw a number of these birds on a preserve on Long Island where the woodlands, small in extent, are mere thickets of scrub-oak and pine, and I was convinced there were more birds there now than many years ago when the grounds were open to every gunner who came to shoot, and every boy who came to trap, and when the markets were prepared to dispose of the birds at good prices. The prohibition of the sale of these birds has done much. Like the other birds they were rapidly being exterminated.

The ruffed-grouse are found in the Rocky Mountains associated with the blue-grouse, and the Canada, or spruce-grouse (the Western variety called Franklin grouse). Where these three magnificent birds come together there should be another National Park.

XII

THE DUSKY- OR BLUE-GROUSE

THE ruffed-grouse has a rival in beauty in the blue- or dusky-grouse of the West. This bird is much larger and will weigh as much as three and one-half pounds. Here as elsewhere among the game birds the variety-makers have been at work, and have given us two sub-species, so much alike, however, that I must frankly say, although I may have shot them all, I could not know the difference between them. As a matter of fact the differences are slight and may be regarded by the sportsman as purely local or climatic.

The blue-grouse are *the* grouse of the Rocky Mountains. Both spruce-grouse and ruffed-grouse are found associated with them in places, but from Arizona and New Mexico to the British possessions one may find the magnificent blue-grouse, and often find it abundant. They are also found on the Coast Range, and thence eastward to the Rocky Mountains.

The general color of this bird is a slate-blue. Its throat is white and it is marked above and on the wings with black. The general bluish-gray color, often quite dark, and its size render it unmistakable. The only bird at all like it is the Canada-grouse, often called spruce- or black-grouse. The latter bird is smaller than the ruffed-grouse, however, while the blue-grouse is nearly twice as large.

Much that has been said about the king of game birds applies to the dusky- or blue-grouse. I once said he was the "King of the West." In the spring he hoots and struts like a turkey-cock. In the early autumn he lies fairly well to the dogs, fully as well as the ruffed-grouse. His flesh is white, or nearly so, and quite equal to that of his Eastern rival.

After observing the blue-grouse some years ago I could easily imagine how tame the ruffed-grouse were before forming man's acquaintance, and I did not wonder at the local name of "fool-hen," which is applied to the Western birds, and which has found its way into the legislation of Montana, where it is now unlawful to kill more than twenty "fool-hens" in a day.

When I first went to the Rocky Mountains there were no restraints of any kind upon the shooting, except at one point where there was an uncertainty as to what the Utes were doing. Blue-grouse flew up to the lowest branches of the trees and stood looking at me in the friendliest kind of way, and I of course had no desire to shoot at such confiding marks. A few were shot with the rifle (shooting off the head) now and then to add variety to our fare. I sometimes took a shot at them on the wing in the woodland glades. The big-game hunters often had serious and sinister objections to the use of the gun, since it disturbed the larger game. We always had an abundance of meat—elk tenderloins, elk hearts, venison of both the black- and the white-tail deer, and wild-fowl and trout of large size, so that little attention was paid to the blue-grouse.

The fool-hens are fool-hens no longer in many places.

They have been rapidly taught what a man, a dog, and a gun mean, and have become "educated birds," as the partridge shooters say, as the towns have sprung into existence in the neighborhood of their haunts. One who has read Irving's account of the wild turkeys standing on the branches and gazing in stupid astonishment at the soldiers who shot them down, will be prepared to believe the tales of the former tameness of the blue-grouse, but it is to-day in many places as wild as the wildest ruffed-grouse, and if such traits are hereditary, as they no doubt are, it will remain one of the most difficult of all the gallinaceous birds which find a place in the sportsman's bag.

The surroundings of the great blue-grouse are all appropriate. This magnificent bird has a magnificent background. As I have observed, he is nearly twice as large as his ruffed cousin of the East. His mountains are more than twice as high. His trees and rocks and crags are many times as big. His brooks are larger, and flow with louder noise; their falls are more majestic. The fish, too—the mountain trout—are large and fine, far bigger than those of the Eastern brooks.

There are many trees in the woods of California, Oregon, and other States where the blue grouse lives, besides the so-called big trees, *Gigantea Sequoia*, which grow to a height of several hundred feet. The ground is littered with cones of tremendous size. The blue-grouse when moved from the ground can fly straight up to the branch of a tree beyond the range of a gun. The rifle is more often used to shoot them in many places, and in fact in all new countries it is the only weapon.

In the late fall, about the middle of November, the

blue-grouse disappear, and it is unusual to see a single specimen in places where they have been abundant until the following spring. This disappearance is as mysterious as the disappearance of the woodcock in the East. The bears which roam the blue-grouse woods also disappear in the winter, it is well known, and are not seen again until spring. Their whereabouts are known in a general way, but there is the greatest difference of opinion as to what becomes of the grouse. Some insist that they are migratory and go south. Many believe that they retire to the tops of the highest evergreens and pass the cold season as the bears do, in a state of torpor. As the birds subsist well on the leaves of the coniferæ, and can always obtain sufficient water from the snow and raindrops on the leaves to supply their necessities, Dr. Suckley was of the opinion that the latter is the correct explanation, or that if migratory they are only partially so. The torpor is supposed to be but partial by those who advance the torpor theory.

There are places in Oregon where the blue-grouse, the pheasants, the ruffed-grouse, and the sharp-tailed grouse may be found close enough together to be shot in a single day from one camp. But the daily bag to-day must be a small one. The limit there is ten birds. This is the law for upland game. The wild-fowl limit is fifty ducks.

The gun for shooting blue-grouse is the 12-bore. The shot should be somewhat larger than that used on ruffed-grouse. I prefer No. 6 or 5 in the order named. No. 7 will do very well early in the season, when the birds are not wild and when most of them are young.

XIII

THE CANADA-GROUSE, SPRUCE-GROUSE, OR BLACK-GROUSE

THE Canada-grouse and the Rocky Mountain species, known as the Franklin's grouse, are the same from the sportsman's point of view. They are the smallest of all the grouse excepting the ptarmigan, and, like the latter, they are seldom taken by sportsmen in the United States.

The Canada-grouse is a bird of the Northern woods and inhabits the spruce forests of Maine, the Northern States, and the Canadian provinces, north to the Arctic region as far as the woods extend. The general color of the spruce-grouse is black. It is effectively marked below with white, and is a very handsome bird. It is often called the black-grouse on account of its color, but this name is more often applied to a larger foreign bird. The female is lighter and brown in color.

The Canada-grouse is more often seen by sportsmen who are in pursuit of big game, such as the moose, elk, and deer. They are not much molested and are quite tame, too tame to be interesting in most places. John Burroughs, describing a trip into Canada, says: "We came upon two or three broods of spruce-grouse in the road, so tame that one could have knocked them over with poles." The same writer found them

common in the Adirondacks, and once shot eight in less than an hour, the eighth one, which was an old male, was killed with smooth pebble stones, his shot having given out.

I have referred to the shooting of the entire flock of ruffed-grouse from a tree. There is a recent story in *Field and Stream* of the shooting in Nova Scotia of an entire flock of spruce-grouse which perched upon the nearest limbs of the hemlocks and never "stirred" until the covey was exterminated. "I am ashamed," says the writer, "when I think how soon that whole covey lay in a heap, tossed together in the path. But it was the sad penalty that the spruce-partridge always pays for its stupidity and too confiding disposition when lumbermen or hunters are in need of meat." I have referred to these birds being taken with a looped string on the end of a fishing-pole. The reader will find this method of pursuit described and pictured in *Scribner's Monthly* for August, 1877.

The Rocky Mountain species differs but little, the chief difference is in the tail markings, and the reader who cares for such differences may find an illustration of the two tails in "North American Birds," by Baird Brewer and Ridgway. I do not care enough for such matters to try and remember the slight differences in the tail markings. They are both small black-grouse, beautifully marked with bars and dots of white below. They are equally tame and confiding and entitled to share with the blue-grouse the title of "fool-hen." As the larger game becomes scarce in the Western mountains they will receive more of the sportsman's attention, no doubt, and will soon become as wild as

the ruffed-grouse of New England, when they may be regarded as desirable game.

Audubon and Forester differ as to the table qualities of this bird. Audubon regards the flesh as edible only when the birds have fed on berries, and says in winter, when it feeds on the leaves of trees and other plants, the flesh is quite bitter and disagreeable. Forester says he has eaten it only in winter, and while he admits the almost resinous aromatic bitterness he pronounces it delicious in the extreme. The controversy on this point is similar to that over the sage-cock and other birds whose flesh is affected to a marked degree by their food. No doubt, late in the winter, when he has subsisted solely on spruce buds, the flesh of this grouse will prove unpleasant and unpalatable. When the spruce is but a part of his diet, the flavor, I can well imagine, is not objectionable, since I can stand a decided trace of the sage in the flesh of the sage-grouse, provided always he be young and tender.

XIV

THE PTARMIGAN

THE ptarmigan is the smallest of all the grouse and is only found in the Arctic regions and high up in our Western mountains. It is fond of the snow, and, like the Northern hare and some other birds and animals, it turns white in winter for protection. The variety makers have been especially industrious with this race and have given us a long line of sub-species, but they are all small birds, gray and brown in summer and pure white in winter, excepting the tail, which contains black feathers in most of the varieties. The white-tailed ptarmigan is the bird seen on the alpine summits of the mountains of Western North America, from Mexico to British America. This bird was some years ago fairly abundant in the mountains of Colorado, but it is now rare in most places. A friend who had some mines well up in the mountains told me that the birds came down to their camps in winter and that his miners killed many of them. They were not very wild and not difficult marks. Many no doubt were shot sitting, and it is no wonder that as the number of shot-guns increased, these handsome birds diminished.

Although I went several times to the mountain tops in the Rocky Mountains to look for these birds, I never was fortunate enough to see one alive.

In Alaska they are quite abundant, and the Indians

capture many of them with snares. They are there found on the level plains and are shot like prairie-grouse. Lieutenant McConnell, of the revenue cutter *Bear*, wrote an excellent account of this sport for a magazine now out of print; this is quoted at length in "True Game Birds." The shooting was done in company with some Esquimaux, who "pointed and retrieved," the lieutenant says, "in a way that would have put many a good bird-dog to shame."

The ptarmigan is almost invisible in winter when it sits motionless on the snow; but the great snowy owl is said to find many of them, and the foxes are here, as elsewhere, the natural enemies of the grouse.

The ptarmigans pack as soon as the young are full grown, and Mr. Tripp records seeing flocks containing one hundred or more in the mountains of Colorado. Their flight is well sustained and rapid, and they are able to fly great distances, but, like the prairie-grouse, when not much pressed they do not fly far. Mr. Tripp says that when seldom molested they are very tame, but when persistently pursued they become wild and leave the range of a shot-gun with surprising quickness. After several large flocks had been hunted for three or four days they grew so shy that it was difficult to approach within gunshot, although at first they had been comparatively tame. Nimble of foot, the ptarmigan frequently prefers to run away on the approach of danger rather than take wing, running over the rocks and leaping from point to point with great agility, stopping every little while to look at the object of alarm. "I sometimes chased them," Mr. Tripp says, "half a mile or more over the rocky, craggy ridges

of the main range without being able to get within gunshot, or force them to take wing."

The ptarmigan known as Welch's ptarmigan inhabits Newfoundland. It is described as a dark-grayish bird, with a bluish tinge on the plumage, which has been likened to the color of the sooty-grouse (the blue-grouse), while all the feathers are dotted with blackish white.

Like all the others it is white in winter. At the time the check list of the American Ornithological Union was published there were listed no fewer than eight species and sub-species of the ptarmigan. Elliot in his recent book mentions two more, and "still they come" no doubt, or will come, as the various Aleutian islands are explored by ornithologists who delight in making new varieties. They might all belong to one flock, however, in winter, except the one called the white-tail; and the summer dress changes so rapidly in all the species when they begin to turn white, that the various piebald specimens of a single species might well delight the ornithologist looking always for the new.

It does not require the imagination of a Jules Verne to picture a game preserve occupying an Alaskan island, where the great Northern bears, both grizzly and polar, may be shot the same day with the small white grouse by the sportsman who has come from San Francisco on his yacht.

XV

THE PARTRIDGES

PARTRIDGES are distinguished from the grouse by their size being smaller and by their naked legs ; they are larger than the European quails and distinguished from the smaller birds in many ways. The foreign quails are migratory, fly in large flocks and go long distances, even crossing the Mediterranean. The American partridges are none of them migratory; although they have been known to move short distances, usually for food or water, they are found more often year after year in the same field, or at least on the same farm. The European quail are smaller than the partridges. There is some difference in the shape of the wings, the size and strength of the bill and the number of feathers in and the length of the tails. The birds now listed in the check list among the partridges, the Bob-whites, have always been partridges in Virginia and the South, but in the North and West they are more often spoken of as quail.

As I recently said in writing for a magazine, we live truly in an iconoclastic age when that idol of the gourmand "Quail on Toast" is shattered.

The discussion as to name, however, which begun long before "Field Sports" was written, has at last been settled. The Ornithological Union has made the list complete of all American birds. There are no

quails in the list. I have at another place suggested that we drop the term quail and "quail shooting."

The partridge most familiar to sportsmen is the Bob-white. This is the bird most widely distributed, being found from New England to the Gulf and westward to the great plains, following civilization to the Northwest as far as it can stand the winters, and thriving in California and many Western States where it has been introduced.

Two partridges live in California and the Pacific Coast region, known as the California valley partridge and the mountain partridge. The former is smaller than Bob-white, the latter larger. The other partridges are all Southwestern birds, have limited ranges, and are found from the Rio Grande country in Texas to Lower California and Mexico. The scaled partridge is most abundant in Texas and New Mexico, the Gambels partridge in New Mexico and Arizona. The Massena is nowhere very abundant, but is found in Mexico and the adjacent States and Territories, east as far as San Antonio, Texas. The range of all the birds will be found stated with accuracy in the appendix.

The Florida Bob-white and the Texas Bob-white are the same as the Northern bird, save as to slight difference of color. They are, too, a little smaller than the Northern birds. The differences, however, I regard as purely local or climatic.

All the Western and Southwestern birds are noted for their beautiful plumage and plumes or crests. Bob-white, of course, is brown and gray.

Bob-white is the best of all the partridges both in the field and on the table.

The variety makers have given us about as many Bob-whites as ptarmigans: Pueblo Bob-white, black breasted Bob-white, Godman's Bob-white, Coyolco's Bob-white, black-headed Bob-white, Salvin's Bob-white, Guatemala Bob-white, and Yucatan Bob-white. As their names indicate they have the same whistle, they are no doubt one and the same bird, the slight differences being climatic or geographical.

XVI

BOB-WHITE

BOB-WHITE is a trim and handsome partridge, intermediate in size between the quails and partridges of the old world. He is conceded to be the best game bird in America. In my opinion he has not his equal in the world. He lies well to the dog, as I have said before, tests to the utmost the sportsman's skill in the open, and in cover seldom takes to the trees, is of convenient size for the game pocket, and is excellent for the table. He is certainly a better game bird than any of the grouse, since over dogs they are too easy marks, or fly too often to the trees. He is better than the imported pheasants or the partridges of Europe, since he lies better to the dogs; and birds shot over dogs are superior as game to those shot from ambush—the ducks and shore-birds or waders.

After a long controversy the ornithologists are agreed that he is a partridge, *not* a quail, and have given him the name Bob-white; by which he was known to country folk long before.

During the mating and nesting season he whistles the notes loud and clear which are supposed to resemble the words "ah Bob-white," and so he may be said to have whistled for himself a name.

Early in the spring this partridge seeks a mate. The nest is built upon the ground, usually well concealed

in grass or weeds. There are from twelve to fifteen eggs, sometimes more, and while the hen is sitting on the nest, the male bird from near-by fence or stump whistles his familiar notes. The young are precocious in the extreme, and run and pick at food as soon as they leave the shell. They have wonderful ability to hide, and when danger comes, the hen sounds a warning note, and the little birds disappear as if by magic. Often the old bird flutters away as if badly injured and unable to fly, and so attempts to lead her enemy away.

Some say this partridge will rear two broods in a year. I believe they sometimes do. Certain it is that if the first young birds are destroyed, the hen will nest again. Such nests are often found late in the summer. A nest was discovered last year in New Jersey containing fourteen eggs, which were hatched as late as the middle of October, and every sportsman has seen very small birds as late as the beginning of that month.

The food of this partridge consists largely of seeds, berries, and grain. It is distinctly a bird of the farm, and thrives best in civilization. In the summer it becomes tame, but as the fall approaches is quite wild again, and it seems impossible to domesticate it. Bobwhite is said to be partially migratory. I had always doubted this until a few years ago when I found a number of coveys just before the season opened, which were gone before that date. They were quite near my house, and the birds had not been shot at, so I was convinced when good dogs failed to find them that they at least were gone. In dry seasons, or when the food gives out, partridges are compelled to move, since they

must have food and water. In Southern Illinois one very dry season I found no birds in the fields where they should have been, and later found many coveys about a ditch which had water standing in it.

At night the covey takes a short flight to break the scent. The birds sit closely together in a concentric huddle, with their heads out, so that they have a lookout in every direction and it is difficult to approach without alarming them. The chalk-like droppings in a circle indicate the presence of the birds in a field, and often show that they are in the habit of roosting in the same field every night. Work the dogs thoroughly when you see such signs. Be sure the covey is not far away.

In winter the partridges again become quite tame, and often come into the barn-yards in search of food. It pays well to feed them at such time, especially if the winter is quite severe. At the clubs, food is liberally supplied, and often patches of grain are planted and left standing especially for the birds. Farmers and sportsmen often feed the birds.

When a heavy snow falls the partridges sit quite still until they are buried in it, and then if a crust is frozen on the top they all are imprisoned and surely perish. A few corn-shocks left standing and a few brush-heaps, where the food is scattered, will save the lives of many birds.

In some severe winters partridges are almost exterminated. It is then necessary to pass a law prohibiting shooting for a term of years, when the birds will again be found abundant.

In Northwestern Ohio some years ago after such a

storm, it turned very cold and a thick crust of ice was formed on top of the deep snow. Many coveys on one of my favorite shooting grounds were imprisoned and the birds perished. Where I had shot scores of birds in a day one year, the next autumn I found but one small covey of eight or ten birds in two days of industrious tramping behind good dogs. The Legislature was appealed to, and a law providing a close season of several years' duration was passed, and to the credit of the sportsmen of the State it was obeyed, with the result that the birds were again abundant at the end of the close time and have been fairly abundant in Ohio ever since.

After a severe snow, but a few years ago, which prevented the partridges from obtaining food, the Loudonville Gun Club (in Ohio) requested the farmers to clear a protected spot on their farms and agreed to scatter the necessary food on such places, whether they were permitted to hunt on the premises or not, and Mr. Pond, the editor of the *Sportsman's Review*, well says, the example is one which should be followed by all gun clubs in localities where such conditions may exist.

The partridge is distributed from New England and Canada to the Gulf of Mexico, and west to South Dakota, Kansas, and Texas. As civilization has moved westward this bird has gone with it, and is now found over a larger area in the Western States than formerly. It has been introduced into California and the Salt Lake valley, and should do well in these places. These partridges are most abundant to-day in the Southern States from North Carolina and Georgia

to Texas, and in Southern Illinois, parts of Missouri, and Kansas. They were extremely abundant in Oklahoma, but recent reports state that there has been entirely too much shooting, with the usual result.

The report of Governor Brodie to the Secretary of the Interior contains a statement that the efforts to introduce Bob-whites and imported pheasants into Arizona have so far not been very successful.

This partridge is by far the best bird for the upland game preserve. As a rule it does not wander far, and when food is supplied it will survive the severest winter. It is not difficult to stock a preserve, provided care is used in putting down the birds. Some clubs, when the shooting is excessive, restock the grounds every year. The birds should be put out early in the spring and food scattered about the place of their release.

I once purchased a crate of ten birds which I saw in the Cincinnati market and gave them to a friend who had a large country place. Early in the year the crate was placed not far from the house, and after the birds had become accustomed to their surroundings we removed one of the slats at evening and in the morning the birds came out and were soon feeding in the grass. Before long they separated, and one pair nested on the lawn, quite near the house, another in the garden and the others not far away. The natural enemies of the partridge, the foxes, hawks and domestic cats and dogs, should be kept down, of course, and if too many birds are not shot in the autumn they will increase from year to year.

The modern farm implements, the mowers and reap-

ers, do much damage to the nesting quail, and when it is desired to preserve them it is best to leave a stump or two in the fields surrounded by long grass and briars, and these will save many birds. The game-keeper on a preserve should, of course, know where each bird has its nest, and if in a field of grass or grain, the farm implements may be driven around it, not too close to disturb the mother bird. It is not difficult to find the nests, since the cock-bird whistles daily from a place quite near it. Partridges are especially fond of buckwheat, and a small area of this grain planted and left standing for their use will attract them to the place. An old tree-top or open brush-heap, left in a field, will afford shelter in the winter and a nesting-place besides. But a few years ago no attention was paid to these matters. They are not mentioned in our books, but with the growth of game-preserving many individuals and clubs are giving their attention to the proper propagation of the game and its protection in the winter. Hedges and the old rail fences are far better for the partridges than the modern wire fences, since they afford cover and protection on every side of the field. Tall grasses, weeds, and briars allowed to grow about the fences furnish not only protection to the birds from their enemies the hawks, but afford them food, both seeds and berries. An apple-tree here and there, when the apples are allowed to remain upon the ground, proves an additional attraction to the birds, and there are many places now where the birds are worth more than the fruit.

Many partridges were formerly taken by traps and nets. I have destroyed many of these when shooting

in the fields. So long as the open sale of birds was legal the temptation to so take them remained. The use of traps and the sale of game is now prohibited in most of the States, and many farmers now rent the shooting on the farms, and are prepared to aid the execution of the law.

Partridges, as sportsmen know, prefer the open fields—stubble and corn in the order named. They are seldom seen far within large woods. When alarmed they fly at once to the woods or thickets, there to remain until the danger passes. Small woods and thickets with much underbrush and briars are better than large woodland tracts and furnish all the cover which the birds require. Small streams and ponds and springs furnish water for the birds and seem necessary for their existence. The birds are partial to a railway passing through a farm and there find gravel, sand, and often grain dropped from a passing freight-train.

The open season for partridge shooting a few years ago was much too long. Beginning as early as October, or even September in some States, it lasted until March or April, long after the birds had sought their mates. Coveys are more easily seen and potted on the snow. A shorter season is now provided in many States. A uniform law providing for an open season beginning November 1st and ending with the year would be exactly right.

The gun for partridge shooting should be a light 12 or 16 gauge, the barrels open or but slightly choked, since the shots are at short range. A shooting-coat with many pockets, leggins, and stout shoes are best. Set-

ters and pointers of field-trial parentage, but trained to hunt before the gun and not to range too far, will furnish better shooting than the wider ranging dogs. They should go fast, but not too far, and should cover all the ground.

A few years ago there was no limit to the bag. The birds were killed by hundreds in a day. The legal limit now is often small. In one State (Vermont) it is but five birds of any kind in a day. A limit of two or three dozen birds a day would, in my opinion, be just right. On many days this bag cannot be made, and when a good day comes, I see no reason why the limit should not be at least two dozen birds. On preserves the limit is often fixed by a club rule, which should, of course, limit the killing sufficiently to save enough birds to restock the grounds. On the English stubbles and Scottish moors, the bags are often large, but care is taken that enough remain.

In the morning the partridges start out afoot to feed upon the fields. When the day is fine they move early, and the sportsman may also make an early start and take the field as soon as the sun is up. On cold and stormy days the birds will not move so early, and when it rains and the wind is high they may not move at all. As a general rule, however, I would advise an earlier start than that proposed by Forester. Cast off the dogs, a pair, not more, in the stubble or field of corn, and see that they look well to the sides of the field before leaving it. Experienced dogs will seek the likely places first, the little knolls or depressions where the cover seems to be the best. Give good dogs few orders, or better none at all, and they will soon find

and point the covey. Approaching without haste, walk in and flush the birds. By no means shoot them on the ground, and refuse at once to shoot with one who would suggest it. As the birds arise with noisy wings, select one far out on your own side and having killed or missed it, shoot again. Do not, like Mr. Tupman, shoot vaguely at the flock with both eyes shut. Such shooting may possibly wound some birds but more likely will hit them not at all. Mark well the birds which cross the woodland fence. They will not go far beyond it. And here the sportsmen differ in their methods of pursuit. Some say do not follow the scattered birds at once but seek another covey first. This is the rule of action laid down by Forester, Lewis, and some other writers. Many sportsmen of much experience, however, will lose no time in getting to the woods.

It is certain that often the birds will not be found even by the best of dogs, and many say they have the power of withholding their scent. I have often marked the birds to a small thicket, or even patch of briers, where they certainly went down, once between me and a horse within the field, and with the best of dogs I could make but one of them take wing. On one occasion I even saw a partridge on the ground and two dogs as good as any passed each side of it, and but a few feet away. They even failed to take notice of it when I again brought them where it was, and finally I moved it with my foot, when up it went. There were at least fifteen birds in the covey, and all were on the ground, but not one more was moved, although the dogs were worked closely back and

forth. An hour later I returned to the same place and the birds were pointed one by one. Whether the birds actually have the power of withholding the scent we do not know. They certainly are often safe from the noses of good dogs. The best opinion seems to me to be that the scent is dissipated by the birds' rapid passage through the air, and when they first alight they press their wings closely to their bodies, and do not give forth any scent until they move again.

Since the birds do not always act in this manner, however, I believe it is well to follow them at once, especially if the beat will take one far from the place. It may be the birds have moved or for other reason give forth some scent, and the dogs will at once point them one by one. The matter is, however, easily ascertained. If the birds are not found at once, it is well to leave them and return later.

Partridges fly rapidly. They seem to be under full headway as they leave the ground. It is absolutely necessary, as I have repeatedly said, to shoot well over rising birds, and well ahead of those which go off to right or left. An old English game-keeper, quoted by Stuart-Wortley, well said, "You will surely miss them if you shoot where they are." It is important that the shot should be so placed that the bird will fly into the centre of the charge. The effective killing-area is in the centre of the pattern. Straggling shot at the sides will often wound or miss the bird, and the same writer says "wounded birds will distress a first-rate man, so that he would almost as soon have missed them altogether." By shooting at the centre of the flock several birds may possibly be killed at one shot,

but more are often wounded. Remember, therefore, to shoot at a single bird, and aim well forward and high. Of course, if the covey be flushed on a hill-side, and the birds fly down, the aim should be well under instead of over them. Beginners shoot under and behind the birds. Mayer says: "The velocity of an ounce of No. 8 shot, driven with three drams of powder, is near to nine hundred feet per second. In that second a Bob-white, if under full headway, will go eighty-eight feet, if we estimate the velocity of his flight so low only as a mile a minute. If he is flying directly across your line of sight and thirty yards off, the shot will take one-tenth of a second to reach that distance, and in one-tenth of a second the bird has gone over eight and eight-tenths feet." It is a most difficult point for a beginner, and he continues to miss until he can bring himself to shoot well ahead of cross-flying shots and well over rising birds. In shooting at ducks when several are flying in a line, one behind the other, he will be surprised to see a bird far behind the one he shot at fall dead. The reader will find examples of this in the chapters on the water-fowl. Partridges require hard hitting to bring them down. It is therefore all-important that the aim be true. As for the shot, No. 9 will do early in the season, but a little later No. 8 will be found more effective.

Two sportsmen are the proper number in partridge shooting. If there are more in the party they should take separate beats. I shot many seasons with a friend in Northern Ohio and we were often joined by local sportsmen who knew the grounds, but we always divided up, coming together at the noon hour to dis-

cuss the fortunes of the day, and again at night, at a point where our wagon picked us up. The dogs should be two in number and owned and handled by one person without the slightest interference. When both sportsmen own dogs, they can be handled alternately on different days to advantage. Dogs that are accustomed to hunting together will do the best work. Strangers are often jealous of each other and work badly.

Partridges are often found in the vicinity of old deserted cabins and houses. They find much food in the garden or orchard, and such places are almost certain to harbor a covey. I always go out of my way to run the dogs over such places, and many sportsmen of my acquaintance do the same. Mr. King, an accomplished sportsman of Pittsburgh, recently told me that he once flushed a covey which flew directly toward a house some distance away, when he lost sight of them, flying low. He approached the house, thinking that he would ask the owner's permission to shoot, but discovered that it was abandoned, both doors and windows were out. Knowing well the fondness of partridges for such places, he proceeded to run his dogs over the ground on all sides of the house, but failed to move a bird and gave them up. Just before going away, however, he decided, out of an idle curiosity, to enter the house, when with a loud whirring the whole covey went out through the windows, and as my friend expressed it, he was too astonished to fire a shot.

I have known the wood-grouse also to enter abandoned houses, and the reader will do well, especially when hunting partridges, not to pass one by.

In a bulletin issued (1885) by the Agricultural Department of the national Government, I find the following: "The question is often asked whether the habit quail (partridges) have of lying to the dog is natural or acquired. To get a satisfactory answer one has only to hunt in different parts of Indian Territory. In the region west of Fort Sill the quail never think of stopping when they see a dog, but run as fast as possible, and upon his near approach they flush immediately, just as one may suppose they do on the approach of a coyote. In the eastern part of the Territory, near the railroad, the quail lie quite well to a dog and, as they are exceedingly abundant, excellent sport may be had from November until March."

This brings to mind an opinion expressed by that distinguished ornithologist, Dr. Coues: "I am inclined to think indeed," he says, "that the lying of quail [partridges],* an essential feature for the chase in its perfection, is almost as much a result of education as the 'pointing' that the intelligent brute who helps us kill them has learned. In a primitive and strictly natural condition, quail as a general rule rather use their legs to escape pursuit, than squat and attempt to hide. That the reverse is the case with the Virginia quail [the Bob-white], I am perfectly aware, but this proves nothing to the contrary, and I am inclined to think its crouching until almost trodden upon, to be an acquired trick. This would surely be a poor way to escape from any of its natural enemies—any carnivorous bird

* This was written before the Ornithological Union, of which Dr. Coues was a member, decided that the birds are partridges. The brackets are mine.

or mammal; yet they found it to succeed so well against their chief persecutor, that he has had to call in the aid of a sharper sighted, sharper-nosed brute than himself, else he might stumble over stubble-fields all day without seeing a bird except by accident. I presume that Virginia quail in the days of Captain Smith and Pocahontas were very much in the social status of the Oregonians to-day; and those certainly trust to their legs and wings rather than to the artifice of thrusting their heads in a tussock of grass and then fancying they are safe." . . . "It will probably require several generations in training before the blue or scaled partridge of the Southwest, which now trusts to its legs rather than its wings, and glides along with marvellous celerity, can be taught to lie well to the dog."

A mixed bag is attractive, and an opportunity is here presented to some of the Southern clubs and to gentlemen owning private preserves, to give not only the blue partridge, but the California and Gambel's partridge also, some lessons in lying to the dogs. Having seen those birds go, afoot, I am prepared to say the lessons, if successful, would make them better birds.

As I have said, efforts to introduce Bob-white into Arizona have not been so far very successful. A few hogs introduced at the same time with Bob-white would aid the birds, in my opinion, in that land of snakes and reptiles. The habit of "lying close" would certainly not work well with snakes.

Partridges when disturbed, as I have observed, at once fly to the nearest cover, and there, though well scattered, the dogs point them one by one. The shooting at scattered birds in the woods is in my opin-

ion, the best sport offered to the sportsmen of America. Here the swiftly flying marks test his skill to the utmost. Here his dogs appear to the best advantage. Often the shooting is quite rapid, many double shots are offered and the background is the most beautiful in the world. The brilliant colors of the trees, the fallen logs, moss and lichen covered, the carpet of bright leaves, the grass and the vines, are blended with many tones of gray and the blue mist of the Indian summer. "Whirr! Whirr!" go the birds, "Bang! Bang!" go the guns. Here, to my mind, is the acme of sports afield.

The average number of birds killed from each covey is small. Alfred Mayer, quoting Mr. H. H. B. Davis, says the average is a little over three birds brought to bag from each covey flushed. Mr. Starr, after taking the opinion of nearly three hundred sportsmen who replied to his inquiry, places the average at a smaller number. An average shot in a good average day (finding nine coveys), he says, will bag twenty birds, killing 53 per cent. of his shots. The reader who will keep a record of the number of coveys which he shoots at in a season and the number of birds brought to bag will find these figures not far wrong.

On stormy days and on days when the snow covers the fields so as to render the partridges conspicuous they will always be found in the woods. The sportsman who is familiar with his ground and knows the fields where the partridges usually are, will seek them in the adjoining cover and not very far from the fence. I have often put up the covey from an angle

in a rail fence, especially when it was overgrown with briars.

There are a number of varieties (the sub-species of the ornithologists) given in the books, and many attempts are made to extend the list. We now have no less than three species: the Bob-white, the Grayson's Bob-white, and the masked Bob-white. Bob-white has two sub-species, the Florida Bob-white and the Texas Bob-white. There are nine additional Bob-whites named and reported in the *Auk*, for April, 1898, and no doubt, as the politicians say, there are several counties yet to hear from. The sportsmen have little interest in what I have been pleased to call fractional species of birds, and I think they agree with what I said in "The True Game Birds": "Until the variety-makers find a bird which does not whistle 'Bob-white,' which has not the same pattern or markings, which does in fact differ in some material habit of nesting, rearing its young, feeding, flying, lying well to the dog, or equally well on the plate, the sportsman may well consider the species and sub-species of Bob-white as one and the same."

White partridges, albinos, have been shot in many places, and mounted specimens may be seen in the museums. They are uncommon. I have never seen one alive.

XVII

THE CALIFORNIA PARTRIDGES

THESE are two remarkably beautiful birds, generally known as the California partridges. Both of these birds are of a slate-blue color, handsomely marked. Both are found on the Pacific Coast. The mountain partridge is the larger bird, and is somewhat larger than Bob-white. The California partridge, more often called the valley-quail or partridge, is smaller than the Bob-white. These birds have handsome black plumes on their heads, and are often designated as plumed partridges. There are two sub-species of the mountain partridge and one of the valley bird, but these are of the same general color and markings, and have the same habits, and the differences are so slight that they do not appear when the birds are pictured in black and white.

The inhabitants of California, outside of technical ornithologists, only know two birds—the mountain and the valley partridge. These birds trust to their legs more than their wings, and are remarkably expert runners. On that account they are not very desirable game birds. The flesh of both is excellent, they fly swiftly with the whirring noise common to all gallinaeous birds, are excellent marks, and the California sportsmen are much given to their pursuit. Dogs are

used, and sometimes the birds lie fairly well to them, but such conduct is exceptional.

Many of the birds were formerly taken in traps, and some years ago, when they were extremely abundant, they were shot by market gunners on the ground and sold in large numbers in the San Francisco markets. The Indians use the plumes plucked from the head to decorate their baskets.

The smaller birds are always the most abundant. The flocks are often large. The larger birds are never seen in large flocks, and are found, as their name would indicate, in the hills and mountains.

The crest or plume of the mountain partridge consists of two straight black feathers much longer than the bill and head. The crest of the valley-bird is also black, but short and narrow at the base, widening out and curving forward at the tip.

THE MOUNTAIN PARTRIDGE

The mountain partridge and the sub-species known as the plumed partridge and the San Pedro partridge, are, to sportsmen, the same. The range of these birds is from Southern California north to Washington; the mountain partridge being assigned by the ornithologists to the region north of San Francisco Bay, the plumed and San Pedro partridges to regions south of the bay. The mountain partridge has been introduced on Vancouver Island. I first observed these birds many years ago when they were quite tame. They were in small flocks and took to their legs, or flew away on whirring wings.

I scattered a flock one day, when a cock-bird lit upon a rock quite near, and standing where the sunlight fell upon his shining feathers, I was able to observe him closely for some time. He had the same trim outline and jaunty pose as our own Bob-white, but his gay plumage and long, black plume caused me to regard him as more beautiful. I had no desire to shoot him and presently he flew away. Large game of all sorts was abundant. I had been shooting for some weeks in the Rocky Mountains and on the plains. Even the large blue- or dusky-grouse was not inviting as a mark.

The birds are much wilder now than formerly and far less abundant. There are few places where a large bag could be secured, but their pursuit leads the sportsman into wild and picturesque localities, into forests of gigantic trees, on mountain sides, beside the streams of pure water, and beautiful cascades. While rambling on a pony in the woods one is inclined to forgive the ungamelike habit of the birds, which, as Bendire has said, is very trying to the human and perfectly exasperating and bewildering to the dog.

THE VALLEY PARTRIDGE

Upon a journey to far-famed Yosemite I first saw the smaller California partridges, known throughout the State as the valley partridges.

They were extremely abundant along the road and in large flocks ran before the horses upon a near approach, and sometimes took wing and whirred away into the chapparal. The flight of these birds is swift

when once they are on the wing and when I first observed them they were so tame as easily to be approached within short range, but the difficulty was to make them take wing, for no one cares to pot a covey on the ground. Their speed afoot was most remarkable. They were often in sight in the open brush or on the roads racing on ahead. I am quite sure we saw as many as fifty flocks in a day without leaving the wagon, and it may be many more. When on the wing they flew but a short distance, and as I have said in writing of these birds, their feet began to go before they fairly touched the ground, and as they sailed along the surface it was difficult to tell just when the flying ceased and the running began. Their speed afoot seemed quite equal to their speed in air.

Sportsmen who have had much experience with these birds informed me that by persistently chasing them about until they were well scattered they sometimes could be made to lie to the dog, but as a game bird they are in no way to be compared to the partridges of the Eastern States.

The California valley partridge was formerly distributed throughout the coast and interior valleys and on the foot-hills of the Sierra Nevada mountains. They have been introduced into Oregon, Washington, and British Columbia.

In the southern parts of California the birds are often found on grounds overgrown with cactus, which presents another serious difficulty for the dogs. A friend who has shot much on such ground informs me that on one plantation the owner had paths cut through a large field of cactus, which was a harbor of refuge

for the birds, and having driven a large number of flocks to this place they went in with the dogs, working along the paths, and often made large bags, on one occasion no fewer than ten dozen birds. I have heard of much larger bags, numbering hundreds of birds, being made in the earlier days when the game was extremely abundant, but no doubt much of the shooting was at birds on the ground, when a dozen or more might be killed at a single shot.

Mr. T. S. Van Dyke, writing recently for the *Western Field*, the Pacific Coast magazine, says he has written so often of this bird that he feels positively ashamed every time he looks at one. He said that when he first came to California, in 1875, quail in flocks now quite incredible soared out of almost every cactus patch, shook almost every hillside with the thunder of a thousand wings, trotted in strings along the roads, wheeled in platoons over the grassy slopes and burst from around almost every spring in a thousand curling lines. The same writer says that the partridges have already deserted many of the valleys and are now more often found in the hills, ready always to run and fly from one hillside to another, and "their leg power, always respectable enough to relieve you from any question of propriety about shooting at one running, they have cultivated to such a fine point that sometimes they never rise at all, and you may chase and chase and chase them and get never a rise." Writing at another time Mr. Van Dyke advises the shooter not to attempt to bag anything at first, but to spend all the time in breaking and scattering the coveys, racing and chasing after them and firing broad-

sides over their heads and in front of them, until they are in "a state of such alarm that they will trust to hiding." He then advises that the dog (which I presume has been used in coursing the birds) be tied to a shady bush and that the coat be laid aside, that the sportsman may travel fast after the scattered birds.

The dogs which have had experience with these birds are of course better than dogs which have been trained on the Eastern partridge, Bob-white. There are now many fine dogs owned in California, and these, no doubt, have learned to point the running birds at long range, and do good work with them whenever they consent to lie to them. Fast, wide-ranging dogs, such as are good on snipe on the vast Western marshes, dogs with excellent noses, that can point the game when it is a long way off and keep after it, always careful not to flush the birds, are no doubt the dogs the sportsmen of California must rely on.

The birds to-day are described as much more wild than those of former years, and do not show progress toward that happy day when their education will be complete, and they will cease to trust to their legs and lie well to the dogs. I fear the opinion of the famous ornithologist, the late Dr. Coues, which I have given in the chapter on Bob-whites, may not prove to be correct.

The valley partridge nests upon the ground. There are usually twelve or fifteen eggs. The food consists of seeds, insects, and leaves; the birds are very fond of grapes.

Although known everywhere as the valley-partridge, these birds are often found at an elevation of several

thousand feet. They are more abundant near sea levels, however, than higher.

Although the coveys seldom contain more than twelve or fifteen birds, large flocks are often seen in the fall and winter, which would indicate that these partridges pack like the grouse of the open country.

XVIII

THE SOUTHWESTERN PARTRIDGES

THE three remaining partridges, known as the Gambel's partridge, the scaled-partridge, and the Massena partridge, may be termed the Southwestern partridges, since they are found in a limited area of which New Mexico or Western Texas may be said to be the centre.

The scaled-partridge, with its sub-species, the chestnut-bellied scaled-partridge, inhabits the table-lands of Mexico, and is found from the valley of Mexico north to Central and Western Texas, Santa Fé, New Mexico, and Southern Arizona. Gambel's partridge, which enjoys the proud distinction of having no sub-species, is distributed throughout Western Texas, New Mexico, Arizona, Southern Utah, Southern Nevada, Southern California, in the Colorado valley, and southward into Northwestern Mexico. The Massena partridge is found from the City of Mexico north to Western Texas, New Mexico, and Arizona. Gambel's partridge and the scaled-partridge have much the same habits as the valley-partridge of California, and run equally as well; much that has been said about that bird applies to these.

There is much diversity of opinion as to the performance of the Massena before dogs. It is the least abundant of the Southwestern partridges.

GAMBEL'S PARTRIDGE

Gambel's partridge is the same size and has much the same appearance as the valley-bird of California. It has a similar plume of black feathers on the head, but the golden-brown area on the belly of the California bird is replaced by black in Gambel's partridge. The Gambel's partridge is the handsomer bird.

Dr. Coues referred to the valleys of the Gila and Colorado rivers as centres of abundance, and says, "About Fort Yuma there were more quails to the square mile than I ever saw elsewhere, and indeed I could scarcely see how many more could well have been accommodated with food and hiding places."

The young of this partridge are hatched in May, and like those of other partridges they are extremely precocious. The cock-bird utters a loud whistle during the mating season entirely different, however, from the notes of Bob-white.

The coveys usually contain a dozen or more birds. Coues says he never saw a covey containing more than twenty birds, but larger coveys of fifty or more young birds are reported, which may be accounted for either by the fact that the birds are polygamous or possibly several coveys have associated. These birds pack, like the California partridge, into very large flocks late in the year.

Gambel's partridge flies with the usual loud whirring noise, and when it takes wing within range presents a similar mark to that of Bob-white; a 12-gauge is the proper gun; No. 8 the proper shot. Elliot says this bird possesses the same disagreeable traits as the

California partridge, when he is regarded as a game bird.

A few years ago it was customary to trap these birds, and thousands of dozens were sent to the San Francisco markets. At one station the express agent shipped no fewer than three thousand dozens in a season (1889-90). The price was as low as 60 cents a dozen. It is no wonder that the birds rapidly decreased in numbers and were threatened with extermination. Arizona now has good game laws, and these are executed. Trapping is prohibited at all times, as it should be, and it is a misdemeanor to ship these birds from the Territory.

The Indians snare many of these partridges, and use the plumes as ornaments, but they do not kill the birds, but release most of them, having deprived them of the plumes.

Dr. Coues tells of killing with mustard-seed shot a wolf which he found hunting a covey of these birds. I once made a similar shot at a fox which was pointed by my dog at the same time with a covey of partridges (the Bob-whites).

THE SCALED-PARTRIDGE

I once had a covey of these beautiful birds, often called the blue-quails or partridges, in captivity, and had an opportunity of observing their speed, as they ran about the sides of the room, close to the wall. I was prepared to bet on my birds in a race against all comers. I doubt if any of the Californians or Mr. Gambel's birds could beat them. Their leg power was

tremendous. The scaled-partridge is of a slate-blue color, but it has peculiar markings, which resemble imbricated scales, and which, of course, suggested the name. It is a handsome bird, and has a crest which it can elevate. The crest-feathers are tipped with white, and the bird is sometimes called white-crested quail.

The scaled-partridge is most abundant in the valley of the Rio Grande. It flies like the other partridges, and presents similar shots when one can get within range of it. The ground where it lives is covered for the most part with many varieties of cactus, and every living thing in the vegetation line seems to have a thousand spines attached to it, which would render the dog useless if the birds were willing, which they are not, to allow him to approach.

They are often seen in the roads, and by driving or riding along with a horse that will stand fire some shots may be obtained; but the sportsman who goes in to retrieve his birds may spend the rest of the day picking spines out of his legs, so that the sport is for several reasons not very attractive. The precise range and description of the bird are fully given in the notes.

THE MASSENA PARTRIDGE

The Massena partridge is one of the few game birds that I have never had the pleasure of meeting, but I have always taken an especial interest in it, not only on account of its peculiar bizarre appearance, but for the reason that my information led me to believe that this partridge was more like Bob-white than any of the other American partridges—in other words, that

it stood for all that was good in a game bird. The mountain and valley partridges of California, the Gambel's and the scaled-partridge of the Southwest are, as we have seen, great runners and most exasperating to well-trained dogs. Unless the Massena proves to be of some account we have only one real good partridge in America.

Our early information as to the Massena came from officers of the army who were stationed in the Southwest. Colonel McCall first reported it in 1851 as fairly abundant from the San Pedro to the Rio Pecos, and says it was always quite confiding, and he was inclined to think that with little difficulty it might be domesticated.

Kennerly says he has often known Mexican soldiers to kill them with their lances. Elliot says it is often called a fool quail, on account of its confiding disposition.

All the writers I am familiar with, excepting a recent correspondent of the *Sportsman's Review*, describe the bird as very tame and confiding and not inclined to run like the other Western birds, but their opinions are at variance with this recent correspondent. I do not know his name and the editor of the *Review* writes that he cannot now give it to me.

The Massena is about the same in size as the other partridges, but it is easily distinguished by the white spots which cause it to resemble a small guinea-hen.

It is nowhere found in any numbers, and a naturalist of my acquaintance, who visited its habitat in the hopes of securing specimens, returned without a bird.

BOOK II
WILD-FOWL, OR SWIMMERS

XIX

THE WILD-FOWL, OR SWIMMERS

THE wild-fowl of the sportsmen are the swimmers (*anatidæ*) of the ornithologists. There are two hundred species of these birds in the world and about sixty of them in North America. The swimmers are second only in importance to the gallinaceous birds. It is possible that a majority of sportsmen would reverse the order and place the swimmers first. Elliot is of the opinion that the duck-shooters are in the majority. The order of swimmers contains a greater number of large, fine game birds than the order gallinæ, and many of these are noted for their handsome plumage; one of them, the wood-duck, is the handsomest water-fowl in the world. The pursuit of these birds takes the sportsman to the bays, lagoons, and marshes about the coast, and to the lakes, ponds, and rivers of the interior. The pleasures derived from sailing and boating are added to the shooting, and the vast marshes overgrown with tall reeds and rushes and many wild grasses and aquatic plants are charmingly picturesque. Much skill is required in approaching and shooting the game.

There are five families of swimmers—the swans, the geese, the sea-ducks, the river-ducks, and the mergansers. To these Elliot adds two sub-families, one to include the wood-duck and the other the spine-tailed ducks; but from the sportsman's point of view the

classification I have given, which is that of the American Ornithological Union, is sufficient. The wood-duck is a shoal-water duck, and is often found feeding with other dabblers, such as mallards and spoonbills. The sportsman does not care to follow ornithological refinements too far. The sea-ducks, or divers, escape more often when wounded, by diving, but the shoal-water dabblers are extremely expert at hiding in the reeds.

The wild-fowl are migrants. They go north to build their nests and rear their young. Many of them go within the arctic circle. In the West many ducks and some geese nest within the northern boundary of the United States. But in a few years at most not one will remain to nest, and it will not be long before the Western lakes, which are now crowded every spring and fall with fowls, will be as desolate as the New England ponds.

With their young, the wild-fowl return to the United States early in the autumn, and as the waters freeze in the Northern States they proceed southward. With the first signs of spring, often as early as February, they move north again, and so soon as the ice disappears they may be looked for on the bays and marshes. The hardier varieties, such as the canvas-backs, red heads, and the scaups, or black-heads, are the last to go south in the autumn. Some of them winter in the vicinity of New York, many more at Chesapeake and Currituck Sound.

The swans are large birds, and now in many places extremely rare. They are probably more abundant on the Pacific Coast than elsewhere.

The geese and brant also come each year in greatly diminished numbers. The brant are often called brant- or Brent-geese, since they resemble the common wild-goose, being smaller. The sea-ducks and the river-ducks are not easily approached, but most of them come to decoys, and their numbers are annually reduced at an alarming rate. The sea-ducks have larger feet, and the legs are further back than those of the river-ducks. They are therefore better swimmers and divers, but their progression on land is more difficult. The terms sea-ducks and river-ducks used by the ornithologists are somewhat misleading, since the sea-ducks, such as canvas-backs, red-heads, and scaups, and most of the others, are found often on the rivers and lakes far from the sea, and thousands annually travel the great valleys of the Missouri and Mississippi rivers upon their spring and fall migration. The terms deep-water ducks, or divers, and shoal-water ducks or dabblers, are more accurate, since the canvas-backs and other sea-ducks prefer the deep-water, and dive long distances under it in their search for food, while the shoal-water ducks feed by dabbling or tipping like the common barn-yard ducks.

The number of wild-fowl which came formerly to the bays and lagoons along the Eastern coasts, was almost beyond belief. Flocks were often in sight following each other in quick succession for days at a time. There were acres of ducks on the water. In the far West I have seen such sights, and can readily believe the accounts of the former abundance of these birds about the coast.

Persistent shooting, especially for the markets, has

much reduced the ranks of those which travel over the Eastern course, but the birds still move from Dakota to the Gulf in immense numbers. There is a record of three guns killing one thousand three hundred and seventy-two ducks in forty-eight hours at Lake Bistineau, Louisiana (March 9, 1902), and only the birds actually bagged were counted.

I know of a bag of over one hundred ducks made one morning by a gun in Ohio, in the fall of the preceding year. These records indicate that the ducks still come in goodly numbers.

Such killings as those referred to by men who shoot for sport, added to the tremendous execution of the market gunners, will, if continued, soon make the duck a rare bird on our Western waters. I recently saw a gun at one of the Ohio clubs, which, in the hands of a market gunner of Sandusky, killed one hundred and eighteen ducks at one shot. Not satisfied with shooting from the shore, the market gunners and sportsmen stationed themselves in floating batteries on the feeding grounds, thus preventing the ducks from feeding. A few years ago, before there were game laws or preserves, the booming of the guns in the marshes sounded like the skirmish fire of an army. The shooting begins in the Northern States with the arrival of the first ducks and is kept up until the freezing of the waters ends the slaughter. As the ducks proceed southward, new guns are ready for them, and in Southern waters, their winter quarters, they are persecuted until their departure in the spring. Not satisfied with the results obtained with the cannon used by market gunners, the Mexicans have a method of

slaughtering the birds even more destructive. The ducks are baited with barley and corn on the lakes and ponds, and carefully guarded and fed by men on horseback, who often ride among them slowly and accustom them to their appearance until the time for the "armada" arrives, when the ducks are driven slowly to the place of slaughter.

Dr. W. H. Howe, of Mexico City, says:* "An armada is built in a half circle, just above the water-line, where are placed from two to three hundred barrels; one half set to rake the water, the other half to catch them just as they rise. The destruction is tremendous. I was at one armada some years ago, on the Hacienda Grande at the north end of Lake Texcoco. After the gathering was completed, I asked the overseer how many ducks were secured and he told me he did not know, as they count sixteen and then make a tally mark for a dollar; but it amounted to \$256, at sixteen to the dollar, which made it count up four thousand and ninety-six ducks at this one killing. During the following spring, perhaps in April, Signora Cervantes de Rivas, of one of the oldest families of aristocratic Mexicans, owner of the Hacienda Grande, told me that the net profits on ducks that winter was a little over \$13,000 on her hacienda. This would represent two hundred and eight thousand ducks for this one hacienda, and there are hundreds of other haciendas doing the same business with weekly or bi-weekly shoots. The number of ducks slaughtered is almost incalculable." The feathers, he was informed, are sent to Germany. It is not to be won-

* In *Field and Stream*.

dered at that the ducks which run the gauntlet of the guns twice each year as they cross the United States, and accept the invitation to winter at the haciendas are diminishing.

It is the fashion to shoot wild-fowl in the spring. One or two States have already, to their credit, prohibited shooting at this season, and the sportsmen are more and more convinced that spring shooting should be prohibited everywhere. The laws which have been most beneficial to the ducks are those which prohibited shooting for the market, the sale of game, the use of the big guns and the shooting on the feeding grounds and night shooting.

We proceed to the marshes to pursue the swans, the geese, the brant, and the ducks.

XX

THE WILD SWANS

THERE are two swans indigenous to North America. Both are white birds, but they are easily distinguished by their size. The trumpeter swan is the larger and weighs from twenty to thirty pounds. The smaller bird, known as the whistling swan, weighs from twelve to twenty pounds.

These birds are extremely wild and shy, and but few sportsmen have shot them.

The smaller bird is found throughout America, and is still fairly abundant in the winter on the Currituck Sound, where Elliot says they do great damage to the feeding grounds, destroying very much more grass than they consume, and for this reason they are not altogether regarded with favor by sportsmen, as they soon render useless large tracts of grass-covered bottom to which ducks and geese would resort for a long time, but which they are forced to desert on account of the wasteful destruction.

The swans fly in long lines like the geese, and are very beautiful in the air, as well as on the water when the sun shines on their white feathers. The smaller birds are said to be gaining in numbers in the Southern sounds and are common in Texas in the winter. They are more often shot as they fly over.

Formerly it was the practice to sail down on the birds, going with the wind. Since the heavy birds are compelled to rise against the wind and do so with difficulty they were often taken in this way, but shooting from sailing boats and all motor boats is now prohibited by law, and this protection, no doubt, is one of the causes of the increase of the swans on the club preserves.

Swans when flying about are often so high as to be out of range and always on the lookout for danger. It is, of course, impossible to get near them with a boat propelled by oars.

The young swans are fairly good to eat, but the old birds are tough and not desirable as food. The young are gray and easily distinguished from the old birds.

I saw many swans in the Devil's Lake region, North Dakota, some years ago, but they are not nearly so abundant there or on the Pacific Coast as formerly.

The trumpeter swan is named from its loud voice, which is said to resemble the notes of a French horn. This bird is found in the Mississippi valley and on the Pacific Coast, but never appears on the Atlantic Coast.

Although the swans do not seem to be going fast, on account of their labored flight, they in fact go one hundred miles an hour; and anyone who will time the birds as they fly out of sight will be convinced that they are travelling rapidly. It is necessary to shoot well ahead of them, and large charges of powder and heavy shot are required to bring them down.

The swans are so well able to get out of danger and so careful not to come near it that a wild-swan chase

is far more difficult than that of the far-famed wild goose. The latter come readily to decoys, but swans do not do so often enough to make it worth while to go out for them.

Swans are often taken by stalking them when they are seen sitting on the shore. Upon a recent visit to Currituck I learned that the swans still winter there in large numbers, and found in the game-register of the Princess Anne Club records of bags containing 7, 8, and even 12 swans killed by club-men in the past few years.

Some swans were seen in a pond near one of our camps near the Cheyenne River, and a friend of mine spent several days trying to stalk them, without success, however. Meantime I had fair sport with the geese, canvas-backs, red-heads, scaups, mallards, spoonbills, teal, gadwalls, and shot many other ducks.

I have the same objection to swans that I have to wild turkeys. It is entirely too long between shots, and in fact there is usually no shooting at all.

Elliot, in his popular Ornithology, describes the peculiar musical notes of a wounded swan which he shot at Currituck Sound. He had never heard them before, and as the wounded bird floated down to the water, singing as it went, he was filled with astonishment and could only exclaim: "I have heard the song of the dying swan."

I had always supposed, as Elliot did, that the death song existed alone in poetical fiction.

XXI

WILD GEESE

THE common wild-geese known as the Canada geese are familiar to everyone who observes wild birds at all. They fly high in the air in long lines converging to a point in front, where an old experienced gander takes the lead and sounds the *honk*, which can be heard for a long distance, and which is taken up by those behind. The geese come to the United States from the north, usually late in October and during November, moving south as the waters freeze over. They are common on both coasts and in the interior. I have seen them in great numbers in the Missouri valley, and fairly abundant in the spring and autumn on the Long Island bays. They are easily domesticated, and in Dakota I often saw birds which had been wounded and which were kept as decoys. Geese are shot over wooden decoys and metal profiles, but the live birds are used wherever the geese come in any numbers, and, of course, are the best ones. It is impossible to distinguish the domesticated birds from the wild ones. I was once shooting over live birds in the West when I saw a Sioux Indian approach my stand, and when he discovered the geese he left his pony far out on the plain and carefully proceeded to stalk them. I was perfectly concealed and enjoyed the performance, but stopped him just as he



SHOT BEHIND HIM

was about to shoot, since I was afraid he would bag me with the geese.

When the geese come in to the decoys it is possible to get several with one shot on the water, shooting at the heads which are close together, or nearly in line, and another bird with the second barrel as they take wing. I was once shooting ducks from a shore blind on one of the Long Island bays, and a market gunner was out on the open water in a battery with a flock of live wild geese as his decoys. A flock of seven geese appeared far out over the beach, honking as they came, and the decoys soon answered them from the water, when they turned and sailed gently down to join their friends. The market gunner waited for some time after the birds were on the water, and then fired two shots from one gun and two more from another before they were out of range and only one bird flew away. This went off a mile or more and then circled about and returned again to the decoys and was shot as he approached.

The geese have apparently a slow flight, but as a matter of fact they move with great rapidity, and it is therefore necessary to shoot far ahead of them when passing. They are fond of sandy bars and beaches, and when they are discovered using such places a blind is made by sinking a box or barrel in the sand, and when the birds return they are attracted by decoys and often come within easy range.

They have a habit of resorting to the fields to feed in the morning and evening, returning in the middle of the day and at night to the lake or river, and they are often shot from a blind placed on their line of

flight. Great bags were made a few years ago, but the heavy shooting has sadly diminished their numbers in Nebraska and throughout the Mississippi valley.

I once saw a flock alight on the parade ground at Fort Buford, at the mouth of the Yellowstone, and so long as the Sioux were a menace to the shooters the geese, and in fact the buffalo, elk, deer, and grouse were extremely abundant in that region. The number of the ducks and geese was beyond belief.

Geese and brant are still very abundant on the Pacific Coast. The San Francisco *Evening Post* contained a short article last September, stating that two shooters, W. E. Newbert and W. H. Young, of Sacramento, had recently killed one hundred and seventy-three geese or brant in Glenn County, California.

The editor of *Recreation*, seeking material for the "Game hog" department of that excellent little magazine, wrote and asked if the fact was correctly stated. Mr. Young replied, stating that they did kill one hundred and seventy-three geese or brant in one day's shoot, that is in two hours one evening and in five hours the following morning, but he says the geese in that neighborhood are very destructive to the newly sprouted grain and the farmers are compelled to hire men to keep them off their grain night and day. One hardware firm shipped to the Glenn ranch thousands of rifle cartridges each week to be used in driving geese off the fields.

A heavy fog causes the geese to fly low and often to alight. They seem to become confused and unable to proceed on their journey to the north or south.

It is most important for the sportsman to know what the birds are doing—what points they are flying over when they go out to the fields to feed, what course they take in returning to the water, what fields they are using, and in what particular part of a field they are feeding, and what sand-bar in the river or what part of the beach they frequent. Time spent in finding out what the birds are doing is well spent, since a blind or ambush placed where there are no birds is, of course, useless. When the shooting is to be done in a field, it is well to seek a place where the birds are feeding and after they have left, dig the holes in the ground and carefully remove the dirt, scatter it so it will not be noticeable and arrange the grass or stubble about the aperture, so as to make it resemble that adjoining. Remember that geese have very sharp eyes, and are quick to discover any change in the appearance of a field or sand-bar. When they are feeding some are always on the lookout and act as sentinels, and it is impossible to approach them within range. An ox trained to walk slowly along as though feeding has been used as a blind behind which to approach the birds.

Geese, like swans, are compelled to arise against the wind, and in California, Mr. Van Dyke says, a wagon may be driven down wind rapidly so as to carry the shooter within range, but the shots must be fired as the vehicle goes tearing along, since there is no time to stop it before the birds are out of range.

Professional gunners can imitate the call of the geese and often turn them to the decoys by "honking" to them when the birds are passing at long range or

high in the air. Live decoys will also call the passing flocks.

A local law in New York State, but three lines long, which reads: "Web-footed wild-fowl shall not be taken in the county of Jefferson from February 1st to August 31st, both inclusive; or taken in the night from sunset until sunrise," caused the Canada goose and many ducks to become quite tame so that boats could approach them closely. Herbert Job recently found and photographed the nest of the Canada goose in North Dakota.

At many of the duck clubs there are excellent punters, who know the grounds and where the geese are likely to be. The sportsman who handles his own boat must have a knowledge of what the birds are doing in order to be successful at this sport.

Grinnell thinks the geese as well as the swans are increasing on the club preserves at Currituck. The laws prohibiting the shooting from sailing and motor boats and the club rules at two clubs forbidding spring shooting have had no doubt much to do with this.

XXII

OTHER WILD GEESE

THE HUTCHINS GOOSE

THE Hutchins goose might readily be mistaken by a sportsman not much familiar with wild-geese for the Canadian or common wild-geese, with which it is often seen associating. It is sometimes called the lesser Canada goose. It is shot in the same manner as other geese, and its flesh is excellent. It is found in the western portions of the United States.

THE CACKLING GOOSE

Ornithologists designate this goose as *Branta Canadensis minima*. As the name would indicate it is a small Canada goose. It is a Western bird, abundant in California and at times seen in the Mississippi valley. A picture of this bird would be the same as that of the common wild-geese, the *Branta Canadensis*, and indistinguishable from that bird unless the size were given.

The Emperor goose is very rare, more often seen in Alaska, I believe, than elsewhere.

The Bean goose is given as an old-world species, which occasionally comes to our shores.

THE BLUE-GOOSE.

One of the handsomest of the geese, the blue-goose, is but little known. It is more often seen migrating in the Mississippi valley. Its head and neck are white; its breast, back, and wings are grayish-brown, and the under parts are white. I have never shot this goose, and in fact have never seen one near enough to recognize it. It was supposed to be the young of the snow-goose, but the ornithologists now say that it is a separate species. The sportsman who may be fortunate enough to bag one can readily identify it from the description. It does not frequent the Pacific Coast.

THE WHITE-FRONTED GOOSE.

The white-fronted goose is abundant on the Pacific Coast, and is also found in the Mississippi valley, and is said to be common in Texas. Elliot says the white-fronted geese are often seen associating with other geese, especially the snow-geese. I have seen thousands of snow-geese, but do not remember to have ever seen them associating with other geese. Other geese are often seen on the same lake or pond, but usually, I believe, by themselves.

The geese are all shot in the same manner, over decoys or from ambush, as they fly from one feeding ground to another, or from the lakes to the fields. They will, when not too much shot, follow the same line of flight, and the observant sportsman will have no difficulty in getting under them; but he must be perfectly concealed and remain motionless until they are

within range and then shoot quickly and well forward.

I was once shooting geese and ducks in the West and had a soldier from the garrison who assisted in carrying the game, when two geese came flapping along and did not appear to be going fast. I saw them when they were some distance off, and was ready for them when they came within range, and expected fully to make a nice double. Aiming but a short distance ahead, I fired two shots in quick succession, but was not rewarded with a feather. The geese kept on their course, honking a farewell, and in about a minute had crossed a wide lake which was spread out behind me. I was aware that I had shot behind them both, and as they quickly disappeared from view realized how fast they were going. There is no bird whose flight is more deceptive. They are always going much faster than they seem to be.

XXIII

THE SNOW-GEESE, BRANT, ETC.

THE snow-geese are smaller than the Canada or common wild-geese, and are near the size of the brant, familiar to those who shoot on the bays of Long Island. There are three varieties, all white, as their name would indicate, and one of them, Ross's snow-geese, is one of the smallest geese known, adults of this species weighing only two and one-half to three pounds.

The snow-geese and the lesser snow-geese are so much alike as to make it necessary to measure them carefully in order to distinguish them.

The lesser snow-geese is the Western variety, and is found from the Arctic Sea to the Gulf of Mexico. The greater snow-geese is the one found east of the Mississippi River, and was formerly very abundant at Hudson's Bay, where a single hand has killed as many as a thousand in a season.

The snow-geese were extremely abundant in Dakota a few years ago, and I have seen them when they covered the ground in tremendous flocks, which resembled at a distance snow on the ground. They are extremely shy, but many are shot from a blind in the stubble-fields, or as they fly to and from their feeding-grounds.

They are very abundant on the Pacific Coast, and in the Mississippi valley and in parts of Texas in the winter. The shooting of these geese is similar to that of the common wild-geese already described. They do not, I believe, come as readily to decoys.

We occasionally took a long shot with a rifle at a flock of these birds which covered a large area of ground so closely that it seemed impossible to miss them, but such shots were usually not effective. As the ball struck among them, however, it was an amazing sight to see them arise from the ground like great white clouds.

An army officer with whom I was shooting on the ponds about the Cheyenne River one day wounded a snow-geese slightly in the wing, and after a long chase we captured it. It soon became quite tame, and appears in a number of photographs of our camps, standing like a domestic fowl, quite unconcerned by the presence of its enemies.

Some one named it Genevieve, and when we moved our camp it usually had a seat in the ambulance, often in the lap of an officer, and became quite tame. When we returned to Fort Totten it was turned loose in a yard with some chickens and appeared perfectly at home, but when it recovered of its wound it took wing one day and joined one of the flocks which were continually seen in the sky passing over.

Ross's snow-geese is not uncommon in California, but is never found on the Atlantic Coast. But little is known of its habits, since it is a rare bird. It associates with the lesser snow-geese. Hearne is quoted by Elliot as saying that its flesh is extremely delicate, and

as a proof of it he ate two one night for supper, which was doing quite well, even for an arctic appetite.

THE BRANT

There are two brant often called brant-geese which resemble the Canada goose, but are much smaller.

The common brant of the Eastern coasts is sometimes met with in the interior, but it prefers the salt water and is common on the brackish bays of the Atlantic Coast. It may be described as a diminutive wild goose, being very similar to that bird. On the Pacific Coast this bird is replaced by a bird similar in size, known as the black brant.

The common brant were formerly very abundant along the Eastern coast. I have seen many large flocks on the bays of Long Island, but the persistent shooting, especially from batteries and sail-boats, has diminished their numbers. Sailing after brant was an exciting and profitable sport, some years ago, but many of the States have now forbidden the use of sail-boats and all motor-boats in the pursuit of brant, geese, and ducks. It is to be hoped that New York will have better laws regulating the shooting of wild-fowl, and that these methods of pursuit and spring shooting may be abolished at the same time.

The brant come to the North Atlantic Coast in October, and are seen in large flocks. They do not fly in long lines or in the V-shaped formation, as the common wild-geese do, but in a bunch, or in masses, without any orderly arrangement, and without a leader.

They decoy readily, and respond to an imitation of

their note, and their attention may be attracted to the decoys by raising and lowering a foot from the battery.

Like the geese they are fond of sand, and may be shot as they travel to and from the bars, or from ambush, when the place they are using is discovered.

Brant do not fly very rapidly, and are not very difficult marks; in fact they are quite easy when they come to the decoys.

Their flesh is excellent, much better than that of the geese, and they are eagerly sought for in the markets. Their sale should be at all times prohibited, since this would end the shooting of pot-hunters and market gunners who annually destroy large numbers of brant.

The black brant is, as the name would indicate, darker than the Eastern variety, but in other respects much like it. They are excellent table birds, and large numbers are shot every winter in California. They were extremely abundant on the bay at San Diego, but my stay in Southern California was of short duration, and I did not go in pursuit of them.

The black brant fly usually strung out in long lines. They are wild, shy birds, and more easily taken over decoys than in any other manner.

This bird, like the cinnamon teal, is seen as an occasional visitor to the Atlantic coasts, having no doubt missed its way when starting on the northern migration. I have never seen them excepting in California.

It was not unusual, some years ago, for California sportsmen and market-gunners to make immense bags of these birds, but over-shooting here, as elsewhere, has been followed by the usual result.

XXIV

TREE-DUCKS

A REVIEW of the game-birds of North America would be incomplete without some mention of two peculiar birds known as the tree-ducks. But few sportsmen, excepting those who have shot in the States which adjoin Mexico, are aware of the existence of these birds. They are, however, shot and are good to eat, and the sportsman who goes to the California marshes or to Southern Texas may add them to his bag.

Both these birds nest in trees. They are reported as not very wild or shy and as having been easily domesticated, when they associate with barn-yard fowls.

The black-bellied tree-duck feeds in corn-fields and is said to do much damage to the crop.

The fulvous tree-duck is found in Louisiana and Texas and breeds in the California marshes.

These birds run well and dive well and are difficult to secure when wounded. They are described in the appendix sufficiently for the sportsman who may shoot one to identify it.

XXV

SEA-DUCK SHOOTING

THE sea-ducks and the geese and brant, which are shot often from the same blind, are well protected by heavy plumage. The sportsman who has several guns may use the 10-gauge to advantage on these birds, but when the birds come to the decoys they are within the range of a 12-gauge, and when they do not come to the decoys they are more often out of range of any gun. At some of the clubs on the Chesapeake the 8-gauge is used to shoot at high-flying birds, but the use of guns larger than the 10-gauge is prohibited now in many States, and many others have laws prohibiting the use of all guns "excepting those fired from the shoulder in the ordinary manner." The laws prohibiting the use of guns larger than the 10 are more accurate, since the strength of men varies and an athletic sportsman might swing a much larger gun than the 8, provided it be a single barrel. A uniform law prohibiting the use of all guns larger than 10 would be satisfactory. I would be willing to see all guns larger than 12 prohibited, since a strong-shooting 12 will kill enough ducks in a day to exceed the bag limit allowed on many preserves and provided by law in many States.

It was formerly the fashion to shoot very large shot

at ducks and geese, but the shot used to-day is smaller. Nos. 6 to 4 for ducks and 4 to 2 for brant and geese are best. The smaller shot makes a better pattern and the chances for striking the game in a vital place are increased. From $3\frac{1}{4}$ to $3\frac{1}{2}$ drams of powder is used in the 12 gauge, and as much more as the gun will burn to advantage in the 10. This may be ascertained by firing the gun over snow, when the unburned powder can be seen after the discharge. I prefer No. 5 or 6 shot to No. 4 for sea-ducks and often shoot No. 7 at the river ducks, and have done good work with 8 early in the autumn when the shots were at close range.

Sea-duck shooting calls for warm flannels, heavy corduroy, and water-proofs, since the weather is often extremely cold and windy and the sportsman must face the storms of snow and sleet. Both clothes and hat must resemble the marsh grass in color. By no means wear a black hat or coat. Suits are for sale in the stores made entirely of the marsh grass.

There are four principal methods of capturing sea-fowl: (1) shooting over decoys from the shore; (2) shooting over decoys from batteries or sink-boxes on the water; (3) point shooting or flight shooting at passing birds, and (4) shooting in a line of boats on the open water. To these may be added the tolling of the birds with small dogs, an interesting method of pursuit practised on the Chesapeake and perhaps elsewhere.

Sailing after brant and ducks is another method used on some of the bays of Long Island and elsewhere, but this has been found to drive the birds away.

In shooting over decoys the start is made quite early in the morning, often long before daylight. The sportsman, accompanied by a local gunner or bay-man, sails away in the dark to the point selected for his ambush. Many decoys (each attached by a long string to a weight, often a half brick or scrap of iron) are stowed away in the boat. These wooden counterfeits are painted to represent the varieties which frequent the bay—canvas-backs, red-heads, scaups or black-heads, ruddy-ducks, widgeons, buffle-heads and others, and often mergansers. A few geese and brant decoys are in the outfit to be used to allure the passing geese or brant. When the objects of pursuit are geese or brant only, a larger flock of these decoys is carried, and often a lot of live birds, both ducks and geese, are used as decoys.

It is always a cold and often a stormy voyage down the bay, and the heaviest coat and a rain-coat over all will be found necessary to keep out the wind and cold. As the boat proceeds flocks of water-fowl may be heard arising from the water or passing overhead on rushing, whistling wings. When the place selected for a blind (usually a point or bar where the ducks are feeding) is reached, the blind is hastily constructed, provided it has not been made before, and the decoys are set out on the water, within easy range of the guns. The best blind is a box sunk in the sand or mud, with some seaweed or sedge, or whatever is near, scattered about, and even over the sportsman after he has extended himself in the box. Blinds are often made of seaweeds, grass, rushes, reeds, and bushes, and when they are so erected above the ground, it is well to

make them some days before the shooting begins, in order that the birds may become accustomed to them.

When sea-duck shooting it is most important to know what the birds are doing, or more accurately (since the decision as to where the blind is to be placed is often made in the dark) to know what the birds will be doing when daylight comes. The old salts who have spent their lives on the bay are not only good weather prophets, but good duck prophets as well. First of all the wind must be considered and a decision reached as to what the wind will be during the morning flight. Ducks, it must be remembered, do not frequent a windward shore. It having been determined that the wind will be in a certain direction, the various desirable points for a blind are considered, and the one most likely is selected. The ducks, for reasons of their own, will be seen "using," as it is termed, certain points or waters in preference to others which appear equally as good, and it is to the point where the bay-man has seen the birds (when the wind is off shore) that he will turn his prow.

The city sportsman who places himself in the hands of a local bay-man will hardly fail to have good shooting. It is well, however, for him to know the "whys and wherefores," to be able to sail his own boat and to estimate for himself what the ducks will be doing, for the knowledge of such things contributes largely to the making of a duck-shooter. The sportsman who knows where to place his decoys will often enjoy very good shooting and return to the cabin, hotel, or club to meet another who has not shot a bird, for the simple reason

that the latter did not know where to place his blind. A place which affords excellent shooting to-day may be worthless to-morrow, the wind having shifted. Ducks, too, are easily driven away from a given point by much shooting, and the place where many ducks are killed for several days in succession will be readily surrendered by an old hand to a novice. It is more important to know what the ducks are doing than it is to shoot well, for without the ducks one cannot shoot at all. A bay-man or an old duck shooter will often take a run about the bay to see what places the birds are using and to "locate" them, as it is termed, and time so consumed is well spent. An amusing reference to this practice appears in a law prohibiting Sunday shooting in North Carolina, which provides that "it shall be unlawful to sail, row, or propel a boat over Currituck Sound on the Lord's day for the purpose of *locating* wild fowl for a future day." This law, as I said, writing recently for *The Century*, may be regarded as the high-water mark of game legislation. It would seem necessary for the sportsman sailing the waters of Currituck on the Lord's day to close his eyes.

In many of the States it is now unlawful to shoot at ducks in the night season before "sunrise or after sundown" as the statutes read. This is as it should be, and the shooting of ducks on Sunday is also prohibited. In North Carolina, where by the way are to be found the finest grounds on the Eastern Coast for sea-ducks, it is unlawful for any person to leave any landing or anchorage before sunrise in the morning for the purpose of hunting wild-fowl or to put decoys into the water before sunrise. This law in many places would

sadly interfere with a good morning's shooting, since the shooting is best in the hour just after sunrise, and, when the blind is some distance from the house, the time consumed in going to it is the time when the shooting should be done. The first few hours of the morning and the last few hours of daylight are the best for duck shooting. The birds are then flying about and feeding and are allured by the decoys. The flight will continue longer on wild, windy, stormy days. On still warm days there is often a poor flight in the morning, which ceases at an early hour, and throughout the rest of the day until just before sundown not a bird will be seen in the air. At such times the sportsmen may be observed standing up in their blinds and looking at the rafts of ducks which float quietly on the water far out of reach of the guns.

When a flock of ducks observes the decoys they will often turn and head straight toward them, but usually circle about before alighting. As the birds come near it is of the utmost importance to remain absolutely motionless. The ducks have sharp eyes and will surely see the slightest move on the part of the sportsman and instantly be gone. Should the concealment be only partial when the birds are discovered approaching the blinds do not try to better it, but remain absolutely still. The fact that the ducks have headed toward the decoys indicates they have not seen the shooter, but if he lower his head or make any other move in the endeavor to better his concealment the birds will certainly escape.

When the ducks are well up to the decoys, and not before, it is time to shoot. The first shot is an easy

one since the birds are flying slowly and have spread their tails as a brake, and with lowered feet are flapping to alight. At the report of the gun, however, the ducks spring high in the air and are soon under full headway. The second shot is often missed by reason of under shooting. The gun should be aimed well over the rising birds, and far in advance of them, if they are going off to right or left. It was formerly the practice to aim at the flock when the birds were closely huddled together, in the hope of killing a number at a shot, but such is not the better way. The sportsman should select a bird for each barrel and try to kill it instantly—"clean," the gunners say. The dead birds are easily recovered, the wounded, unfortunately, often get away. In shooting into the flock many birds besides those killed will receive a part of the charge and, wounded, get away.

In North Dakota and other States where the legal bag limit is twenty-five birds or less per diem, two or three double shots at the hovering flocks will put an end to the day's sport, so that it is no longer to the sportsman's interest to take the pot-shots in the air or on the water.

A retrieving dog is always used. The best dog for this purpose is the Chesapeake Bay dog—a strong water-dog, able to stand the roughest weather and the icy waters of the bay, and to find the birds in the heaviest sedge. Such dogs are owned by sportsmen who shoot on the Chesapeake, and at the clubs at Currituck, and they may be found here and there throughout the West. The dog is trained to remain motionless in the blind until ordered to retrieve. He will

often detect the birds at great distances and indicate their presence by a glance of the eye.

Ducks which are passing the blind at a distance without seeing the decoys may have their attention directed to them by tossing a hat in the air, or by raising one foot high up from the blind or battery and quickly lowering it. The motion may be repeated two or three times, but when the birds turn on no account repeat it. Their eyes are now on the decoys and they will surely detect the hat or boot if they are shown again. An old market gunner with whom I shot ducks many seasons on the Shinnecock Bay taught me how to raise a foot above the side of a battery, and explained that the passing birds, attracted by the motion, believed, no doubt, the foot was a duck rising on end as they sometimes do when on the water, and the deception was the more complete since the motion appeared in the centre of the flock of decoys. I often exhibited my foot to the passing scaups and red-heads and saw them wheel directly for the decoys. When the birds are discovered passing at a long distance the foot may be raised quite high and several times in quick succession, but when the flock is passing near raise the foot but once and not very high from the water. I have seen the ducks return after having passed the battery when a raised foot attracted their attention.

A writer for a sportsman's magazine published in San Francisco, says the newly painted decoys are not so good as the older and duller ones. There is much truth in this, no doubt. Certain it is that highly painted and varnished decoys which shine brightly in

the sun will not attract the birds. The painting should always have a dull finish.

Shooting over decoys, with all its hardships, is splendid sport. When the ducks come in quick succession one does not feel the cold. For my part, as I have said, I prefer the shooting over dogs, but I have had many a good day, both on salt water and fresh, shooting sea-ducks and river-ducks over the decoys.

The method of shooting ducks from batteries is familiar to those who shot some years ago at Currituck, or later on the Long Island bays. At Currituck it is now unlawful for non-residents to use the battery. Its use is barred absolutely in many other States, but the influence of the market gunners, it is said, has been sufficient to prevent the passage of such legislation in New York. I have had many good days in the batteries when I killed many ducks and thoroughly enjoyed the shooting, but I now believe the use of batteries should everywhere be prohibited. The battery may be briefly described as a water-tight box, large enough to hold the shooter lying down, with a wide rim which floats on the water. The box is made to sink to the rim by placing weights about its edge. The battery with one hundred or more decoys is carried on a sail-boat to the feeding-ground of the ducks, often far out on the open water, and when the sportsman has taken his place in it, the bay-man, who has put out the decoys, sails away to a distance, usually to leeward, and picks up the ducks as they are killed and drift toward him.* Any large flocks which may be

* If it be windy and there is danger of the battery sinking, the attendant will sail to windward in order to be able to return quickly.

on the bay are put up by the bay-man sailing down upon them, and these as they fly about are attracted to the decoys. The objection to this form of sport is, of course, that it drives the birds from their feeding grounds, besides being very destructive. Immense numbers of ducks have been shot from a battery in a day.

Point shooting is at passing birds. As they travel from one feeding ground to another the ducks are required often to pass near or over certain points where the shooting is at times excellent. The shooting is more difficult than shooting over decoys, since the shots are usually at long range and fired at birds under full headway. To estimate correctly the rate of speed and the distance of a passing duck, requires much practice, and a good shot is he who can often send his load of shot far enough in advance to meet the swiftly moving mark. Shoot yards, not feet, ahead of the fastest birds when passing at long range. Each shot is different and must have its own estimate. Practice alone will make a good pass-shooter. Do not be afraid of shooting too far in advance of the birds. The shooting in the line of boats and the tolling with small dogs, will be described in connection with the birds so taken.

In California and the Gulf States the sea-duck shooter has finer weather, and in many places, particularly in Louisiana, Texas, and Southern California the shooting is still very good indeed.

XXVI

THE CANVAS-BACK

FAMOUS is the canvas-back. Many sportsmen regard him as first of all the water-fowl. Epicures never tire of praising him. One of the largest of the ducks, he is also very handsome. The head is a dark chestnut red. The back is white, marked with narrow waved black lines, which give it the light-gray appearance which suggested the name. The bill and breast are black. Size, beauty, and table qualities are here combined, and the canvas-back is rightly named "the king of ducks."

Although classified as a sea-duck, this bird is found throughout North America, from the Atlantic to the Pacific. I found the canvas-backs abundant in North Dakota, where they arrive early in the autumn and remain until the ponds and lakes are frozen over. Herbert Job recently found many nests of these birds on the same ground in the spring. Bendire found it breeding in Oregon. It no doubt breeds at all suitable places from Dakota to the Pacific Coast. Most of these ducks, however, go farther north upon their spring migration.

The canvas-back is distinctly an American bird. No other ducks resemble it excepting the red-head duck and its analogue the pochard of Europe. Red-heads

have often been sold in the markets as canvas-backs, but the birds are easily distinguished. The bill of the red-head is blue, not black. Its head is round, not angular like that of the canvas-back. The back of the red-head is much darker than that of the canvas-back.

A few years ago these birds came in immense numbers to the waters of the Chesapeake Bay and the other bays and sounds of the Atlantic Coast, and the shooting grounds brought high rentals. Excessive shooting, however, by sportsmen and the market gunners, has so reduced the number of the birds as to make the shooting-grounds of the Chesapeake far less valuable, and at many points there is to-day but little sport or none at all. The ducks were nowhere more persecuted than on the waters of this bay, all the points being held by clubs. They were assailed from every side by land, and the market gunners with huge guns fired broadsides into them as they slept upon the water. This shooting was kept up from the moment of the birds' arrival in the fall until the ice put an end to the slaughter; and in the spring the shooting ended only when the last bird unshot had flown away. The high prices (often several dollars) which the birds commanded in the markets stimulated the market gunners to great activity, and the wonder is that a bird remains. So abundant were the canvas-backs in former years that slaves were fed with them, and contracts are said to be in existence which contain provisions against such feeding to slaves whose services were rented.

These birds came until quite recently in great numbers to the bays and ponds about the great lakes.

There are records at the clubs of famous bags, but here, as on the Atlantic Coast, they no longer come as formerly. In looking over the game register at one of the Lake Erie clubs, I observed that in former years over one thousand canvas-backs were often killed, but more recently the total for the year has been less than one hundred birds. Farther west, however, at some of the preserves in Wisconsin and Minnesota, and on many lakes and ponds, these splendid birds still come in better numbers, and they were reported not long ago in certain places on the Pacific Coast as abundant as they ever were on the Chesapeake Bay.

Many States have now good laws for their protection, which limit the bag, prohibit market shooting, the sale of game, the use of big guns and batteries and all blinds on the feeding grounds; and if the shooting in the spring is prohibited, the sportsmen in the West, at least, will no doubt continue to enjoy good shooting.

The food of the canvas-backs consists largely of a water plant popularly termed wild celery (*valesneria*) This food imparts a peculiarly delicious flavor to their flesh. On the Pacific Coast they feed upon a bulbous plant which the Indians call wapato (*sapellaria variabilis*) which renders their flesh equally delicious. It is only when they can obtain the wild celery or the wapato that the birds are worthy of high praise. The red-head and widgeon, when feeding on the same food have a similar flavor; but all of these birds, when their food consists of small marine animals, have the same sedgy or fishy taste and are no more desirable as food than many other sea-fowl. As a general proposition, I may here observe that the so called river-ducks

are better food than the sea-fowl or divers, as usually they are free from all fishy taste, since their food is largely corn, wild rice, and acorns.

I have eaten the canvas-backs from the Chesapeake, on the ground where they are supposed to be cooked and served the best, and by no means dispute their table qualities, but the wood-duck fed on acorns and the mallards fed on corn and wild rice are their equal, and I am inclined to believe, with many sportsmen of my acquaintance and the great Audubon besides, that the little blue-wing teal is their superior. I prefer, however, the shooting of all game to the eating, and am prepared to leave such questions to the epicures.

The latter have always insisted that the canvas-backs from the Chesapeake are the best, and there is an amusing story of an Ohio senator, who argued with some Eastern friends that the Western canvas-backs were just as good. Secretly he procured some birds from the Ohio marshes and served them at a dinner to which his friends were invited. The birds, well cooked and served, were excellent, and during the repast the Eastern epicures often asked their host to admit their superiority. This he did, much to his amusement, of course, and later to their discomfiture.

At the Lake Erie clubs and on many other Western shooting grounds the canvas-backs and the mallards and other dabblers may be shot the same day. Not on the same ground, however. The canvas-backs will be found diving in the deeper water, the mallards dabbling in the shallow ponds near by.

I have regarded the canvas-backs as the wilder birds, possibly because I have shot them only when

they were the least abundant, but Mr. Cumming, a San Francisco sportsman, writing recently for a magazine, says the mallards are far more wary in the tule marshes of his State. "Should the sportsman," he observes, "have found the mallards and returned with fifty birds, he is entitled to a hat-raise and bow from his fellow sportsmen, but if he has that number of the dull-witted cans., no such obeisance should be accorded him. The canvas-backs must be classed as the most foolish duck that frequent these waters. When they are found in a feeding-pond where their favorite food is plentiful, they are easy game, provided the man behind the gun keeps out of sight. After the birds have been 'jumped' out of the pond, he has only to place out two or three dozen decoys and the birds will soon work their way back in pairs or in small flocks, sometimes circling around a little to see if the coast is clear, but generally dropping quietly among the decoys.

"When they ascertain to their satisfaction that appearances seem favorable for an uninterrupted feed their heads drop into an easy position, indicating security, and they soon disappear beneath the surface. As they arrive from time to time in flocks and a number are under water, the hunter should open fire at those upon the surface, and as the others come up treat them to another barrel."

This may do for one who cares to shoot tame birds on the water, but when the legal limit to the bag (fifty birds per diem) is easily reached, most sportsmen prefer the shooting on the wing.

The same writer says: "Many consider the mallard

superior to all others as a choice table morsel, but hunters and duck critics differ. My experience suggests that the sprig is equally delicious if not a better bird." It will be noticed that the canvas-back is not mentioned.

Canvas-backs are usually shot over decoys. A number of the counterfeits are placed out within easy range of the blind, and to these the birds come readily when they have not been much shot at; but they soon learn not only to avoid a blind but to fly high in crossing over points, and on the Eastern waters they are as wild and shy as any duck that flies and far different from the "dull-witted cans." of California.

Before putting out the decoys the birds are driven away without shooting at them, and from time to time they return singly or in small numbers, or perhaps in flocks. As they sail slowly up to the decoys, or hover over them preparatory to alighting, they are easy marks, but as they spring from the shot of the first barrel they are far more difficult, and he who makes a "double" has reason to be proud of his achievement.

The sportsman makes an early start for canvas-backs and should have his decoys in the water by daylight. The shooting is best in the early hours, and again late in the afternoon, when the second flight begins. During the middle of the day he may well desert his blind and try the neighboring marshes with his setters for the snipe. In Oregon, a Mongolian pheasant is often added to the bag.

Canvas-backs are also shot from points as they fly over from one feeding ground to another. This sport is more difficult; the shots are usually at long range and at swiftly flying marks, since the birds are under



SHOOTING CANYS IN LAKES AT RAGGED ISLAND

full headway as they pass, and go from sixty to ninety miles an hour, and (before the wind) it may be faster.

In Oregon the canvas-backs are highly prized. In a recent article, "Duck-shooting along the Columbia," Mr. J. B. Thompson says: "It was the way of the duck hunters to ignore all other ducks, mallards, teal, widgeon, sprigs, and to confine their shooting entirely to canvas-backs. In a good year, and most years were good, it was not difficult to kill all one could carry. Of late years—since about 1894 to be more exact—canvas-backs are not as abundant nor as good eating; the cause being generally attributed, no doubt correctly, to the almost total disappearance of their favorite food the wapato. In an unfortunate moment some impulse, not wholly for good, prompted a certain United States fish commissioner to place in the haunts of the canvas-backs the lowly and inglorious carp. Why this was done no one seems to have ascertained. It could not have been because good fish were lacking, for the Columbia and its tributaries were full of the lordly Chinook salmon and other varieties of the same fish, and the smaller streams were alive with trout. At any rate the carp were brought in, and, like most things undesirable, they stayed and throve prodigiously, and from that time every green and growing thing on the feeding grounds of the ducks began to disappear, until finally, about six years ago, few wapato and very little else which might be classed as food could be found there. The high water of 1894 may have aided the carp by depositing silt and sand over these lakes and ponds. The food being gone the canvas went also; and the few that are shot now are poor and flavorless."

The same writer says the canvas-backs were formerly as abundant on the lakes and ponds near the Columbia River as they ever were on the waters of Chesapeake Bay and their flesh was as fine.

Present indications, he adds, promise better things, however; for it is believed that the wapato was not totally exterminated and that with care and the destruction of the carp the canvas-back may again flourish as in years past.

The same results followed the introduction of the carp into Ohio waters. A short time ago the superintendent of the Winous Point Club informed me that the carp had become a positive nuisance. They destroyed the wild rice and other vegetation in the marshes to such an extent that the ducks had little left to feed on where food was formerly abundant. Some fishermen, he said, recently caught eight tons of carp in one haul of a net, and a catch of six tons was not unusual. The fish were offered for sale in Port Clinton, but the market being overstocked, they were taken to Sandusky on a tug, and there being no sale for them there they were finally disposed of to a fertilizing establishment at \$2.00 per ton. This matter of the carp and their destruction of the marshes is of the utmost importance to the many duck clubs and owners of preserves, and in fact to all who shoot ducks. The carp are said to destroy the plants by rooting, causing them to fall and die. It is most unfortunate that the carp, like the sparrows, seem to have come to stay. The Department of Agriculture now has the authority and will no doubt prevent the further introduction of such pests.

The canvas-backs feed by diving for the wild celery or the wapato, and amusing accounts are given of the widgeon, which floats near by and when the canvas-back comes to the surface with a choice morsel quickly seizes and devours it.

The canvas-backs still come in goodly numbers to some of the preserves owned by the clubs at Currituck, N. C., and the shooting there is often very fine. The late President Harrison was the guest of the Ragged Island Club during his term of office, and enjoyed some good shooting.

When the sea-ducks are much shot at, especially on their feeding grounds, they will often desert the waters of the bay and spend the day far out upon the ocean. They return at night to feed. In North Carolina and Maryland and in Ohio, and perhaps elsewhere, certain days are set aside each week when all shooting is prohibited. At the clubs certain rest days are provided for by club rules, and some clubs in Oregon, Mr. Thompson says, allow but one day's shooting each week.

Canvas-backs, like antelope, have a great deal of curiosity, and they are brought within range of the gun by the use of a small dog, which is trained to run about on the beach and seek chips or small sticks tossed for him from the blind. The feeding ducks are soon attracted by the performance of the dog, and after observing him a short time, swim toward the shore, their interest seeming to increase as they approach, until finally they are within range. This method of capture is called tolling. Heavy guns and heavy loads are used to shoot these fowls. Where rest days are

provided for the ducks they are always less wild and less suspicious, and the shooting is accordingly much better.

Canvas-backs are still shot from batteries or sink-boxes, but since my shooting from these contrivances has been at scaups—the black-heads—and the shooting is the same, I defer the description of this method of pursuit, saying only here, as I shall say again later, that this form of sport should everywhere be prohibited, as it is now in many States.

XXVII

THE RED-HEAD

THE gray back of the red-head duck is similar but darker than that of the canvas-back. The color of the head is the same or nearly so, the dark chestnut-red being brighter in this species than in the canvas-back. The shape of the two heads and the color of the bills, as I have observed, render the identification easy, and when their food is the same as the latter birds, they are excellent on the table. Their flesh often has a fishy or sedgy taste, and then may be said to resemble that of the scaups or black-heads more than the canvas-backs.

I have shot red-heads on the waters of Long Island and as far west as Dakota, and do not regard these birds as equal to the mallards, teal, or wood duck. In the West, like that of many of the shore-birds, their flesh is usually better than that of the birds shot on Long Island Sound or the bays along the Atlantic Coast, for the reason that it has not the sedgy or fishy taste so often observed in salt-water birds. As a rule, I think the Western sportsmen are inclined to stand up for their ducks, as it were, and insist that they are superior to the sea-ducks. My early education was acquired, however, on the waters of the Shinnecock Bay and on Long Island Sound, and I was prepared to defend even the merganser or shell-drake as food

birds; but I am satisfied, as a general proposition, that the ducks that feed on corn and wheat, and the wild-rice or wild-oats and acorns, are superior to those which find their food in the salt marshes and bays near the ocean. The same rule obtains with reference to the black-breasted plover and many of the shore-birds, as we shall observe later.

The red-heads arrive from the South in March usually, sometimes earlier if the weather is suitable, and when not much shot at remain until late in the spring. Many of them would no doubt breed in New York State if given a chance, and they no doubt will be before long, since the sentiment against shooting wild-fowl in the spring is spreading rapidly. Mr. Job found them recently breeding with the canvas-backs and ruddy-ducks in good numbers about the lakes of North Dakota.

In the autumn the red-heads return so soon as the weather turns cold, usually in November, but earlier if the Northern waters should freeze over. Large numbers still come to the bays and along the Atlantic Coast, and they are a very common duck during their migration across the Middle and Western States to the Rocky Mountains. Large numbers are killed annually at the many duck clubs about the Great Lakes, and I believe there are more red-heads killed during the flight at the St. Clair flats in Michigan than any other ducks. The flight was hardly on when I left the flats, but the local gunners were all engaged in painting red-head decoys, and a few days later these ducks were so abundant in the Detroit markets that many could not be used, and, the weather turning warm, they were

thrown away. Here, as elsewhere, they come in greatly diminished numbers each year, and unless the spring shooting, the shooting of the large guns, and the use of batteries is stopped as well as forbidden, it will not be long before the red-head is a rare bird, or will only be seen in the museum of natural history. The Canadian Club own a vast preserve on the east side of the flats, and since the shooting there begins later, and is conducted under proper regulations, the birds, fortunately, have there a harbor of refuge which will do much toward their preservation. The clubs near Toledo and Sandusky also are a benefit to the ducks, but at some of these the shooting has been excessive. The following, which I copied from the club register at Winous Point, near Port Clinton, Ohio, shows that the red-heads are by no means as abundant as in former years:

Red-Heads	Red-Heads
1881..... 1415	1891..... 31
1882..... 1987	1892..... 510
1883..... 1699	1893..... 216
1884..... 927	1894..... 40
1885..... 1058	1895..... 5
1886..... 366	1896..... 207
1887..... 21	1897..... 68
1888..... 56	1898..... 4
1889..... 16	1899..... 19
1890..... 63	1900..... 1

Excessive shooting at this club I am sure was not the only reason for the diminution of the game. But few guns visit the club each season, and although there

is here no bag limit, the shooting has not been sufficient to cause the red-heads so nearly to disappear. The failure of their food, its destruction by the carp, and the excessive shooting by the market gunners at St. Clair, on the north, and in the Southern States during the winter, have no doubt combined to bring about the unfortunate result shown by the club register. Singular it is, if true, as I am informed, that the clubs of the Lake Erie region are opposed to laws prohibiting spring shooting. Many ducks would no doubt remain to breed on their preserves were there no guns fired at them in the spring.

The shooting of the red-heads is similar to that of the canvas-backs. They come to the same decoys and present about the same marks. I have shot them from a sail-boat on Long Island Sound, and have shot them in the West, where they were sufficiently abundant to need no decoys. I once killed quite a number of these birds shooting on a pass between two lakes, in North Dakota, and their flight was extremely rapid. They passed quite close to my ambush, however, since it was well placed at a point where I observed these ducks and many others passing in both directions. Thousands which had been driven out at our approach, were returning to one of the lakes, and although I had no decoys and had been shooting too much at the grouse to do well with the swifter marks, I had no trouble in making a good bag. The red-heads, like the canvas-backs, are great divers, and it is difficult on that account to secure wounded birds when they fall in the water. When a bird falls with his head up, or is evidently only wounded, it is a matter

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of economy as well as humanity to give him the second barrel before he strikes the water. I found it difficult to recover wounded birds from a sail-boat. As we approached them swimming on the water, they went under before they could be picked up, and appeared again a long way off. The best retrievers often fail to secure them. The red-heads are not abundant on the Pacific Coast. Mr. Thompson, in a recent article, "Duck Shooting Along the Columbia," says the red-head, along that stream, is very rare. I found the red-heads this spring extremely abundant at Back Bay, Currituck, far more abundant than any other duck.

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XXVIII

THE SCAUP-DUCKS

THE scaup-ducks, known to sportsmen in different parts of the country as black-heads, blue-bills, or broad-bills, come to the United States usually in October and are found not only on both coasts but throughout the interior. There are two distinct species, exactly alike except in size; one known as the big black-head, big broad- or blue-bill, and the other as the little black-head, blue-bill or broad-bill. The latter is also called creek broad-bill or blue-bill. These two ducks are often confused, with the result that one is often reported abundant in one locality when as a matter of fact it is the other. They were formerly supposed to be the same, but the ornithologists are now agreed that the two species are as distinct as the greater and lesser yellow-leg tattlers, the king rail and the Virginia rail, and some other birds which are exactly alike in pattern and color, but which are not related. Elliot is of the opinion that the larger black-heads are more often found about the coasts and the smaller birds in the interior. Both have black heads, as the name would suggest. The fore-parts of the back, lower-back, and rump are black. The middle part of the back and sides is white, undulated with black lines similar to those of the red-head, which

gives the back and sides the gray appearance common to both canvas-backs and red-heads. The head of the larger variety is said to have green reflections; that of the smaller bird is said to have purple reflections, but iridescent color reflections are usually changeable and, as Elliot says, feathers which reflect green in one light may be purple in another. From the sportsman's point of view the birds are the same, excepting as to size. Both birds come nicely to decoys, fly with great rapidity, and are excellent food when feeding on water grass; but not so palatable when the diet is unfavorable.

These ducks, like the canvas-backs and red-heads, are expert divers, and, like the others, use their wings under water to propel themselves when in search of food, or seeking to escape when wounded.

The flocks of the smaller scaup are often larger, much larger, in fact, than those of the big black-heads, which usually contain from six or less, to ten or twelve birds. Herbert Job recently observed the scaups, big and little, in pairs on the Dakota lakes in the spring, and secured a photograph of the nest of the smaller bird. These birds, like the other sea-fowl, are well protected with feathers and require hard hitting to bring them down. I used to use No. 3 or 4 shot for all sea-ducks, but have later used No. 5 or 6 with better results.

In addition to the big and little black-heads, there is another bird very similar to the little scaup, which is known as the ring-neck duck. This duck is often called the shuffler, tufted duck, and ring-neck black duck, and has a wide distribution throughout North

America. It is often found in company and confounded with the little scaup. It is nowhere a common species. It has been known to nest in Maine, Wisconsin, and Minnesota. It is seen more often inland than on the coast, and has the same habits and rapid flight as the little black-head, from which it is distinguished by the ring more or less distinct about its neck. The ring-neck goes in small flocks and is probably more abundant in the Mississippi valley than elsewhere. It comes readily to the decoys. These three ducks may be shot from the same blind, over the same decoys, big or little.

The scaups are fairly abundant on the bays or lagoons on the south side of Long Island, which are separated from the sea by long narrow beaches, familiar to those who know the Atlantic Coast. Here they are still shot from the battery over large flocks of a hundred or more decoys.

I began shooting scaups when a student at New Haven, and usually spent the spring vacations in their company, shooting with a market gunner who knew the bay and the ducks, and who owned a good battery and a large lot of well-painted decoys.

Long before daybreak this fine old salt tapped on my door (I made his cabin my home) and announced that breakfast was ready, and the savory odor of the meal came with the light from his lantern through the crack beneath the door. Having breakfasted, we went out into the night, and embarking in his sail-boat, which carried the battery and decoys, we slipped quietly down the creek which led to the bay. We expected to beat his neighbor, another professional

gunner, to the best stand for the morning's shooting. As we went out on the bay we heard the thump, thump of an oar far away in the darkness, and my bayman said: "That's Lane going out—ahead of us. Perhaps he is rigged for geese," he added. Lane had a flock of live decoys. We, too, used our oar to aid the sail. Just before daybreak we reached the place determined upon, and found it unoccupied. The battery was placed in the water, the decoys were arranged about it within close range, and my gunner sailed away to leave me lying below the surface of the bay in the box with its wide rim floating on the water. As the first light came in the east I could see the ducks, mostly scaups and red-heads, flying swiftly across the dim gray light. Soon there was a rush of wings quite close to my head as a flock of black-heads swung in to the decoys. Sitting up I fired two barrels at the shadowy forms, but nothing struck the water, and the noisy whistling of wings was soon lost in the darkness.

As the sun came up the ducks came rapidly, sometimes one or two, more often a flock. I shot at every one, with but poor success. The cramped position, the hasty shot from a sitting position, were new to me and strange, and it was some time before I began to kill the ducks.

A single bird coming head on was about to settle to the decoys, when I fired at him at close range, and he struck the water dead. Shortly afterward I made a double from a flock, and with growing confidence my shooting improved. I soon had a goodly lot of scaups showing black and white upon the waves as they drifted with the breeze. Meanwhile the bayman, who

had been cruising far enough away not to alarm the ducks, approached and gathered in the slain. Standing in close to the battery, he remarked that I was "learnin'," and after explaining how I might attract a passing flock by putting one foot up and down quickly in the air, and giving other good advice, he sailed away to disturb a flock which was feeding on the bay. The flight was good for several hours, and then the birds stopped coming. The bayman came and took me from the box. We sailed away to eat our luncheon on the shore. The pipes were lighted, and basking in the sunlight on a dune, I listened to the stories of the sea and ducks.

Much good advice was given. I did not lead the birds enough, he said. Shot too low at rising marks was too quick at the second pair, not quick enough at the passing flocks. The single bird was far too close and badly torn. One double was done in style. The morning's work had evidently been closely watched, and nothing had escaped the observation of my guide. When the birds began to fly again he asked if he should shoot a bit to show me how. The birds fared badly at his hands. He seldom missed a shot. Soon, with more advice, again he left me in the box. Birds came. I missed them as before. But some there were which came to stay, and at evening when the decoys were taken up the bag was pronounced a good one—some thirty birds or more, including the half-dozen shot by my instructor to show me how. The light in the tall white tower was reflected with the stars from the wavelets in the bay. We slipped along before the breeze.

A clam-chowder, a merganser-stew, which I shall refer to again, a roasted scaup, were all served steaming hot, and having dined I heard more stories of the sea and shore. Meantime the wind freshened to a gale and howled about the cabin, as it only can when passing over sea or plain.

“The black-ducks will be in the bay to-morrow,” said my host—“too rough for them outside. Red-heads and scaups will also move about. Will call you early—and good-night.”

XXIX

THE GOLDEN-EYE AND OTHER SEA-DUCKS

THE golden-eye, often called the whistler, is well known from the loud whistling noise made by the wings. It is a very handsome duck, but nowhere so common as many other varieties. Like most of the other ducks the whistler goes to the far North to nest and returns to the United States in the autumn, where it is widely distributed throughout the country. The golden-eye builds its nest in a hole in a tree, somewhere near a lake or stream. There are usually six or eight eggs. It flies with great rapidity and goes through the branches like a ruffed-grouse. It does not come readily to decoys and more often not at all.

The golden-eye is generally seen singly, in pairs, or in small flocks.

About the coast the golden-eye feeds on shell-fish, and is therefore not very good to eat, but in the interior it feeds on grasses and roots and is better. It is often seen with the little broad-bill and the buffle-head on bays and ponds and is a wonderful diver, going under usually before the shot reaches it. The game record of the Winous Point Club (Sandusky marshes) would indicate that it is there a rare bird. In years when there were thousands of ducks killed, the record shows but one or two of the golden-eye ducks and often none. I found a few of these birds

on the grounds now owned by the English Lake Club on the Kankakee in Indiana, and once made a very good shot at one when mallard shooting. I heard the whistler coming from behind my back and well overhead. He was going so rapidly that I only had time to make a snap-shot at him, but he fell dead in the river.

The Indians call it a spirit duck. On the Yukon they stuff the skin to make a toy for the children.

The Indians of the Frazer valley tell a story of two men in one of their tribes who had a dispute as to how the whistler made the noise, one claiming it was produced by the wings, the other that it was vocal or made through the nostrils. Others joined in the controversy, which resulted in a majority of the warriors being killed without settling the question. Allan Brooks, quoted in "Birds that Hunt and are Hunted," is my authority for this story.

Barrow's golden-eye is the Western variety of this bird, but they are so much alike in appearance and habits, as to be one and the same from the sportsman's point of view.

THE BUFFLE-HEAD.

The buffle-head is another duck which nests in trees and is an expert diver. It is one of the smallest of the ducks, being not much larger than the blue-wing teal. It flies rapidly and alights "by striking the water at an angle with a splash and sliding along on it." It is a cold-weather duck and remains in the United States until the water freezes over. I have shot a few of

these ducks on the Ohio River, on the Kankakee and at other places in Indiana and always found their flesh palatable. Where mallards, spoon-bills, sprig-tails and other large, choice ducks are abundant the little butter-balls, as they are called, are often allowed to go unmolested. One day when shooting at English Lake, Indiana, we discovered a flock of seven of these birds feeding in a little bay, and as my punter moved the boat slowly toward them, they flew out in the direction of the lake, passing at long range, and I brought down three with my first barrel and two with the second, much to the delight of my attendant. He had been celebrating the good shots by taking a drink from my flask, and as he seemed to think all of my shots worthy of notice the flask had been emptied, and he proceeded to do honor to this occasion by drinking five times from a stone jug of his own, which he had brought for an emergency, and he soon became quite hilarious. We were fortunately near the house, and I secured a punter with more ability and less enthusiasm for the remaining days of my visit.

The buffle-head is distinctly a North American species, and is found from the Arctic Sea to the Gulf of Mexico, migrating like the other ducks in spring and fall. It is in some locations called the dipper, but this term is, I believe, more often applied to the hell-diver.

THE RUDDY-DUCK.

The ruddy-duck is the last of the sea-ducks which is worthy of the sportsman's gun. It is a small duck, intermediate in size between the green-winged and the

cinnamon-teal. The green-wing is the smallest of all the ducks, its length being about fourteen and a half inches. The length of the ruddy-duck is sixteen inches, and that of the cinnamon-teal seventeen inches.

The ruddy-duck is generally dispersed throughout North America and breeds throughout its range. There are often many eggs in a nest. One was found containing twenty, but Elliot says these must have been deposited by two females.

Herbert Job recently found the ruddy-duck breeding in the same locality with the canvas-backs and red-heads in North Dakota, and procured photographs of the nests, one of which contained fifteen eggs. It seemed almost impossible, he says, in writing about this nest, that such a little bird as the ruddy-duck should have laid that pile of eggs several times its own weight in less than three weeks.

It will not be long before all the ducks and geese cease to breed anywhere within the United States. Before it is too late the State of Dakota or the National Government should, as I have observed elsewhere, establish a park or refuge, to include some of the small lakes and sloughs where the wild fowl now nest. Such parks would be far more interesting than any zoological garden where beasts and birds are confined in ill-smelling cages, and where they too often present a picture of unhappiness. The results of such a park would be to keep the other lakes and streams of the State supplied with birds for many years, and would do much to save entire families of birds, which the eminent ornithologist Elliot and many others believe will entirely vanish from the North American

Continent. States like Ohio, which are vainly striving to introduce the pheasants of China by means of expensive hatcheries, are blissfully unmindful of the fact that at less expense they might save their own water-fowl, birds of far more economic value, by State preserves to include the worthless marsh-lands and the great canal reservoirs.

The ruddy-duck likes all waters, salt and fresh, and is still fairly abundant at times on the Chesapeake Bay and the Southern sounds, where it was neglected in favor of the big canvas-backs, red-heads, and scaups until recently when it became fashionable to eat ruddy-ducks, and they now bring good prices in the markets where it is legal to sell them.

The ruddy has large feet and swims swiftly; is an expert diver and often sinks out of sight without diving, like the hell-diver. It swims about on the water with its tail elevated, and presents a ludicrous appearance which is unmistakable. It flies in good-sized flocks, very swiftly, like the teal, and comes to the decoys with a rush, dropping into the water with a splash. The ruddy-ducks are often called boobies. On many of the bays they are shot from a line of skiffs which approach them and force them to fly out over or past them. The statute of North Carolina provides that it shall be unlawful to skiff or ring-shoot any boobies between November 10 and February 15.

XXX

OLD-SQUAWS, COOTS, AND EIDERS

HAVING disposed of the desirable sea-ducks or divers, those which are good to eat, there remain a number of birds which are often taken by sportsmen in an arduous but picturesque manner from boats anchored far out upon the sea. Since ducks fly best in stormy weather, this sport is attended with much hardship and often danger, and although I have tried it many times, it was always for the reason that there was nothing better within the limit of my time. The old-squaw, the coots, and the eiders are in the habit of remaining on the waves some distance from the shore, and since they are expert divers, it is almost impossible to get near them with a boat. As they are moving about, however, they often follow certain lines of flight, and a number of sportsmen going out together, each in his own craft, form a line of boats over which the ducks must pass, or make a long detour to avoid so doing. The boats are placed so that a duck passing midway between two of them will be just within the range of both.

This sport, as can well be imagined, calls for skilful shooting, since the anchored boats are tossed by the waves and the ducks are under full headway when they pass, and see the danger underneath.

Daniel Webster was fond of this sport, and was often seen in an open boat off the Massachusetts coast in the vicinity of his home at Marshfield, shooting in the line.

A short distance from New Haven, to the east, quite near the town of Branford, Conn., there is a group of small islands in the sound. These are called the Thimble Islands, and on one of them there was, in the writer's college days, a tavern where sportsmen who desired to shoot coots and old-squaws were entertained. Here these ducks came in goodly numbers in the fall, and there were usually enough gunners present on this island to form a line of boats. Each had his number or place in the line, and those who shot from its outer end were often far from shore.

Starting early in the morning of a stormy day, I pulled a heavy boat to my place far out upon the line, and soon the ducks began to come. I tried a shot at the first comers just as a large wave struck the boat, and came quite near going overboard. The shot went nowhere near the ducks, which were soon out of sight. Others came in quick succession, and at the hands of that best instructor, experience, I learned enough sometimes to bring one down. A wounded bird I found impossible to secure. Progress with the heavy boat was slow, and the birds were fast not only on the surface but below. Good shots were made by sportsmen in the neighboring boats: old hands who could preserve an even balance and often make a double. The exhibition of good shooting down the line was well worth coming far to see.

Sometimes the waves increased, the wind ran high,

and water came aboard the boats. A neighbor shouts: "We can't stand it much longer out here," and soon the anchors all are up; the boats are pulling madly for the shore. Mountains of water with snowy crests of foam come rushing on and toss the heavy craft about. A mile an hour, perhaps, and then the boats pull one by one into more quiet water under shelter of the island. The gunners gather about the office stove to tell the stories of the day.

As for the game, it certainly is not worth the work. It must be worth the fun. The birds have a strong sedgy or fishy taste which parboiling with onions will not remove. They are, too, covered with heavy feathers which protect them from the shot, and make the preparation of them for the table arduous. Elliot says of one of these—the white-winged scoter: "Its feathers also, besides being strong and thick, seem as if they were inserted through the skin and clinched on the other side, and the labor of picking a few individuals of this coat is no joke, usually resulting in sore fingers." His reference to the flesh is that it is "abominable."

Returning to New Haven from my first expedition to the Thimble Islands (entirely unaware of the riveted feathers and table qualities referred to), I presented a few of these delicacies to a college professor who with his niece, a handsome and lovely girl, had placed me under many obligations by their kindness to a "freshman." The next time I called upon my friends I was thanked for the birds, but there was an absence of all enthusiasm in the thanks, and when I came to know the game, the wretched thought occurred to me that they had probably tried to eat the ducks

without onions and had probably maimed or lost a valued servant-girl besides.

THE SURF-SCOTER

The surf-scooter is somewhat smaller than a mallard, being nineteen inches long. It is appropriately dressed in black and has a white spot, triangular in shape, on its forehead. Why nature has placed this ray of purity on the bird's head I never could imagine. Its dispersion is general. Its dispossession is difficult. By this is meant it is hard to dispose of a second time to those who have tried it; and the same may be said of the other coots.

This bird is often called "spectacled coot," "bay coot," and has other local names by which it may possibly deceive the unwary.

THE WHITE-WINGED SCOTER

Another bird dressed entirely in black, excepting the speculum on the wing and a spot under the eyes, which are white. This bird is also known as the white-eye and white-winged coot, and has the same habits and tastes as the others. It is a well-known bird along the coasts and on inland lakes. Its range extends from the Arctic Sea to Florida and Mexico.

THE AMERICAN SCOTER

This bird is entirely black. It is widely distributed from the Arctic Ocean south to New Jersey, on the

Eastern coast and to southern California on the Pacific side. The bird may be identified and avoided by the bill, which is bright orange on the basal half. It is often called black coot, whistling coot, and has other local names.

THE VELVET SCOTER

The velvet scoter is given in the check-list as an old-world bird, which has, fortunately, only been found on our shores a few times. Its general appearance is velvety black; speculum white.

THE OLD-SQUAW

This bird is often called "Old South Southerly," from the supposed resemblance between the sounds it utters and those words. I am, however, not very good at discovering such resemblances, and I doubt if the average observer would call the bird by that name without instruction. There are, however, other instances of birds being named from their notes—the kill-deer plover and the Bob-white partridge are examples of this style of nomenclature. This duck is also often called the long-tailed duck, from its long tail, but the latter term is more often applied to the fresh-water sprigtail duck.

The old-squaw inhabits North America from the Arctic Sea south to the Ohio River; specimens have been seen farther south. I obtained one on the Kankakee, in Indiana. The old-squaw does not much frequent the western coast south of Alaska. Like the coots, this bird is fond of the sea, and is often seen in

flocks off the shore. It is a swift flyer, expert diver, a fish eater, and a tough and undesirable bird for the table. The evolutions of this bird in the air are said to be beautiful in the spring-time, when the males chase the females about, and all dive from the air into the water, and come up again one after the other, there sometimes being a number of males in the chase. In summer the old-squaw is almost dirty black.

THE HARLEQUIN DUCK

This is a rare North American duck, so named from its fantastic markings. It is extremely rare, and of no importance to sportsmen. Even that industrious ornithologist, Elliot, says he never saw one alive.

THE EIDERS

The eiders are noted for their down. They are all great divers, and subsist on food which gives them the fishy taste common to the coots. Lieutenant McConnell, of the revenue cutter *Bear*, in a magazine article, speaks of the eiderduck as "an excellent table bird." They may be to an arctic appetite, but such is not their reputation on our coasts. The varieties are known as the common eider; the American eider, which replaces the common eider on a large portion of the Atlantic Coast; the king eider, and the Pacific eider. The Pacific eider is distinctly an Alaskan bird. The king eider is also an arctic bird, but comes occasionally as far south as New Jersey; but it is not abundant. The king eider is the largest of these birds, being almost an inch longer than

the mallard. The spectacled eider is another Alaskan bird, and has never appeared south of that territory.

Stellars duck, the last on the list of sea-ducks, is given as a straggler to our coasts, found only on the coasts of Behring Sea.

XXXI

RIVER-DUCK SHOOTING

MUCH that has been said about sea-duck shooting applies to the shooting of the shoal-water ducks or dabblers. These birds seldom frequent the salt bays and lagoons, and are nowhere as abundant in the salt marshes as they are in those where the wild-rice and fresh-water reeds and rushes grow. The river-ducks are shot from blinds on the shore, and in some places from batteries placed in the open water; but the batteries are more often used for sea-fowl, and, as I have observed, their use is in most places now prohibited. River-ducks are also shot from points or passes as they fly from one feeding-ground to another, in the same way that sea-ducks are taken.

It is most important in connection with this method of capture to remember that the ducks have certain well-defined lines of flight, and that the sportsman's blind must be under one of these. Observe well what the ducks are doing on a given morning. The lines travelled are not always the same. The wind, the weather, or much shooting, may change the course, and an observant gunner will soon change his blind so as to be within range of the flight and not remain on a given pass simply because the ducks flew over it some other day.

Jumping ducks, as it is termed is a favorite method

of capturing river-ducks, and since I prefer pursuit to ambush, I like this form of sport the best.

In many of the fresh-water marshes there is sufficient water for the ducks to swim and for a light boat to move about through the tall reeds, rushes, and wild-rice. The sportsman having taken his place in the boat is pushed rapidly along by a punter, who propels the boat with a long pole. Many of the ducks which are scattered about in the reeds arise within range, and there is often opportunity for a double shot. The shots, I should say, from the moving boat, are more difficult than many of those from ambush over the decoys, but since the birds are rising from the water and are not under full headway when the gun is fired, the shots are less difficult than those at travelling ducks when the shooting is from points or passes. This method of pursuit reminds one of rail-shooting, and I have often shot both the large and the smaller rails when engaged in jumping ducks.

Much here depends upon the punter. He should know well how to handle the boat, to send it swiftly through the reeds, to steady it for the shot; and should be able to mark closely the dead and wounded birds. He should be familiar with the marshes, know where the boat can go, and where and when the ducks are most abundant.

Such men I have shot with many days on the marshes of the Kankakee, and such there are at the duck clubs about Sandusky Bay, the St. Clair flats, and on the marshes about the Illinois, and in fact, everywhere I have been. Their services are of course greatly in demand at the duck clubs, where they

receive good wages, and many of them are employed throughout the year.

Sportsmen sometimes propel their own boats by means of a sculling-oar or pole, but few men can manage a boat and shoot well at the same time. The California market gunners use a light-draught skiff half decked over and covered with grass, so as to resemble closely the marsh. In this boat the gunners move quietly about and shoot the ducks asleep upon the mud-banks.

Mr. Cumming says: "Long experience has taught these men that speed is a useful auxiliary to science in getting upon their watchful and cautious game, and they find it necessary to adopt novel methods of getting about, one of which is that of lying at full length upon their backs in the bottom of the boat, totally concealed from outside view, while working a peculiarly bent oar in a greased scull-hole, that drives the blind-boat ahead quietly and rapidly. The whole outfit resembles a detached portion of the marsh floating naturally down with the tide. In this manner, before the State law was passed prohibiting the shooting of more than fifty birds in a day, the pot-hunters would each day, in season or out of season, fill their murderous machines to the gunwales, thereby making such a glut in the markets that large quantities of fine fowl spoiled before they could be sold."

At some of the clubs blinds are constructed on the open water by driving long poles or young trees into the muddy bottom in such shape as to form a blind which will hold a boat. This is open at one end or has a brush door, to permit the entrance of the boat, and

here the shooter remains concealed until the birds come to his decoys. Such blinds are prohibited in some States, since they tend to drive the ducks from the feeding grounds.

Many laws have been passed within the past few years regulating this and other field sports and defining the methods of capture ; these are amended from time to time, and the sportsman who goes to shoot in another State should ascertain the rules and regulations, since game laws in many States now mean something.

River ducks are often shot, where they are abundant, by sportsmen who walk quietly along the banks of streams or sloughs and shoot the ducks as they arise from the water. In this way I began my duck-shooting on the small rivers in Ohio, and I have since shot many dabbling ducks of all varieties from an Indian pony moving along the banks. I have also used the pony instead of the boat to jump the ducks in shallow lakes, and am inclined to think this rambling about on horseback and shooting from the saddle the best of all duck-shooting.

XXXII

THE MALLARD

THERE are in the check-list of the American Ornithological Union fourteen shoal-water or dabbling ducks. It has been my good fortune to shoot them all, excepting one or two extra limital species, strays from the old world, which are included in the list of the ornithologists because they have been taken on our shores. These are of no importance, however, to the sportsman, since they are not common enough to furnish sport. They are often referred to as accidental visitors.

I should be inclined to say that the mallard was the best river or fresh-water wild-duck in the world, if that honor did not belong to the little blue-wing teal. All fresh-water ducks are, however, excellent for the table and afford magnificent sport. So, like the ornithologist who describes one duck after another as the finest food, we are in danger of saying many of these so-called river-ducks are the best. In Dakota we used to have a mallard for dinner and a blue-wing teal for dessert. Perhaps it would be well to describe the mallard as the best all-around duck, the staple, as it were, and let the little blue-wing keep the place accorded to it as something special, just a trifle better if that were possible than the best. Comparing the

flesh of the mallard and the teal, it may be said that the mallard is so fine that one sometimes wonders if the blue-wing can possibly be better.

The behavior of the two birds in the field is equally good, they both come nicely to the decoys, both fly swiftly and test the skill of the sportsman. The mallard is a larger and somewhat easier mark. The teal is one of the most difficult marks in feathers. I have had occasion to carry a large lot of mallards, when the wagon or ambulance did not find me in the marsh or when the boat was necessarily left a long distance from the blind, and, to say the least, the transportation was laborious. The reader will find a reference to the portable character of the teal in the chapter on those splendid birds.

The mallard is immediately identified, when we say he is the green-headed duck of the barn-yards. The latter are descended from the mallards, and in England the mallards are often referred to as the stock ducks. The wild bird is, of course, far more beautiful. His colors are brighter and he is alert and graceful on the water and can fly swiftly through the air, even in the timber.

The mallard is distributed throughout the northern portion of both hemispheres, and seems entirely to have escaped the ornithological variety makers. There are thus no fractional species, the (a), (b), and (c) of the ornithologists. The mallard, however, has shown some ambition to create a new species or perhaps to puzzle his ornithological biographers, as he did Audubon, by an occasional intimacy with other fresh-water ducks, which have resulted in some hybrid birds of most

singular appearance. I have seen one of these with a mallard's head and the long tail of the sprig-tail duck, and others have been discovered.

The mallard is a fine, large duck, twenty-two inches in length, both sexes being the same size. It is by far the most abundant of all the water-fowl, and when the sportsman goes to shoot ducks on fresh-water they are usually mallards, the other varieties being more often accessories to a day's mallard shooting.

The majority of these birds, like the other water-fowl, go north to nest, but many remain in the United States, and were the spring shooting prohibited and the parks or refuges which I have so often urged established, enough of these beautiful fowl would be saved to preserve the race, and the overflow to the open streams and lakes, and especially to the properly regulated shooting preserves of the country, would continue to furnish sport and food for all time to come.

Herbert Job found the mallards breeding in North Dakota in June, and secured an excellent photograph of the nest. I saw many young mallards on the ponds and small lakes in the Devil's Lake region of that State, which were unable to fly in August and must of course have been bred there. On the reservation of the Cut Head Sioux there are hundreds of small lakes, and the Cheyenne River, like a big winding slough, forms its southern boundary. Here is one of the best places in the country for a refuge for the ducks, and where the experiment of so preserving them might be tried at small expense.

I found the mallards tremendously abundant in the

marshes about the Kankakee, and used to shoot them there, going out from George Green's, a famous resort on English Lake. These grounds are now owned by the English Lake Club, composed largely of Chicago gentlemen. Upon my first visit to English Lake, I shot many mallards, but did not do so well as others, since I wandered far and wide, cruising with a punter through the drowned forests, and out into the sloughs and ponds of the vast marshes of wild-rice, and often when in the blind the mallards got the best of me, sailing swiftly by while I sat and gazed upon the wondrous beauties of the scene. Without much difficulty, however, I could easily put several dozen mallards in the boat, and wood-duck, teal, red-heads, spoon-bills, and all the other ducks often contributed to the bag. The day of my arrival, Colonel Harris, a well-known sportsman from Cincinnati, came in with over fifty mallards in his boat, and next day did as well. Other boats, with men I did not know, came loaded to the guards and some would barely float. One day, as we entered the great north marsh, our coming disturbed the ducks and there must have been millions of mallards in the air. The whole great marsh seemed to rise up with a roar and the water dropping from the ducks looked like heavy rain. The sun shone brightly on the sea of emerald heads, so numerous as to almost obscure the sky, and I sat dumfounded and amazed.

“Shoot, man! Shoot!” the punter cried, and, when I fired, a single green-head climbed higher at the first discharge and at the second shot came down. The wary birds all went off and settled in some ponds

where the punter said they were safe from harm by reason of the deep mud and shallow water.

Thousands of mallards are killed each year on the marshes about the Illinois River, and in the Southern swamps. They are still extremely abundant at times in the ponds of Minnesota, Wisconsin, and the Dakotas, and in the tule marshes of California, but any one who observes these birds at all will notice the rapid diminution year by year. I know of places where I used to have good shooting where the appearance of a single duck to-day would cause surprise. An army of guns would no doubt at once take the field to circumvent it.

The records at the Lake Erie group of clubs show that the mallards have always been the most common variety, excepting possibly the teal and the canvas-back. The record of the Winous Point Club shows:

	Canvas-backs.	Mallards.	Blue-Wing Teal.
1880	665	1,319	2,110
1885	237	943	1,019
1890	697	394	603
1895	72	218	21
1900	1	232	0

The score for 1900 is unimportant, since the Ohio Legislature (influenced it has been said by the irate gunners who object to the exclusive game preserve) passed a law prohibiting the shooting of all ducks until November 10th. The marshes were frozen over two days later, when the ducks all left, except the blue-wing teal, and these, of course, had gone a month or more before.

Mr. Thompson, of Oregon, in a recent article in *Outing*, says: "The mallard (*Anas boschas*) is perhaps the favorite of all duck-hunters in the far West as well as elsewhere. It sometimes nests along the Columbia, though ordinarily it goes farther north. Like the teal it has its favorite feeding haunts morning and evening, and its favorite resting places, usually during the middle of the day, in the middle of some large slough far out of range. To some extent, however, its movements can be controlled by feeding."

The most familiar method of shooting mallards is over decoys. The best places are shallow, muddy, and somewhat inaccessible ponds in the vast marshes of wild-rice. Mr. Denny, of Pittsburgh, recently had little difficulty in making a bag of one hundred and four mallards in such a pond, "the little mud hole," on the preserve of the Ottawa Club in Northern Ohio. The bag was made during the morning flight.

Upon approaching the place where the decoys are to be set out, the ducks which are feeding in the pond will all fly out. The sportsman of experience will not shoot them then, no matter how tempting the shot may be. He knows that ducks can reason well and that if they are shot at as they depart, they will be less inclined to return again, and a shot at such a time is a notice of the danger to all the ducks which have been feeding in the pond or slough.

After all the ducks have gone without unnecessary alarm, the decoys are quickly placed, usually before a blind already made, and at the club preserves at places where the ducks have been baited with corn and wheat by the gamekeepers long before the season opens.

Soon the mallards, under the impression that their alarm was false, begin to return singly or in pairs, often in good-sized flocks, and as they come the eager birds, seeing the well-made counterfeits on the water, sail over the pond head up to the wind, and spreading out their tails to break their speed, drop with flapping wings to the water below. As they settle down within easy range they are not hard to hit, but at the shot mallards "climb" rapidly, and the novice must remember to shoot high and forward if he would bring them down. It is an exciting moment when a flock of these large green-heads comes with a rush of wings to settle before the blind. The good shot will take them as they come and go, and not shoot them on the water. At times some travelling, or trading, birds will test the skill of the sportsman far more than those which notice the decoys. That talented English writer, Stuart-Wortley, says he once fired aiming the length of a church ahead of passing flock to see the hindmost one fall dead.

Mallards are very fond of acorns, and in the overflow fine shooting is often had about the Western rivers in the woods. I have shot them among the oaks from a boat concealed by brush and branches, and have jumped them on a cruise about the marshes and the sloughs.

When the birds resort to the open water for their noon-time siesta they should not be disturbed. Batteries are sometimes anchored on such grounds and on feeding grounds as well, but their use is most destructive and will drive the unslain birds away.

Robert Roosevelt said some years ago: "In station-

ing a battery, that imitation coffin—which should be a veritable one, if justice had its way, to every man who enters it—and in lying prone in it through the cold days of winter, the market-man may find his pecuniary profit, but the gentleman can receive no pleasure; while the permanent injury inflicted by driving away the ducks from their feeding grounds and making them timorous of stopping at all in waters from any and all portions of which unforeseen foes may arise, is ten times as great as the temporary advantage gained; and as for calling that sport which is merely the wearisome endurance of cold and tedium to obtain game that might be killed more handsomely, and in the long run more abundantly by other methods, is an entire misapplication of the word.”

In shooting mallards a dog is quite necessary—a retriever of course. The water-spaniel, or the Chesapeake Bay dogs, are the best. A wounded mallard will, without a dog, most often escape by skulking and hiding in the grass. A good retriever should lie down in the boat or blind and remain motionless until ordered to retrieve. I have often observed the bright eye of one of these intelligent animals observing ducks when they were far away and before I had discovered them. They take great delight in the sport and endure much hardship and are deserving of the best of care; a dog-coat or blanket when the day is done, another to lie upon when they come in from the freezing water.

Their fine noses enable them to follow and secure the birds which hide in the grass. They swim rapidly and overtake the wounded on the open water. They

are something of a nuisance as they come dripping wet into a boat and proceed to shake the icy water all over one, but it has been well said it is unreasonable to ask the "devoted but shivering creature that he should remain standing in the freezing water or upon the damp sedge."

The mallards have been reported as very abundant in California within the past year or two. In a San Francisco paper it was stated that the farmers in Glenn County were employing men to herd them off their sprouting grain, and were slaughtering vast numbers of the birds, which were allowed to stay on the ground where they fell. Such abundance will be of short duration, however, if history repeats itself, as on this point it always has.

The sportsman who goes to shoot mallards (and the other ducks as well) must make an early start. He is often on the ground at the break of day. There is compensation always for early rising in the scene. The gorgeous panorama which attends the change from star-lit night to the broad light of day is best seen in the marshes and at sea.

The sleepy-heads who linger in the town are unaware of the pictures which the mallard shooter sees. These are always charming, ever new, sometimes simple, but often sublime. The weather effects which a painter knows are seen best in the vast marshes where the mallards dwell.

The attendant will conduct the sportsman to the most likely places, but I have often enjoyed the trip alone or in company with a friend who also punted his own boat and set his own decoys. I have thoroughly

enjoyed a trip about the marshes, wandering here and there through the innumerable water streets and lanes before the season opened and without a gun. Last season, while I was sketching in the marshes of the Ottawa preserve, the mallards were quite tame. At one little pond a punter preceded me and scattered the corn for their daily meal, and shortly after he had gone the ducks began to return. I had an excellent opportunity to study them and figure out imaginary shots. First came a wary black- or dusky-duck, over-eager for the well-known bait. With a rush of wings he barely missed my head and dropped into the pond. There he sat immovable, with his head held high, looking, listening, determined to detect a danger if any should be there. I was but partially concealed, but the corduroy was well in tone with the faded flags and reeds and I remained as motionless as the wary duck but a few feet away. Soon his partners came, a little band followed by the mallards singly, in small companies and in flocks, all circling once about and heading to the wind. When at full speed down went the brakes, their widely spreading tails, and tipping sideways, flapping, they dropped into the pond. All, like the black-duck, sat "attention" and I dared not wink an eye. The tempting grain was all about, and at last the ducks did the preening which seems necessary to precede the meal and soon were rapidly devouring the grain. A friend at another pond had cameras instead of guns, and when we met at night he had thoroughly enjoyed the day. A hawk had pounced upon one of his decoys, and sinking his talons well into the wood had carried it a long way off. A snap-shot told

the tale. I was convinced by my experience of that day that the entire absence of motion in the shooter was more important than perfect concealment. After I had observed the ducks for a long time (they were very near) I made the slightest movement of one hand, when with loud quacks they all sprang into the air and in an instant were out of sight.

Upon one occasion, when shooting with the Indian agent at the Cut Head Sioux agency, we found the mallards at evening flying from one small lake to another, and just as the sun went down we began to shoot. It was a cloudy evening, and the sun set red behind large blue-black masses of cloud, so that it was too dark to shoot shortly after the sun disappeared. After a dozen or more shots a tight shell stopped my shooting for a time, but we recovered in the dark some thirty mallards, which, however, by no means represented the number slain. The birds flew swiftly, and at times I believe an expert ball player could have done well with a bat.

Mallards in the West often resort to the corn-fields, and they may be shot on a pass as they travel into and out of the fields, but the better way is to seek the pond in the corn-fields, or puddle of water they are using and shoot them over the decoys.

I have shot mallards from horseback, riding along the banks of a Western stream, and jumping them from the water and the grouse from the shore. I have shot them in the shallow Western lakes, by wading just outside the tall band of sedge which grew about the shore. I have shot them from a boat and pass, but the most mallards will be secured when shooting over decoys.

A duck-call is often used, which may be purchased in the stores. The punter will often better imitate the quack. A good call will aid to bring the wild birds down. A bad one, however, is worse than none.

I once bought one which proved a fine source of amusement, but not of profit. At every quack the ducks jumped a thousand feet or more straight up into the air.

I used occasionally to spring it on a friend to see if I could improve his shooting.

XXXIII

THE DUSKY DUCKS

THE dusky duck, or black-duck, often called black-mallard in the West, the *Canard noir* of Louisiana, is found throughout Eastern North America from Labrador to Florida, where it is replaced by a similar bird called by the ornithologists the mottled-duck. These birds are so much alike that the difference may be regarded as local or climatic, and for the sportsman they are one and the same. One who shoots in Florida may notice that the mottled-duck differs from his dusky relation in having the cheeks streaked with brown instead of being plain buff, and the speculum or spot of metallic color on the wings is said to be purple instead of green. As already observed, however, these metallic colors are often interchangeable in different lights, and unless the sportsman's attention was specially called to them he would not notice the differences.

The black-duck closely resembles the mallard in its habits, and the quack of the one might be mistaken for that of the other. The quack of the green-head of the barn-yard is the quack of the mallard and dusky duck, and the tame ducks make excellent decoys. The dusky ducks are quite common in the Mississippi River valley, and are said to breed from Maine to Texas. I saw a fine flock in captivity not long ago

which were captured by the barber at the Star Island hotel on the St. Clair flats, and the birds, though full-grown, were quite tame and not alarmed at my approach. There are usually eight or ten eggs. I have shot the black-ducks on the Atlantic Coast, and as far west as Wisconsin. I often killed a few of them when mallard shooting on the marshes about the Kankakee in Indiana.

Their flight is rapid, very similar to that of the mallard, and the quickly repeated wing beats are the same.

I learned two lessons shooting at these swiftly flying marks. Two travelling birds, one flying several yards behind the other, passed my boat on the open water of Fox Lake, and shooting well ahead of the leading bird I saw his mate fall dead. My second lesson occurred a moment later when I went head foremost into the icy waters of the lake. The light duck-boat was drifting gently with the breeze. I stood up to load a muzzle-loading gun. A tuft of grass, or other small obstruction, stopped the treacherous craft, it tipped a time or two and I was out. I tried several times to get in over the side and as often filled the little boat with water, and had to bail it out, but finally climbed the end and was quickly at the oars. My friend, whose gun was booming a mile away, fortunately had the proper remedy for cold, and leaving him I pulled strongly for the shore. Before the club-house fire I soon was warm again, and ready to return to the shooting. Great care is necessary in standing in frail boats.

The flesh of the black mallard is usually not so good as that of the other river-ducks. The duck does not

come as readily to the decoys. It is a wild and wary bird, one of the most suspicious of all the water-fowl, always on the look-out for an enemy and said to have a keen scent which warns it from the danger lurking in the blind. If ducks detect an enemy by means of the sense of smell, smoking in the blinds should be given up. The dusky duck may be said to resemble the female mallard, but is darker.

Black-ducks are somewhat nocturnal in their habits, and often when disturbed in the morning fly far out on the open water, where they spend the day and return again at night to feed.

One evening, after an unsuccessful day with the scaups and red-heads, my bayman at Shinnecock asked if I would remain out on the beach at night and shoot the black-ducks as they came in to feed. The bay had been full of them in the morning, but they all took wing when far out of range and retired to the ocean. The moon was full. As it arose it seemed light enough to shoot by. We sailed away for the outer beach and concealed ourselves without difficulty. Shortly the ducks began to come. We heard the nasal quack—quack—quack at intervals as they flew in from the ocean long before we could see them. As they passed swiftly over the beach they were in sight for a moment and again disappeared in the half-light on the bay. The shooting was extremely difficult. I could only see the birds as they passed between me and the moon. After several misses a snap-shot caught a single bird just as he passed *en silhouette* before the silver orb, and down he fell upon the beach. A few more birds were shot, but many shells were wasted in the dark.

And then the bayman came with a heavy bunch of ducks which he had shot. It was getting late. We sailed away.

Night shooting is now prohibited by law in many States, as it should be. The temptation, however, is great, I must admit, to shoot at these birds after dark, when they fly away early in the morning, arising out of range, and do not return until after sundown. Mr. Tallett, however, President of the Jefferson County (N. Y.) Sportsman's Association, referring to the fact that some sportsmen still contend that night is the proper time to shoot black-ducks, asserting that they are night feeders and can only be shot successfully at that time, says: "My experience has been that in no way can the black-duck be driven from a favorite feeding-place quicker than by night shooting, and I believe that if night shooting were allowed in this county a large part of the birds we now have would be driven away." Mr. Tallett further says: "Upon the stopping of the spring shooting in this county the black-ducks remained to breed, and those sportsmen who know the habits of the black-duck and its extreme wariness can judge of the number we have when I say that during the first week over one hundred and fifty black-ducks were killed, and all were killed in broad daylight, as the shooting after sunset is prohibited in this county."

Mr. Tallett, referring to spring shooting, says: "This letter is not written for the purpose of inducing the rest of the State to stop the spring shooting of wild-fowl. It is a matter of indifference to us. If you do not want the birds, drive them up here. We know a good thing when we have it."

Black-ducks have begun to breed in large numbers on the grounds of two of the Currituck clubs which prohibit shooting after January 25th, and the editor of *Outing* has well said: "It lies in the power of these wealthy organizations to do vast good and go far toward repairing the harm done by negligent legislatures and recreant executives."

XXXIV

THE TEAL

THE teal are the smallest of the wild-fowl. There are three varieties common to North America—the blue-winged teal, the green-winged teal, and the cinnamon-teal, all named from their color-markings, the two former from the wings, the latter from the prevailing color of the bird, which is a rich brown or cinnamon. They are all very handsome on the water and remarkably graceful in the air. They fly with great rapidity, usually in flocks, and as they all wheel together their color-markings show brightly in the sun. They are all splendid table-birds, and the blue-wing, as I have observed, is superior to the far-famed canvas-back.

We are inclined, however, to enthusiastic praise of that which pleases at the time. On one occasion, when shooting with some officers of the army, it turned very cold and began to snow early in the afternoon, and, since the ducks were not flying well, I left my blind without waiting for the ambulance which came out each evening to transport us to the camp. Upon my arrival there I found that the post surgeon had preceded me, and was cooking a green-wing teal, which was extremely fat from feeding on wild-rice. He insisted upon my eating it, and proceeded to prepare

another for himself. The bird was cooked to perfection, and I had no hesitation in pronouncing it the best duck I ever ate. The blue-wing, however, never has the sedge-taste which the green-wing has sometimes, and may fairly be regarded as the best duck that flies.

A distinguished ornithological writer in a recent work thus said: "I know of no better bird for the table than a blue-winged teal fattened upon wild-rice." But in the same book, speaking of the canvas-back, he says: "There is no duck save, perhaps, the red-head, that can equal this splendid species in the delicate quality of its flesh." And again: "The flesh of the red-head, when it has been feeding upon wild celery and such dainty food, for tenderness and flavor is excelled by no other duck."

Although somewhat conflicting, we find here high praise for all.

The blue-wings and green-wings are found from the Atlantic to the Pacific Coast, the former more abundant in the Eastern and Central States, and especially so in the Mississippi valley. The cinnamon-teal is distinctly a Western bird, although it has been known to go as far eastward as Florida. Such occurrences, as Elliot says, are rare and are to be regarded in the same light as would be the appearance of some European species. The blue-winged teal are among the first ducks to arrive from the North, and usually come to the Northern States as early as September. They do not like the cold, and are among the first to leave for the South. Many of the teal remain to nest in the marshes of the Northern States whenever they are not

too much persecuted. In the South, upon the club preserves at Currituck, where spring shooting has recently been stopped, Mr. Whitney, of *Outing*, says teal have begun to breed in large numbers. A special law prohibiting spring shooting in Jefferson County, New York, was followed by the same result. These facts sufficiently demonstrate the benefits to be derived from club rules and State laws prohibiting the shooting of wild-fowl in the spring. Not only teal but wood-ducks, mallard, and dusky ducks nested in Jefferson County.

I have always regarded the teal as among the best of all the game birds. They fly with wonderful rapidity, present most difficult marks, and are more easily transported than the larger birds.

I have had fine sport with teal on many marshes, have shot them over decoys, jumped them in the wild-rice, shot them when flying over points or passes, followed them along the banks of many rivers and prairie sloughs, both on foot and in the saddle, and have made large bags by riding an Indian pony through the tall reeds and rushes of Western lakes and ponds.

Several birds are often killed at a shot, since teal fly quite close together and often "bunch" when the sportsman rises from his ambush. Upon one occasion, when on the march with an army outfit in the valley of the Tongue River, Montana, I dropped behind the command and followed the windings of the stream, in the hope of shooting a few ducks for dinner. While fording the stream my pony stopped to drink just as he entered it and a large flock of teal soon appeared flying some thirty feet above the water.

Remaining absolutely motionless until the birds were directly opposite, I quickly raised the gun, and as the birds crowded closely together fired and brought down seven with my two barrels. This was my only shot that afternoon, and when I reached our camp the captain said he had heard my gun, and asked if I had his duck for dinner. I promptly produced a teal from the pocket of my coat, and as the others of our mess (there were six in all) came up, I presented a teal to each, taking one at a time from my coat, much to their amusement and satisfaction, since we had for several days been dining on venison and bacon.

I doubt if I could have done as well with any other ducks except the other teal, and am sure I could not have carried them in the pocket of my coat. Like other ducks the teal are easier marks when shot over decoys, but when under full headway, passing singly or in small numbers over points, I can imagine no marks more difficult. The sportsman accustomed to shooting over dogs will miss many shots at teal before he bags a single bird.

After some days' shooting at the sharp-tailed grouse, I went one day to a famous duck-pass in North Dakota, when the teal were flying from the Devil's Lake to a smaller one to breakfast. As soon as I had made my blind, they began to come singly and in pairs, sometimes three or four together or a small flock, and although they came in quick succession and the shooting was fast enough to heat the gun, I believe it was an hour or more before I killed a bird. I was almost in despair, when I fired at a passing flock, holding the gun a yard or more before the leading

birds, and at the report a single teal, some distance behind the others, fell dead upon the beach. I at once began shooting long distances ahead of the passing ducks, and before long I had a large bag of birds.

A few days afterward an officer from the garrison nearby, a good shot in the upland fields and woods, went with me to my duck-pass to shoot at teal. We made our blinds some two gun-shots apart and soon began to shoot. The birds came rapidly as before, and my friend gave them two barrels as they passed, but was entirely out of ammunition before he killed a bird. His orderly came to my blind for shells, and with them I sent a message to shoot three times as far ahead as he had been doing, and he soon was killing birds.

One morning, when shooting larger ducks, three green-wing teal passed my blind, flying just above the water, all in a row a yard or more apart. Aiming well ahead of the leading bird I saw my shot strike the water well behind the last, and of course they all escaped.

Teal spring from the ground or water with great rapidity and it is easy to miss them as they rise. I once saw a blue-wing on a small stream in Ohio, which was being chased about on the water by a flock of tame ducks, who scolded him and annoyed him until he finally went ashore on a mud bar at the lower end of a small island, overgrown with willows and much underbrush. Letting my boat drift until I made a landing at the upper end of the island, I quietly stalked the teal until within easy range, and after observing him for a time, stepped out from the cover of the trees, when he sprang into the air and I missed

him with both barrels, shooting no doubt far under him.

I found the cinnamon-teal feeding with great numbers of the green-wings on the Dakota ponds, and one small lake was always so full of teal that there was hardly room for more. I had read of many of these birds being killed at a single shot, and having noticed that the birds which used this pond when disturbed always went out over the same place on the beach, made arrangements to take my place quietly before daylight, where the birds would pass overhead, to see if I could make a record shot. My brother, with a repeating gun, approached the pond on the other side, and as soon as it was light enough to see opened fire on the immense flock, which arose from the water with a noise like a passing train and headed for my blind. Before the birds came in range, however, they all wheeled to the right and passed out over the beach far below me. I was perfectly concealed, but the teal no doubt had heard me when I went to my blind and were too wary to pass over me. Two gadwalls following on behind, took the usual course, and on these I made a double. My brother with his five shots took heavy toll from the flock. I have forgotten now just how many birds, but among the number was the handsome cinnamon. One day I found the teal and mallards feeding in a reedy pond quite near the Yellowstone, and riding about on the shallow water I shot them from the saddle. The birds were very tame and often flew but a short distance out over the prairie, and returned again to feed. The shooting was quite rapid, the shots were easy and I soon had a fine bag.

A soldier acted as my retriever. He had removed his shoes and was wading about leading his pony and picking up the birds, when we discovered some horse-men on a distant hill, evidently observing us. Thinking they were Indians, we stopped the shooting and beat a hasty retreat for camp. I shall never forget the appearance of the orderly with his ducks and his shoes in his hands as we galloped across the plain. It was a false alarm, however. The men were some of our own troopers who had gone out to shoot at larger game. It was too late, however, when we learned this to return to the ducks, and early next morning we moved our camp.

The green-wing teal are far more abundant on the Pacific Coast than the blue-wings. They come later and remain longer.

Mr. Thompson, writing of this sport in Oregon, says: "If teal are abundant and 'come' just right even an old canvas-back shooter after a good morning's sport at these small and beautiful birds, is almost ready to declare that there can be no finer sport. Of course, each season will not bring them in the same numbers, nor are they found everywhere. They seem to favor one locality more than another. Usually, however, it is possible with care and judicious feeding to draw them to a given point; at times they are very abundant, recalling the stories of years past in the waters of the South. At one small lake, one of the best places along the river for this kind of ducks, four hunters in one day, shooting morning and evening, made a record of more than four hundred of these birds. These were all killed on the wing."

The blue-wing teal are more common on the marshes of the Middle States, I believe, as far west as Illinois, Kansas, and Iowa. On the Sandusky marshes in Ohio, a club record shows each year more blue-wings are killed than green. In 1881, the totals for the season were blue-wings, 1,646, green-wings, 441; in 1885, blue-wings, 1,019, green-wings, 506; in 1890, blue-wings, 603, green-wings, 373; in 1895, blue-wings, 21, green-wings, 99; in 1899, blue-wings, 255, green-wings, 184. In Dakota and on the Pacific Coast these figures would be reversed.

Much that has been said as to the method of capture of the other ducks applies as well to teal. They come well to decoys, and they are shot in the same way over points. They are jumped in the wild rice and shot from a moving boat.

In the winter thousands of teal are shot in the rice-fields in the South, and they are probably nowhere more abundant than in Louisiana and Texas. Another teal, the European teal, is given in the check-list. This bird is, however, only an occasional visitor to our Eastern shores, and is seldom shot by sportsmen.

XXXV

THE WOOD-DUCK

THE wood-duck is the most beautiful duck in the world. Some years ago, in a magazine article, I expressed the opinion that this bird was more beautiful than the mandarin duck of China, and in Elliot's recent popular ornithological work this opinion is sustained.

In size the wood-duck is intermediate between the mallard and teal. Its head is dark green, reflecting purple and blue, and effectively marked with white lines. Its back is dark brown, the wing coverts are blue. Its breast a rich chestnut, dotted with white arrow-shaped marks. It has a handsome crest, and Linnæus well named it the bride (*Sponsa*). It has been suggested, however, that it is the groom that is beautiful. The female, as in most water-fowl, is not so handsome.

The wood-duck is known in many localities as the summer duck, since it remains and breeds in many of the States, and the migratory birds return first of all to the northern parts of the United States, where the shooting is best in August and September. It is designated also as the acorn duck, from its well-known fondness for acorns.

The flight of the wood-duck is swift and graceful,

and it goes through the trees with the speed and safety of the wood-grouse.

The summer ducks are found from Hudson's Bay to the Gulf, and are abundant in the Mississippi valley; but they are vanishing more rapidly than any of the other ducks in all parts of their range. I have referred to the bulletin of the Agricultural Department which predicts their extermination.

They were some years ago extremely abundant in September on the Sandusky marshes in Ohio, and about the Kankakee in Indiana, and the Illinois River in Illinois. I have often shot them over decoys and jumped them in the wild-rice. The game register at the Winous Point Club, near Sandusky, shows that hundreds of wood-ducks were killed formerly each season on that preserve, but the average for the past ten years has hardly been more than fifty birds per annum. I was informed that within the past year or two the wood-ducks were somewhat more abundant than they were five years ago, but the register does not show much of an increase.

At English Lake I shot them from a light boat, jumping them in the wild rice. The punter pushed the boat (which contained a revolving office-chair for the gunner) rapidly. The birds often arose at short range and presented easy marks. They were very abundant on the Kankakee at certain bends in the river, where they fed on acorns which dropped from the oaks into the water. A friend one day killed over seventy of these birds over decoys, and I often made fairly good scores shooting from a blind, but my fondness for moving about and exploring the marshes and

ponds for other ducks and a change of scene always prevented my making very large bags.

I found the wood-ducks abundant in the little lakes, sloughs, and marshes near Havana, Illinois, when the shooting was open; but all the good duck grounds in that vicinity are now owned by clubs, where I am afraid the shooting is often over-done.

The wood-duck is always a splendid table bird, and when it is fattened on wild rice and acorns is exceptionally fine. It is, however, too pretty to shoot. It is not a very wild duck, comes well to the decoys, and is shot as it flies, over passes, to the streams and ponds. I have shot them on small streams in the woods in Ohio when partridge shooting, and had little difficulty in approaching them within range as they swam about.

Many thousands are killed each season in the Southern States, and since they come first of all the ducks to the Northern waters, they receive the first fire of eager sportsmen in August and September, and the shooting is kept up as they move southward and until they have paired in the spring.

The wood-duck builds its nest in trees near the water, to which it carries the young before they are able to fly. An account appeared in *Forest and Stream* of these beautiful birds, and the golden-eyes, butter-balls, and mergansers being driven from a pond in the vicinity of which they nested, by the introduction of pickerel, which destroyed the young. The carp also, as I have said elsewhere, have done much to drive ducks away from the marshes by destroying the food.

XXXVI

OTHER RIVER DUCKS

THE sprig-tail, often called the pin-tail or spike-tail duck, is easily distinguished by the long slender tail, which suggested the name. It is found throughout North America, migrating like the others, from the North to the Gulf of Mexico, and arriving in the Northern States in September or October. It may be looked for shortly after the appearance of the wood-duck and the blue-winged teal.

Like the other ducks this duck is not so abundant as formerly, but many visit the Southern States each winter, and it is a common duck in the middle West and on the Pacific Coast.

In the spring the pin-tail is said to drum like the snipe, arising high in the air and then falling suddenly when a loud drumming noise is produced by the wings. This is a most remarkable performance, and the reader will find a further mention of it in the chapter on the snipe which I have seen when drumming.

The pin-tail is found in the same marshes with the mallards, and is often shot over decoys when mallard-shooting. It is one of the best table-ducks, its flesh being uniformly in fine condition.

Mr. Cumming, a San Francisco sportsman, writing recently for a Western magazine, says the sprig-tail

arrive in California about October 1st, and are there shot from blinds made on the banks of ponds or sloughs. The blinds are usually constructed of a wine cask or a large dry-goods box sunk in the ground and concealed by attaching tules or marsh grass to the top on the level with high water. The decoys are placed but a short distance from the blind. Mr. Cumming regards the "sprig" as the most wary of all the ducks, and says that they will circle round the pond several times beyond the reach of shot, especially if they have ever heard a gun. He says the sprig-tail is equally delicious, if not a little better than the mallard.

In the winter many of these birds are shot on the Southern sounds about the Atlantic Coast and in the marshes throughout the Mississippi valley to the Gulf. I have shot them in many places when shooting other ducks, but observed them more abundant in North Dakota than at other places I have visited. I often shot them on a pass between the lakes as they travelled back and forth, usually without the aid of decoys. They fly swiftly, but when they are shot and fall upon the water, they are easily recovered, since they cannot dive well. On land and in the marshes they skulk and hide with great skill, and are often lost without the aid of a retriever.

When the sportsman arises in his blind the pin-tails jump high in the air, and many shots are missed by shooting under them.

THE WIDGEON

The widgeon is another handsome duck, well known to sportsmen throughout America and highly prized

on account of the delicacy of its flesh, which, like that of the other dabbling ducks, is always in fine condition. The widgeon is more often called the bald-pate on account of the top of the head and forehead being white. This duck is somewhat smaller than the mallard, being nineteen inches in length to the latter's twenty-two.

The widgeon flies swiftly, usually in small flocks. It is extremely shy and wary, and has been said to warn other ducks by its whistling sound.

Although the widgeon is a fresh- or shoal-water duck, it also frequents the brackish bays and sounds about the coasts, where it associates with the canvas-backs and red-heads, and steals their food in the manner already described.

I shot my first widgeon many years ago in Southern Ohio when they were fairly abundant on the Ohio River and on the smaller streams; but the incessant shooting at the ducks has so diminished their numbers that many of them are never seen in places where I used to find them abundant.

The widgeon breeds as far south as Texas, and if laws prohibiting spring shooting were passed in all the States, as they should be, these birds would be especially benefited thereby. They are very handsome birds. Mr. Thompson says the widgeon furnishes good shooting in Oregon, and comes readily to decoys. At times they are very abundant. The widgeon, he says, seem to love the sunshine, hence the best shooting is on a bright, sunny day.

THE GADWALL

The gadwall is often called the gray duck, on account of its gray appearance, and gray widgeon from its resemblance to that bird. The females of the widgeon and gadwall are much alike and easily mistaken. A female gadwall which was shot by my brother when we were shooting in North Dakota, was mounted by a taxidermist, who pronounced it a widgeon.

The gadwall is found throughout North America, but is not as common anywhere as are some of the other fresh-water ducks. I found it fairly abundant in North Dakota and usually shot a few gadwalls with the other ducks. One day when shooting on a little pond quite near the Devil's Lake, I shot a large number of ducks, and nearly all of them were gadwalls. They came quite rapidly toward evening, and standing in the tall rushes without much effort at concealment, I had some very rapid shooting. Far out on the lake the swans and geese were trumpeting and honking. Large flocks of snow-geese, or white brant, as they call them in Dakota, were always in the air, and mallards, sprig-tails, teal, and all the ducks were flying everywhere; but the gadwalls were the only ducks which came to me in any numbers. Had I put out only gadwall decoys, there might have been a reason for this, but I had no decoys that day at all. In fact the ducks were always so abundant, that I could kill far more than I could carry, without decoys, and an ambulance from the garrison came out to carry in the game.

The gadwall breeds in the Northern United States.

It is a handsome gray bird with a white speculum on the wing. It is fairly abundant in the tule marshes in California, and there, as elsewhere, it is much esteemed as a table delicacy.

THE SHOVELER

The shoveler is often called the spoon-bill from its wide bill, by which it is easily distinguished from all other ducks. It is not common on the Atlantic Coast, but is abundant in the Mississippi valley. It comes to the United States in the autumn with the other ducks, but some remain to breed throughout the States, even as far south as Texas. The flocks are larger than those of the gadwall or widgeon; the flight is said to resemble that of the teal, but they are not so fast.

The spoon-bills are very handsome birds, with bright green heads, like the mallards. They come readily to decoys, are excellent on the table and are easily placed among the best of the fresh-water wild-fowl.

I have often shot the spoon-bills when shooting other ducks, but have nowhere seen them very abundant.

XXXVII

THE MERGANSERS

MERGANSERS, or spike-bill ducks, as they are often called, are given in the check-list as a separate family of the order swimmers. There are three species: The American merganser, the red-breasted merganser, and the hooded-merganser.

These birds are readily distinguished from the ducks by their slim, serrated spike-like bills, which suggested the names saw-bill and spike-bill, often given them. They are all fish-eating birds, and dive and swim rapidly under water in pursuit of small fish, which they are enabled to catch with their sharp-edged bills. They are not very desirable as food, and can hardly be considered game birds, but they are often shot by sportsmen when in pursuit of better fowls, and at some places on the coast large flocks of decoys painted to resemble these birds are kept, and spike-bills are shot over them.

They are as much entitled to a place in this volume as the old squaws and coots already described, and are about as difficult to dispose of when shot.

The mergansers are all very handsome birds, and as they fly swiftly present excellent marks. I have eaten them when cooked by the wife of a bayman who was fully aware of the difficulties surrounding their preparation, and they satisfied the appetite which we had

after a stormy day on the bay. When canvas-backs and mergansers are both on the table, however, I take the former.

THE AMERICAN MERGANSER

Many names are given to this handsome fowl—sheldrake, buff-breasted sheldrake, goosander, saw-duck, and sea saw-bill, are the most familiar.

Migratory, like the ducks, the sheldrake is distributed throughout North America, and breeds in some of the Northern States. Like the wood-duck it builds its nest in the trees, selecting a hole which often seems too small to admit it. It flies rapidly and comes well to the decoys.

This bird is less common than the other mergansers and is far handsomer than any of them. It is easily distinguished by its black head with iridescent green reflections.

I have shot these birds now and then when duck-shooting, but have more often spared them, for the reason that they are not worth cooking when one is shooting ducks.

Upon one occasion a very handsome specimen flew up from the water before my boat as I was being punted on a prairie stream. It was an easy mark going straight away, but at the crack of the gun the bird dove from the air and was lost to sight in the stream. I was under the impression that I had killed it, but as the punter sent the boat swiftly forward he cautioned me to look out for it, and it soon came up and was in the air again. I did better with the second barrel and the bird fell dead upon the water. The

rapidity with which these birds dive from the air is most remarkable and a hawk would hardly catch one.

THE RED-BREASTED MERGANSER

This bird is also known as the sheldrake, fish-duck, saw- and spike-bill, and is seen more frequently on the salt water than is the preceding species. It is very common on the brackish bays and on the rivers that flow to the sea.

This merganser is found throughout North America, and like the others builds its nest in trees. It feeds exclusively on fish, and Elliot describes it getting under them and driving them to the surface, where the gulls pounce upon them and between the two large numbers of small fish are destroyed.

I have shot them several times over decoys on Shinnecock Bay when the broad-bills were not flying well, and one day made quite a large bag. The birds were nearly all females, however, and I could not account for this at first, but it was in the spring of the year and my decoys were all painted to represent the handsomer males and this no doubt accounted for my bagging only females.

The wife of the bayman at whose house I dined when at the bay, made a very palatable stew of the mergansers, putting in potatoes, onions, and perhaps other vegetables, of which I partook with satisfaction after long days of exposure on the bay. As the ducks come in fewer numbers more attention is paid to this bird, and as a mark it answers every purpose and often affords good shooting.

THE HOODED MERGANSER.

This bird is much smaller than the others and is accordingly often referred to as the little saw-bill, spike-bill, and pond sheldrake. The male is remarkable for its beautiful crest, from which it took its name.

The hooded merganser also nests in trees. It flies very swiftly, being nearly, if not quite, as fast as a teal, and it is, of course, necessary to shoot far ahead of it to hit it.

The little spike-bill is found usually on ponds and streams. I have only shot them occasionally when shooting better game.

BOOK III
SHORE BIRDS OR WADERS .

XXXVIII

THE SHORE BIRDS OR WADERS

BIRDS of the shores, or wading-birds, are designated by the ornithologists as *Limicolæ*, literally, inhabitants of the mud. A number of these birds, however, inhabit the uplands, preferring grass-fields and meadows to the marshy ponds or muddy margins of streams, and many are found upon the sandy shores of the ocean.

As we consider these wading-birds from the sportsman's point of view, we find it difficult to determine how many of them should be classed as game. One of the best of all the birds, the magnificent woodcock, heads the list. There is a gradual decrease in size and value as marks from the large curlews until we have remaining a few diminutive birds, such as peeps and sanderlings, thoroughly undesirable as marks and worthless as food. We cannot take size, however, as the criterion, since some of the smaller shore birds are, like the diminutive rail and reed-birds, better food than some of the larger. The kill-deer plover, on the other hand, is a fair-sized mark, and is shot often by sportsmen, but in my opinion he is too fishy to eat.

Sportsmen, however, like doctors, differ. Many, no doubt, will continue to shoot both kill-deer and the smaller marks, which should be left to pipe and whistle in the marsh or run gracefully from the waves on

sandy beaches and follow the receding water in their search for food. The woodcock and the snipe are shot over dogs. The method of capture is not ambush, but pursuit quite similar to that of the gallinaeous birds. The upland plover, one of the best table birds on the list, is also taken by pursuit, but the sportsman usually approaches the birds in a vehicle or on horseback, without the aid of dogs, since the birds rely upon flight rather than concealment. All the other shore-birds are taken from ambush, and are shot over decoys, the sport having much resemblance to that of duck shooting. The weather (late summer weather) for this sport is, however, usually fine, quite different from the severe cold and rain, snow and wind, when duck shooting is at its best. The shooting of shore birds is a lazy pastime, not to be compared with the tramp across fields and through the woods behind the thoroughbred setters and pointers, nor with the shooting at the wary swift-flying ducks on the marsh lands. Forester said that sportsmanship proper could not be said to belong to this form of shooting, unless (which few persons do except the professionals) one make and set out his own stools, paddle his own canoe, and whistle his own birds.

The shore birds are migrants. As the geese, brant, and ducks move northward in the spring, they are followed by the waders, familiarly termed bay-birds or bay-snipie. These birds nest in the far North, and should not be shot in the spring, when their visit is of short duration. They return late in the summer, and were they protected in the spring there would be a vast improvement in the summer and early fall

shooting. The bay-birds are found not alone about the shores, bays, and salt-water marshes, but most of the varieties cross the interior of the country. I have seen them in great abundance in the Dakotas, and they are probably to be found nowhere in greater abundance than there and in Texas at the proper seasons. They now come in greatly diminished numbers to the Eastern and Central States by reason of the over-shooting, especially for the markets. They are fortunately protected on the preserves of the numerous duck clubs, and when the ducks are present are not much molested, the larger game being more attractive. The number of these birds which used to visit the marshes about the bays of the Atlantic Coast seems almost incredible. Giraud was informed by a gunner residing in the vicinity of Bellport that he killed one hundred and six yellow-legs by discharging both barrels of his gun into a flock while they were sitting along the beach. Wilson mentions eighty-five red-breasted snipe being killed at one discharge of a musket. Audubon says he was present when one hundred and twenty-seven were killed by discharging three barrels. I have seen the birds sufficiently numerous about the muddy rims of ponds in North Dakota to make such shots possible, but always preferred to shoot at the flying marks. I never made a pot-shot on the ground, and usually left the wading-birds undisturbed, preferring to use my ammunition on the sharp-tailed grouse and wild-ducks, which were equally abundant.

I have been much inclined to eliminate many of the shore-birds from my list of game, but the gradation from the better to the poorer varieties is so slight as to

make it difficult to draw the line of exclusion. The sportsmen of to-day are more and more interested in natural history, and I have determined therefore to include all the shore-birds in my commentary, giving the larger space to those which are well deserving of it, and but a brief mention to those which the sportsman should not molest. These would soon become tame enough to furnish a proper amusement with the camera.

There are in all seventy-six species and sub-species. The ornithological list includes seventeen stragglers, or accidental visitors, such as the European snipe and woodcock. There are five sub-species which differ so slightly as to be the same to the sportsman's eye.

The order *Limicolæ* contains six families of shore-birds. These, in the order of their importance to sportsmen, are: 1. *Scolopacidæ*, the family of snipes and sandpipers; 2. *Charadriidæ*, the plovers; 3. *Recurvirostridæ*, Arocets and Stilts; 4. *Phalaropodidæ*, the phalaropes; 5. *Aphrizzidæ*, the surf-birds and turnstones; 6. *Jacanicæ*, the jacanas.

The birds which interest sportsmen are for the most part found in the first three families above. In the first are the woodcock, the snipe, and the upland plover or Bartramian sandpiper, and several other sandpipers fairly good as marks and to eat.

Among the plovers there are several fine birds, especially the golden-plover and the black-breasted plover; large plump birds. The golden-plover and many of the other varieties are far better table birds when found on the Western prairies than they are when feeding about the shores and salt marshes, when they

frequently have a most disagreeable fishy taste. I have shot the dowitcher or red-breasted snipe on the grounds now preserved by the English Lake Club (near Chicago), when the sport was similar to that of snipe-shooting. The birds were feeding in the grass, and I shot them while shooting snipe, and so closely do they resemble the snipe in size and length of bill that I had several in the bag before I noticed the difference. Their flesh was excellent. On the prairies of Indiana and Illinois I have shot many golden plover when they were plump to the bursting point, and their flesh compared favorably with the delicious Bartramian sandpiper or field plover. By eliminating the small and undesirable varieties, the list of shore birds considered game would be reduced to about two dozen birds, including the woodcock, snipe, upland plover, dowitcher curlew, golden plover, dunlin, yellow-shanks willet, and others of less importance.

The three most important birds on the list are the woodcock, the snipe, and the upland plover. We will consider these in their order, giving them the space they deserve. We then proceed to bay-bird shooting, where all the other varieties may be taken in a day over decoys. A descriptive list of all the shore birds is given in the Appendix, from which the sportsman may pick his game according to his taste or conscience.

XXXIX

THE WOODCOCK

NO warning cry used by sportsmen is more thrilling than that often heard in the wet thicket, "mark cock!" No American game bird is more highly prized by shooters than the woodcock. William Jarvis well says in a poetic sentence, it is "a bird with the magic power to turn its admirer from all other feathered game, if once he hears the whistle of its wings or sees its form glide stealthily down the glade." Dr. Coues observes this is *the* game bird after all, say what you please of snipe, quail, or grouse, and Gurdon Trumbull adds "yes, Doctor, either in the field or on toast."

The woodcock is peculiar in its appearance and is easily distinguished from all other game birds. The general color is rufous gray, effectively marked above with black; its head is larger than that of the snipe or partridge (Bob-white), and the black eyes are set well back and high to enable it to see when boring in the mud with its long bill. The legs and bill are a gray flesh color, the bill being about two and three-quarter inches long and twice the length of the head. Compared with the Bob-white the woodcock is somewhat heavier and larger, the length of the former being from nine and one-half to ten inches, the latter ten and one-half inches to twelve inches. The woodcock in extent of wings is from sixteen to eigh-

teen inches, and in weight is from five and one-half to nine ounces. A full-grown cock will weigh as much as nine ounces. Compared with the snipe the woodcock is heavier and stouter, and is more stocky in appearance. The sexes are alike in color and markings, but the female is always the larger.

The technical Greek name (*Philohela*) indicates that the woodcock is a swamp-lover, and the Latin word (*minor*) was added to indicate that he is smaller than the European woodcock, which he much resembles.

The woodcock is distinctly a bird of the wet woodlands. He is often found, however, on wooded hillsides and high up in the mountains. Trumbull says he is known to the darkies about Matthews Courthouse, Virginia, as mountain partridge; and though we commonly associate woodcock with bogs and low-lying land, we must not forget the good shooting we have had sometimes higher up, nor the fact that many of these birds retire for a time to the hill-tops each year. Mr. George B. Sennett saw a pair of these birds on the summit of Roan (North Carolina) in a clump of balsams at an altitude of fully six thousand feet. (*The Auk*, July, 1887.)

The woodcock arrive in the Northern States in March, some as early as February. The courtship begins in April, and the male bird may then be seen dancing about in the bog with elevated tail before his admiring mate, and singing his love song, which has been described as a nasal squeak. After singing for a time he soars aloft on whistling wings and shortly drops with great suddenness on the spot from whence he flew. Edwin Kent is my authority for the state-

ment that farmer boys take advantage of the cock when thus performing, and watch for the bird when he leaves the ground, then run to the spot he left and kill him with a switch when he drops to earth again.

The nest is rudely constructed, usually on the leaves on a dry spot in the wooded swamp. There are four or five eggs, speckled buff in color; and should the nest be destroyed by flood, the birds will usually nest a second time. The young, like the young partridges, are precocious in the extreme, and run about as soon as they leave the shell. The woodcock has protective markings, and the russet color harmonizes well with the leaves; it is difficult to see the birds on the ground. When the mother is alarmed, like the partridge she warns her young to hide, and flutters away as if disabled, inviting her enemy to follow her as she leads him away from her young. Mr. Hills, of Hudson, New York, sent me four remarkable photographs of this bird and its nest. The pictures were made in the town of Claverack, Columbia County, New York. Mr. Hills says: "I found the nest June 24th, and secured the pictures June 28th." After making one picture he took a small stick and lifted up the bird's bill so that it would show to better advantage. He then placed the camera within eighteen inches of the bird, leaving her bill resting on the stick, and for the fourth picture he lifted the bird from the nest and photographed the eggs. She returned to the nest soon after he left it. He found the eggs not pecked on the morning of the 28th, but on the morning of the 30th, at nine o'clock, she had hatched her young and they were gone.

The woodcock feeds by boring. Its long flexible bill

is well supplied with nerves, and it searches for its food by feeling for it. The food is chiefly earthworms, but it also devours many insects which are found in the damp woods, and has been seen to catch butterflies. Audubon discovered that a woodcock devoured in a single night more than its own weight in worms, and some experiments recently made on a captive bird confirm his observations. Mr. Kent says one of his friends kept a pair of woodcock in confinement for a few weeks in one end of his greenhouse fitted up for their accommodation. Several large, shallow, wooden trays were filled two or three inches deep with loose moistened garden loam, in which was placed the supply of angle worms. It required more of the gardener's time than could well be spared to provide sufficient worms for the birds, as the trays were cleaned out during the night, and he eventually let the birds go.

When feeding the woodcock stands for a moment with his head on one side as if listening, then thrusts the long bill into the earth and feels for a worm. The bill is repeatedly withdrawn and thrust in again, now an inch or more to the right, then to the left, or in front or behind the first boring, until at last the worm is struck and withdrawn. The pattern of holes left in the mud indicates to the sportsman the presence of the birds in the cover. I recently observed some snipe boring in the Sandusky marshes, and it seemed to me the bill thrusts were more rapid than those of the woodcock. The pattern made in the mud is similar. The woodcock is a nocturnal bird and usually feeds and flies by night. Although found in the woods and always remaining in brush or timber or cover of some

kind, such as standing corn, during the day, the woodcock at dusk will fly out to any ground where food is abundant. I have known them to drop into gardens quite near the house, and they often fly to feeding grounds quite distant from the cover. I have had them fly quite close to my head when sitting in the front yard, and they have often been seen flying through the streets of a village, and once down Broadway, New York. I had one brought to me for identification which was taken in a business street in Cincinnati, and knew of one being captured in a passenger depot. Many are killed by striking telegraph wires or fall victims to prowling cats. The woodcock remain until the ground freezes, when they at once disappear, going south. There the heavy cane-brakes are a safe refuge, and it is fortunately so, since the woodcock is one of the birds which seem destined to become extinct at an early date.

The woodcock is found from the Gulf to Canada and west to Nebraska and Kansas. They were formerly very abundant in certain counties in New York, and Forester mentions killing with a friend one hundred and twenty-five birds in one day, and seventy the day following before noon. This was in July and it was intensely hot. The ground, he says, became so foiled by the running of the innumerable birds, that although they had excellent retrievers they lost beyond doubt forty or fifty birds, and at four in the afternoon of the second day they were entirely out of ammunition.

Woodcock are abundant in Louisiana during the months of December and January, and they were for-

merly shot at night by means of torches and beaters. I found them very abundant a few years ago in Northern Indiana and in Illinois, but they are nowhere found in any such numbers as Forester describes. The sportsmen of the country have viewed their decimation with alarm, and just now the question of a rest period of some years' duration is being urged in the papers devoted to field sports.

The season for cock-shooting was until a few years ago entirely too long. The opening day in most of the States was July 1st, and summer cock-shooting was practised everywhere. The argument in favor of shooting cock in summer and snipe and ducks in the spring has always been *ad hominem*, resting not upon merit, but upon the position of those engaged. If we do not shoot woodcock in July and snipe in April, we will have no July or April shooting. But as the scarcity of game of all sorts is brought to the attention of sportsmen, the sentiment against spring and summer shooting grows stronger, and this sentiment is already reflected in the legislation of many States.

I passed one summer at a farm a few miles from Cincinnati, on the Little Miami River. I had no thought of finding woodcock so near the city, but one day I asked a local angler if he had ever seen any woodcock in the vicinity, and he said he had flushed an occasional bird along an old and abandoned mill-race just across the river. The following Sunday he was going over after minnows, and I accompanied him, taking a camera, since he described the place as most picturesque, darkly beautiful and romantic, with occasional glimpses of water in the old race. We entered

the woods, and stooping to examine the ground for borings I put up a cock and soon flushed several more. In a short stroll we flushed eighteen or twenty birds. A few days later I returned with the gun, accompanied by a small boy from the farm and the farm dog, a large black animal, with a white tip at the end of his tail, which had some pointer blood, but absolutely no training. In a few hours I succeeded in making a very fair bag of birds. The ground was overgrown with tall horse-weeds, festooned with creeping vines, and shaded by the heavy foliage of large trees. Many smaller willows stood along the race and it was by no means an easy place to shoot. I returned often to this ground and always met with some success in the afternoon, but usually found no birds in the morning. In fact, I shot most of my birds late in the afternoon, and was convinced that they were more easily found when the feeding time approached and the birds began to move about. I would advise sportsmen when shooting other game in the vicinity of a likely cock cover, to reserve that for the afternoon, since I am firmly convinced more birds will be found then, than in the morning.

I once made a trip especially for woodcock to some splendid ground south of Fort Wayne, Indiana. We started on the opening day (July 4th) and had a special car and engine at our disposal which moved us from one wet woodland to another, and we succeeded in making fair bags each day. We would have done better had not others been shooting ahead of us out of season, as was evidenced by the empty shells which were scattered everywhere in the woods. The wild



COCK SHOOTING, LATE IN THE DAY

roses and other flowers were in full bloom and the heavy summer foliage cast strong blue shadows through the woods, intensifying by contrast the spots of vivid green where the sunlight fell. It was very hot and we returned often to the ice-cooler in the car. The mosquitoes were abundant and industrious. Although we had ice we found it difficult to preserve the game. Many of the birds were small, and I was more than ever impressed that it was not the season for shooting feathered game.

Forester tells of shooting in July with a friend who fired at a woodcock, which fluttered off as though wounded. When it was again put up it returned on strong wings to the place where it was first flushed. Following it, one of the dogs found and caught a young cock still unable to fly. What stronger argument could be advanced for prohibiting the summer shooting? The date when the young were hatched in the nest photographed by Mr. Hills was, as I have observed, later than June 28th. The open season in some of the States is still July 1st. Just think of a campaign against birds two days old! It is not only outrageously wrong, but cruel to shoot woodcock in July. The opening date should not be earlier than October 1st. The consensus of opinion among sportsmen is now strongly against summer shooting. It has been prohibited in New England and in many other States, and it is to be hoped that it will be prohibited in every State in the Union within the coming year.

There is but little pleasure to be obtained from summer cock shooting. It is very hot, tiresome work at best, hard alike on man and dog. The heavy summer

foliage alone makes the shooting difficult. The young birds are easy marks and the many small ones make an unattractive bag. The knowledge that the shot may deprive birds two days old of the parents' care and protection should be sufficient to keep sportsmen out of the woods at this season without the prohibition of a legal enactment.

In bright October, when the frost is in the air and the leaves have taken on the gorgeous tints of autumn, the birds are strong on the wing and present far more difficult marks. They are heavy, plump, and handsome, the rufous tints being frosted with gray, and the flesh is in fine condition for the table. The dogs, instead of trotting about with tongues hanging from their mouths, hunt with a vigorous eagerness, their heads are held high and it is a pleasure to see them go.

As to the kind of dogs, since the shooting of woodcock is more often an incident to a day's tramp afield for partridges or ruffed-grouse, they are usually the pointers or setters. The dogs should be trained to hunt close to the gun, and are often lost for a time when pointing the game in the thick underbrush. A small bell is sometimes attached to the collar to aid the sportsman in locating the dogs. Where the bell was last heard tinkling the dog is often found on a point. Small spaniels are perhaps the best dogs for woodcock when one goes in pursuit of these birds alone. These merry little dogs gallop about at short distances from the gun and give tongue when they flush the game. They have excellent noses and are extremely fond of the sport. The woodcock gives forth

but little scent as compared with other game, but on the moist ground, where they are always found, it is sufficient for the pointers and setters to locate and point them.

When flushed, the cock whirls rapidly up through the overhanging trees, and flies swiftly away, producing a whistling sound which has been the subject of much controversy among sportsmen and ornithologists. Trumbull, in an article in *Forest and Stream*, gives his observations of a captive bird, and is firmly of the opinion that the whistling noise is vocal. Brewster, in the same magazine, insists that the noise is made by the wings. Many other writers joined in the controversy, and pages have been written on the subject. I believe the noise is made by the wings.

Since the cover is dense, the shooting is difficult, and snap-shots are the rule. I have often shot woodcock by firing into the cover after I had lost sight of them, aiming a little ahead of the disappearing bird, and later recovering him with the aid of pointers or setters. The shots are usually at short range. A light, open gun, 12 or 16 gauge, is used, loaded with small shot; No. 9 early in the season, and No. 8 late in the fall. The smokeless powder is far superior to the old black powder of a few years ago; the heavy cloud of smoke from the first barrel hanging low in the damp atmosphere of the wet woods often prevented the use of the second barrel.

✓ The woodcock disappear in August from places where they have been abundant in July. There has been much speculation as to the cause of this disappearance, which occurs at the moulting time. Some

writers insist there is a migration, some say the birds go to the hills, others believe the birds resort to the standing corn. That the disappearance occurs there can be no doubt, but there seems to be much doubt as to the cause of it, and the place resorted to.

The disappearance was once referred to in *Outing* (September, 1892) as "the mystery of the woodcock's life." My own observations lead me to believe that it is not the knowledge that the loss of the feathers renders them to a certain extent helpless, which induces them to leave the swamps, but the fact that the food becomes exhausted. /

When we recall that a woodcock will eat more than his weight in angle-worms in a night, and consider that each cock has his mate and four or five young, with the proverbial appetite of youth, it seems reasonable to believe that the food supply gives out on the breeding grounds, which are often quite limited in extent. As the dry season comes on the boring area is much restricted, since the flexible bill can only be used in soft, moist earth. About the old mill-race in Ohio where I had an opportunity to notice the disappearance of the birds, I observed that the ground, as the season progressed, was bored literally full of holes in all places where boring was possible. The race, and a creek which carried its waters to the river, flowed through a low strip of land between hills or high terraces, leading to the fields above. The entire ground was not over a mile in extent, and the boring area was quite narrow, and in places where there were deposits of lime-stones, of course there was none. Early in the season the terraces or hill-sides were sufficiently moist

in places to enable the birds to use their probes, but as the season advanced, but a few small spots remained where the birds could bore. The sportsmen in the little village nearby said the birds had gone to the hills, their evidence supporting the contention of Trumbull and others.

With a dog almost worthless I found birds in the neighboring corn-fields, which furnished evidence to support the theories of many other writers. Being satisfied that the birds scatter at this season in their search for food, the only question which remained was why they should abandon the home of their birth, when they might readily go out to feed at night, and return to rest in their chosen cover by day. Possibly the partial loss of wing power at this season is the answer to the question. It is most likely that the continuous shooting may make it seem desirable to the birds to move to other more secure retreats. Ducks when much persecuted will abandon the choicest feeding grounds: why should not the woodcock do the same? I certainly gave the birds along the old mill-race every reason to desire a change of habitat.

The woodcock are now protected on many of the preserves owned by duck clubs. The wet woodlands adjacent to the vast wild-rice marshes about the Kankakee and the Sandusky rivers, and everywhere within the range of the woodcock, where there are duck clubs, harbor many woodcock, and the protection given the birds will do much toward the salvation of the race.

Woodcock were bred and raised in Fairmount Park, within the city limits of Philadelphia, last season.

Good cock-ground in the Middle and Western States

is usually found in the forests adjacent to the streams, muddy from flowing through rich alluvial bottoms. The timber is walnut, beech, and other nut-bearing trees; oaks, maples, and the picturesque sycamores with wide-spreading white branches, and many willows. The undergrowth is heavy. Tall horse-weeds grow in many places higher than one's head, and many vines and creepers, from the slender morning-glory to the larger grape, are tangled in a way to make the walking difficult. In the hills and mountains of Pennsylvania, New York, and New England the cocks are found beside brighter, purer waters in the alder swamps and places where the beautiful rhododendron flourishes. Many springs and brooks in the haunts of the ruffed-grouse water areas of boring ground often of very limited dimension.

In the South the cocks are found in the wet woods, but as I have already observed, there is a harbor of refuge in the cane. Charming is the ramble over any of these grounds, magnificent the game. Great is the joy of the sportsman who in the autumn stops a plump, gray cock as he goes whistling through the brake.✓

During very dry seasons large tracts of woodcock ground become uninhabitable, there being no longer any places soft enough for boring; at such times the birds cannot feed and must move. Should there be a small lake or pond in the vicinity with woods adjacent, and springs not affected by the dry weather, the woodcock will there congregate in vast numbers. I once set out from Lake Forest, a village north of Chicago, with a sportsman who resided there, our destination being a duck club at Fox Lake. We went in

his shooting-trap, drawn by two horses, and when well out on our journey met with a slight accident which could only be repaired by a blacksmith. We found one near at hand at a cross-road's village, and I asked him if there were any ducks in the neighborhood. He said they were abundant on a small lake a mile away, and we went to the lake to put in the time while the repairs were being made on the wagon. At the lake we found a leaky boat which would not carry two persons, and I agreed to my friend's proposition that I take a trip about the shore while he put out to the open water to stir up the ducks which were floating in rafts at the middle of the lake. It was some years ago, when it was the fashion to shoot large shot at ducks, and we carried Nos. 2 and 3.

I had gone but a few steps when I flushed a handsome cock, and soon discovered there were more woodcock on the ground than I had ever seen before. The walking was abominable. The mud in many places was very deep, and I had to make my way carefully, stepping from one hard tuft of grass to another. The heavy duck-loads often upset my balance and I had several falls. The shot was, of course, too large for the game; my shooting was especially bad and the bag light. My friend, after several long shots at the ducks, pulled over near the shore and asked me what I was firing at so rapidly. I informed him that the woodcock were holding a mass-convention. While we were talking several birds arose near at hand and flew off. He declined to come ashore, observing my plight and the bad nature of the ground. It was about time, too, for us to get on. We returned to the wagon

and finding it finished we resumed our journey. I have never seen so many woodcock before or since. They had no doubt gathered from miles around, since the country was for the most part thoroughly dried up.

Nearly all writers mention the fact that the woodcock are often unknown to the farmers on whose lands they reside, and Gurdon Trumbull says: "Many funny stories are told of sportsmen being led far into the woods by promises of good woodcock shooting, only to find at the end of their journey that the woodpeckers were referred to. I had a similar experience within the year in one of the western counties of Pennsylvania. I once shot a very large cock when visiting a farmer in Southern Illinois but a short distance from his house. He expressed great surprise upon seeing the bird, and said he had never seen one before. We were shooting partridges and he was an excellent shot, very fond of the sport, and spent much of the time during the autumn shooting. I killed several other woodcock during my visit, and could only account for his not knowing the birds by reason of the fact that partridges were extremely abundant, and he no doubt kept out of the wet places, finding an abundance of birds on the stubble and in the dry woodlands.

Forester tells us that, during the fall migration, as rapidly as the woodcock are shot in the cover, new birds will be found to take their places. He advises the sportsman who has shot all the birds in a cover in a day, to return the next, and says he will find the cover restocked from day to day. He wonders at this habit, but does not try to explain it. My opinion is,

that the birds migrating in small companies following one another, arrive and depart with some regularity at the covers where the food is abundant. When the birds are all shot off one day, and a similar number are found on the ground the next day, the matter is noted and much talked about as something strange. When no birds are found the next day, the matter is not discussed. I am prepared to admit that new birds often will be found in a cover shot out, but not always.

The woodcock has many local names. He is sometimes called snipe, or big-headed snipe, wood-snipe, whistling-snipe, mud-snipe, and red-breasted snipe. The latter term is more often applied to the dowitcher. Timber-doodle is another name used by countryfolk.

The European woodcock is an occasional visitor to our country and is occasionally shot by sportsmen. He is a very much larger bird, so much larger, indeed, as to be easily distinguished. I read some time ago of an experiment to introduce these birds into America, but the result was not satisfactory ; the birds were not seen again after their first migration.

XL

THE SNIPE

THE snipe (ornithologically Wilson's Snipe) is the game bird of the open bog-meadows, and is second only in importance among the wading-birds to the woodcock. He is a handsome, graceful bird, protectively marked above with brown and tan and black. The markings on the back are lengthwise. The under parts are white and gray. The bill is long, slender, and flexible, like that of the woodcock, but he is a more slender bird, and somewhat lighter.

The snipe arrives in the Northern States early in the spring, as soon as the frost is out of the ground. A few remain in secluded places to nest, but most of the birds continue northward as the weather becomes warm, and nest far beyond the boundary of the United States. There are three or four eggs in the nest. Like the woodcock, the snipe feeds by boring in the soft earth for angle-worms. His presence is indicated by the numerous small holes made by the bill, and until there are borings it is useless to look for him on the meadow.

The snipe is found throughout North America when migrating, but only on wet meadows and fields where the ground is suitable for boring and where his food is to be found. He winters in the Southern States, Mexico, and the West Indies. I have shot them on the

meadows of New England and west as far as Dakota, where they were fairly abundant about the small streams and lakes. Nowhere are they as abundant today as about the prairie sloughs in the Western and Southern States.

Audubon says the snipe is never found in the woods, but Forester mentions finding it in wild, windy weather early in the season in the skirts of moist woodlands under sheltered lee-sides of young plantations, among willow, alder, and brier brakes, and, in short, wherever there is good soft, springy feeding-ground perfectly sheltered and protected from the wind by trees and shrubbery. Abbott says: "During the autumn I have found them along neglected meadow ditches overhung by large willow-trees, and again hidden in the reeds along the banks of creeks. I have shot them repeatedly in wet woodland meadows." I have often found snipe in bushy tracts and among the swamp willows, but I have never seen them in the forest, and believe they so rarely resort to the woods that it would not be worth while to seek them there.

From the middle of March to the middle of April we may look for the arrival of the snipe. They seem to know in some way, we know not how, when the frost is out of the ground, and suddenly make their appearance in great numbers. Where there were no birds one day there may be thousands the next. Their going is equally sudden. After a real warm day in the spring and at the first hard frost in the autumn not one will be found remaining. There is so much uncertainty about the time of arrival and departure that I would advise sportsmen living at a distance from the

shooting grounds to have some local sportsman telegraph when the snipe are on the grounds. The first warm, settled weather in the spring will bring the snipe to the meadows. It was until recently everywhere the fashion to shoot snipe in the spring. While the sport is not so barbarous and cruel as the shooting of the woodcock in summer, since the snipe have not nested and there are no young birds, it has nevertheless been thought desirable to stop the spring shooting, and in many States there are laws prohibiting it.

The frost seems to leave the uplands much earlier than the lowlands. Early in the season, therefore, when the snipe first arrive, there may be none on the low-lying meadows, their favorite ground, and many birds on fields, especially cornfields, higher up. I once tramped an entire morning early in the season over one of the best snipe grounds in Indiana—a low, wet prairie with a slough winding about through its centre—and failed to find a single bird. I was certain the birds had arrived, since I had found them a few days before on some meadows near the village where I was stopping. Late in the day, in despair, I asked a country boy if he knew where the snipe were. I little expected any information from him, but after describing the bird, he directed me to a cornfield on higher ground, and advised that I enter the field from a lane which passed it, and at a certain point where there was a depression in the field. Following his advice, I climbed the rail fence, and as I entered the field several snipe arose but a few feet ahead of me, and, without stopping to pick up a bird or moving from my place, I killed a half dozen birds; and in less than two hours I

bagged thirty-eight snipe and two golden plovers—all killed in that cornfield and the one adjacent, where I followed a few of the birds.

The snipe return to the Northern States in September, but many of the good spring grounds are then entirely dried up, and being unsuitable for boring, the snipe do not visit them. In the autumn I have often found the snipe in the ditches and about the edges of small streams where the ground is soft enough for boring. I have found them abundant in the autumn on the marshes controlled by the duck clubs about Lake Erie; usually on the muddy margins of the ponds or water-holes, or along the streams or sloughs. When the meadows are dry, the snipe must necessarily go to the marshes owned by the clubs, and in many places there is no fall shooting at snipe except for club members.

When the snipe first arrive in the spring they are wild and in poor condition, but in a few days they become fat and lazy, and on warm days lie fairly well to the dogs. In wild, windy weather they have a habit of flying up to a great height and letting themselves fall through the air with a humming noise produced by the wings. This performance, which it will be observed is somewhat similar to the courtship of the woodcock, is repeated over and over again, the snipe descending (not to earth, however, and often not low enough for a shot), and then soaring aloft and dropping as before. At such times snipe will not lie to the dogs, and those found on the meadow are as wild as hawks, and the sportsman cannot expect to meet with any success until this performance of

“drumming,” or “tumbling,” as it is called, is over. Herbert says he would not have been more surprised when he first saw the snipe perform in this manner, had they begun to sing “God save the King,” or more appropriately, “Hail Columbia.”

One wild, windy morning when shooting with a friend in Indiana, we found the birds all drumming, and getting under them, I fired several shots at them as they descended, but we did not kill a bird until afternoon, when the sun came out warm and genial and the birds ceased their performance and returned to the fields. We then had good sport with them. Snipe were formerly very abundant both in the spring and fall. Forester tells of large bags made on the meadows about the Hackensack and Passaic rivers. Bogardus mentions killing, with a friend, three hundred and forty of these birds in a day on the Sangamon in Illinois, and says their bag was seldom so small as seventy-five couple at the right time. The larger score would indicate an average of a little less than three birds every five minutes for ten hours. Any one who has seen Bogardus smash glass-balls or shoot pigeons at the trap can readily believe that he could ably assist in the killing of such numbers; but admitting the skill of Bogardus no one can kill all the birds shot at, and many escape without a shot being fired, either arising out of range, or while the gun is being reloaded and flying away from the line of beat; so that it is evident there must have been myriads of birds on the ground. I have seen these birds extremely abundant in many places in Ohio, Indiana, and Illinois, and upon several occasions made large bags, which

would have been larger had I not run out of ammunition.

On one occasion, in Ohio, I killed twenty-eight birds in a little over an hour's shooting before breakfast. It was seriously urged some years ago in Ohio that the snipe needed no legal protection, since they came in such abundance it would be impossible to exterminate them.

The snipe are, however, nowhere as abundant today as formerly, and it is fortunate that they have in Ohio and elsewhere comparatively safe retreats on the club preserves, where they are not shot in the spring, and where they are often unmolested in September, for the reason that the teal and wood-duck shooting is then good on the same grounds.

There is a reason for the absolute disappearance of these birds from many places to be found in the draining of the lands. The feeding grounds being destroyed, the snipe were forced to go elsewhere. Some of the most famous snipe-grounds in Indiana (one of the best snipe States in the Union), the prairies about Vincennes and in the vicinity of Lafayette, Chalmers, Reynolds and other places farther north were thus closed to sportsmen. And so it has been throughout the West where the soil was rich and fertile, and there was not too much water. As an offset to this destruction of good shooting ground, some new grounds have been made by turning in cattle upon the lands adjacent to sloughs and ponds, where the wild grasses grow too tall and heavy for the snipe, and where only the rails were found. While reducing the grass to the proper height for snipe, the cattle improved the feed-

ing ground by much tramping over it, and in such places I have recently found snipe abundant where there were none a few years ago.

The season before last I was fishing in the waters of the St. Clair flats, and for some miles about the small hotel where I was stopping the reeds and grasses were entirely too long and heavy to harbor snipe. The rails were abundant, both the small varieties and the large king rails, but there was not enough water in the grass to float a boat, and sportsmen well know success does not follow the pursuit of rails afoot. It was September and I knew the snipe must be passing upon their Southern migration, and made repeated inquiries for them. I was assured by my landlord, who was very fond of shooting, that there were none about; but once when I was on a tour of inspection through the waterways to the eastward in the direction of the middle channel, I was lost in a blind cut and found at its head a dairy farm which supplied some of the large hotels about the south channel with milk. Upon going ashore to make some inquiries I flushed a snipe and noticed the cattle had made the ground most suitable for feeding. The owner of the ranch had no objection to my shooting. I fortunately had a gun in the boat and several boxes of cartridges, and I was soon at work with the birds, shooting over a brace of spaniels which belonged to the dairy-man. I did some very good shooting, and when I returned with the birds my landlord expressed surprise at my finding any so near at hand.

Here is an excellent suggestion for the duck clubs, especially those frequented by the shoal-water ducks,

or dabblers, where the snipe, although abundant, are scattered about on the narrow rims of mud and there is often no good shooting. I was discussing this matter one day with a member of the Ottawa Club, when he pointed out to me an excellent piece of snipe ground across the river which had been made by turning in some pigs. He said he believed these animals made even a better snipe ground than the cattle, but on this point I have my doubts. I have never much fancied shooting when a flock of pigs followed on behind as witnesses. The snipe are often found abundant upon the sloppy tracts used by cattle about the distilleries, and I am quite sure some undesirable sloughs and wet lands can be converted into good snipe grounds by the use of these animals.

Another method which has been tried with some success is the burning of the grass when it is very dry, and I have recently seen it stated, I forget now where, that the frost seems to come out of the ground earlier where the grass has been burned off, and the suggestion was made that the blackened surface took more kindly to the sun's rays. Any place especially desirable by reason of the frost being out of the ground and the food abundant will attract the birds upon their first arrival and hold them until their departure, provided they be not too much persecuted. There should be at all clubs certain rest days for these birds each week, such as are provided by law in some States for the ducks, when under the club rules the birds would be unmolested.

Upon preserves where there are both snipe and ducks certain days might be open for each, and when

the preserves are large certain tracts might be closed to advantage at all times, with the result that some of the ducks and snipe would remain to breed on the club property.

The size of the bag should be limited by law, as it now is in many States, and supplemented by club rules; so that the killing of three hundred and forty of these birds in one day will no longer anywhere be tolerated.

The flight of the snipe is peculiar. When flushed he flies rapidly for a short distance to right or left; instantly reverses his course and goes in the opposite direction, and continues to pitch and dart rapidly from right to left, all the while uttering a squeak which is said to resemble the word *escape*, and escape he always does from the novice, and quite often from older and more experienced guns.

After going some distance the snipe settles down to a course more regular. It was formerly considered most important to wait until the snipe flew straight before firing the gun. He was, however, often out of range before making the change in his flight, and the sportsmen of to-day, with their light hammerless guns, treat him as a right or left bird, as he may be going, and aiming a little ahead have a better chance of bagging him than those who used to wait to "see the rover travel straight."

The snipe has never been for me a very difficult mark. His flight is silent. There is no noisy roar of wings such as the grouse and partridges make to disconcert the shooter. The shots missed are easily accounted for; for it is seen that the bird has decided to

go about on the other tack just at the moment the load of shot was sent across his bow, and of course he escapes and flies on joyfully, announcing the fact to all the other birds on the meadow. The cause of the error being apparent, it is easily corrected. The tacks are sufficiently long to enable the sportsman to kill the bird before it makes the turn, and if he be sufficiently cool he can select his shot, taking it to right or left as he may prefer.

I have shot snipe in many places, and have always made better bags and killed more birds continuously without a miss when shooting snipe than when shooting any of the other small birds of the upland, such as partridges, woodcock, and plover. The prairie-grouse are so large and fly so slowly that they are of course easier marks.

The most important thing for a snipe-shooter to know is that he must beat his ground down wind. He must enter a field or meadow from exactly the opposite side to that taken when he is in pursuit of grouse or partridges, and turn his back upon the wind. The reason for the rule is that the snipe always arise and fly against the wind. They are usually wild and shy, and take wing when some distance from the shooter, so that it is all-important that they should spring and fly toward and not away from him. The dog, to be sure, is placed at a disadvantage when sent down wind, but this is more than offset by the birds flying toward and not away from the gun. The dogs used are usually pointers or setters, and they soon learn to point the game at long distances, and not to attempt the near approach, which is possible when pointing grouse or partridges.

Forester, who had excellent opportunity for studying the snipe when they were abundant on the Passaic meadows, near his home, says he made a much better bag when shooting one day in sight of another gunner, an equally good shot, and who had better dogs, for the sole reason that he knew how to beat for the game. When they met at the local tavern in the evening the other gunner expressed surprise at being so badly beaten, especially by one who, from his point of view, was hunting the wrong way—with the wind.

When Forester explained that he purposely shot down wind his rival accepted the situation, glad of the excuse for being so badly beaten.

Bogardus gives the same advice. "When hunting along a slough," he says, "your companion will commonly, be willing that you shall take either side you choose, as few men know that it makes any difference. But it makes a very material difference when the wind is blowing across or nearly across the slough, and if you take the windward side you will have the most shots. I have always done so, and have often killed two or three snipe to one killed by my companion. The reason is simply this: the snipe fly up wind, and those which rise on the leeward side of the slough cross it to windward, while none of those which get up on the latter side fly to leeward."

On one occasion, when shooting near Reynolds, Indiana, I met two men who were beating toward me in a very large field. They had an excellent dog and were very good shots. We entered the field at opposite sides about the same time, and when we met I had killed some thirty birds, while they together had not killed over a half-dozen. The birds arose wild be-

fore them, and many of them flew over or past me, presenting good shots, while none of my birds went to them. I made a double shot just before we met, and had difficulty in finding the birds, but they offered the services of their dog, and he soon found and retrieved them, first pointing dead in fine style. They wondered that I should kill so many birds when they found it difficult to get a shot.

In an old note-book I find the record of a snipe which arose very wild before me three times when I attempted to approach him against the wind, but upon making a *détour* and moving upon him down wind, he allowed me to approach very close, and then flew toward me, passing so near that I had to wait for him to get off a suitable distance in order not to miss him or tear him to pieces.

The snipe are easily killed when hit, and seldom fly on after receiving their death-wound, as the partridges often do. They are usually found scattered about on the feeding ground or in small flocks or wisps, as they are termed, containing perhaps a half dozen or more birds.

The rule of silence is of the utmost importance when snipe shooting. There are birds often on the ground which do not get up at the report of the gun, but upon a remark to a companion about the shot or an order to the dog, they may take wing and escape before an empty gun. Slip fresh shells into the gun at once and be always on guard and ready for a second and even a third or more shots. I have repeatedly killed a number of birds before picking up the first or moving from my position.

Bogardus mentions killing on one occasion three

birds at a shot, and says he has several times killed two with one barrel; but such shots are uncommon since the birds pitch about some distance apart. I have made such a shot but once, when I waited until two birds flying toward each other crossed, and, firing just at the right time, killed them both.

On warm, sunny days, the snipe are often quite tame and do not fly far. I was shooting on such a day along a slough in Northern Illinois and had but fifteen charges of shot. With these I bagged fourteen birds—thirteen snipe and one prairie chicken, missing only two shots and killing two snipe with one barrel, as stated. Had I been supplied that day with plenty of ammunition, I have no doubt I could have made a record, since the birds presented easy marks.

The proper gun for snipe-shooting is the 12 gauge, loaded with No. 10 shot early in the season, and No. 9 later, or No. 8 if the birds are very wild. Some writers advise the use of No. 12, or mustard seed, but since there may be a strong wind blowing on the meadows, when such small shot will be badly deflected and the shots are often at long range, I much prefer the heavier shot.

It is well to have a few shells loaded with No. 6 or 7 shot for an occasional mallard or teal; these shells can be used on the snipe if the ammunition gives out.

Dr. Lewis does not regard dogs as of much account in snipe-shooting, "perhaps," he says, "because I never had a particularly good one for this sport—except a retriever." He admits, however, that snipe frequently lie well and suffer a dog to approach within a few feet of them.



SNIPE SHOOTING IN THE MARSHES

W. H. H. 1891

I am much in favor of the use of dogs. The walking is difficult and laborious, the grounds are of wide extent; a well-trained dog can be sent long distances to search for the birds and thus save the shooter many steps. He will point wild birds at long range and retrieve the fallen, and should the birds prove very wild and refuse to lie to him, he can be sent forth to find and move a lot of birds, which are easily marked down, and if necessary the dog can be ordered to heel upon approaching them. Then, too, more than half the pleasure of field sports is the observation of the high bred, intelligent animals. The protective markings of a snipe make it most difficult to find without the aid of a dog, and the shooting is often too rapid for the good marking of dead birds. Snipe-shooting is hard work for the dogs. They get thoroughly wet and muddy, and have earned a rest by the fire before they are put in the kennel for the night. It is important they should be dry, otherwise they may be stiff and useless on the morrow.

The spaniels often used in cock-shooting have been used on snipe. I never so used them excepting on the occasion referred to in Michigan and once in Illinois.

The two bright little spaniels at the dairy-farm rushed out of the house and came to me at the sound of the gun, and since their owner did not object, I used them that day and on several other occasions, and they did excellent work. The ground was peculiarly suitable for their use, however, a good part of it being a long narrow strip between two channels. Starting out with the wind at my back, the dogs ranged well ahead and flushed the birds, which flew toward me,

often passing immediately overhead. A few which went out over the water, returned and pitched quite near me, and having marked them, I went to them at once with the dogs at heel. One day I took a setter in my boat when I left the Star Island hotel, and shot over him with the spaniels at heel. The small dogs made far better retrievers, going through and under the heavy rushes, reeds, and grasses, where the birds often fell; while the setter soon tired himself out, floundering about and trying to move by jumping over them. The Snipe is often called Jack Snipe or English Snipe, but the English Snipe is rarely seen as a straggler to our country.

A light shooting-coat and short trousers, and for me light stout shoes and leggins, make up the costume for snipe-shooting. Many go afield wearing the long rubber boots or waders. I prefer to travel light and get wet, and rely upon an immediate change of footwear at night to prevent a cold.

XLI

THE BARTRAMIAN SANDPIPER—UPLAND PLOVER

THE Bartramian sandpiper of the ornithologists is the upland or field plover of the sportsmen. Wilson named it after his friend William Bartram, near whose botanic gardens on the banks of the river Schuylkill he first found it. Seton says, "ever since Wilson's time this name has been continually thrust into the face of the public, only to be as continually rejected. Upland plover it continues to be in the East, and quail on the Assiniboine." In the West, the bird is the prairie pigeon, and at New Orleans it is the papabote.

It was formerly abundant in New England, and on Long Island and throughout the country west to the Rocky Mountains, frequenting only the high, grassy, open fields. It does not frequent the ponds or streams or ocean shores, and in its habits is more of a plover than a sandpiper. Its food is chiefly insects. It never has the fishy taste so often observed in other sandpipers and plovers, and its flesh is always delicious. Audubon, Wilson, Coues, Elliot, Forester and the rest of the ornithologists and sportsmen are united in praising this bird as an article of food.

Colonel Dodge regards it as one of the best of our table birds, using it as a standard of excellence to which

he compared the young sage-grouse. Forester says: "As far as a *bonne bouche* for the epicure goes, this plover is inferior in my judgment to no bird that flies, unless it be the canvas-back duck, and there, with the chancellor I doubt." As a game bird and object of pursuit, I do not myself care about him. The *modus operandi* does not suit my book or entertain me; nevertheless, there is much skill displayed in circumventing, or as Major Docherty would say, surrounding, this wily bird; and as frequently a very large number may be brought to bag, it is with some persons a very favorite sport. Forester describes at length the method of pursuit in Rhode Island, where the sportsman is driven in a chaise as if to pass the birds, the vehicle being driven in a circle, approaching nearer and nearer until the birds are about to take wing, when the sportsman steps quickly to the ground and fires as they arise.

The upland plover is a bird of graceful outline, brown in color, marked with black and buff. There is but little difference in the appearance of the sexes. The nest is always on the ground in the grass, and there are four eggs.

The flight of this bird is strong and swift, and, since they are usually shot at long range, they are difficult marks. The method of pursuit is everywhere the same, the sportsman being driven in a vehicle of some kind (usually a wagon, buggy, or buck-board in the West) as near as possible to the game, and jumping down to shoot as the birds take wing. They are sometimes shot from the saddle, which, after all, is perhaps the best way of pursuing them. Dogs are, of course, useless, since the birds will never lie to them.

Upland plover are no longer found abundant anywhere excepting in the West and South.

They have vanished entirely from many of the Eastern fields, but are still fairly abundant in Illinois, the Dakotas, and Indian Territory. Mr. Hough says this bird fairly swarms at times on the lower table-lands of Utah and Colorado and overruns Kansas and Nebraska in large flocks; but they do not decoy regularly enough to warrant the use of decoys, and the shooter need not waste time in putting out a flock. In a few instances he shot them over decoys made of dead birds, but could hardly say that they drew in to the flock, nor is it certain that they will pay more than the slightest attention to an imitation of their whistle. They are especially fond of ground that has recently been burnt over.

Before becoming familiar with the gun these birds, like all others, are quite tame. Dr. Coues says he found them so tame in Kansas that they were destroyed without the slightest artifice, and that he had seen them just escape being caught with the crack of a coach-whip. Mr. Van Dyke, in a magazine article, has given us an interesting account of shooting these birds in standing corn. He killed seventeen birds in one field, many of the shots being within twenty-five feet, and made one double shot. This is the only instance I know of where the birds have been walked up and shot at close range. I should have been tempted to buy the field. I doubt if they are to be found anywhere to-day as tame as described by Coues. They learn quickly that man is their enemy, and the fear becomes, I believe, a matter of instinctive heredity.

My own experience with these birds has not been extensive. On Long Island I found them so few in numbers and so wild as to make it hardly worth while to go in pursuit of them. In company with a local gunner who thought he could whistle them, I put in some time with them for want of something better to do, but the birds seemed to me to put an additional mile to the distance between us at each whistle. We were entirely unable to stalk them, and those which came anywhere near our ambush were always, in the drawling dialect of my companion, "Tew wide, tew wide."

In the far West, where I found these birds more abundant and tame, I was accompanied by setters, and, the grouse being abundant, I had no time to devote to birds which did not interest my dogs, and shot but a few specimens.

A friend of mine, an army officer stationed in Texas, informed me that they kill large numbers of them, driving about in an ambulance, and I regretted much that I could not accept an invitation to shoot them there. I have had many a cruise in an army ambulance after all sorts of game, from the lordly elk and buffalo to birds of all sorts, but have never used an army ambulance as a means of approaching the "prairie pigeon."

XLII

BAY BIRD SHOOTING

THE shore birds or waders other than the woodcock, snipe, and upland plover or Bartramian sandpiper may all be considered together, so far as the shooting is concerned, under the familiar title bay birds. Throughout the entire length of our sea-coasts, about the bays, lagoons, inlets, and salt marshes, most of the varieties may be seen late in the spring upon their northern migration, and at the end of summer returning southward with the young of the year.

When going to shoot the bay birds I would advise the sportsman to put up with some local gunner or fisherman, so as to be on or near the ground, excepting, of course, those sportsmen who belong to the clubs, or have an invitation to shoot on club preserves. In addition to the advantage of being on or near the ground the sportsman domiciled with a local gunner will have the advantage of his advice, and without much difficulty will reach the points frequented by the birds. Although he may have a fair knowledge of the habits of the birds, it is all important to know what they are doing in a given locality ; what particular marsh, flat, point, or mud-hole they may be using, and the most likely places for a blind. For several years during my residence at Yale I had an arrangement with a market gunner at Shinnecock Bay. He had a neat and tidy

cabin on a little creek, a short distance from the bay, good boats, plenty of decoys and was thoroughly familiar with every inch of the ground. Of course, after spending some weeks with this obliging and capable man I was able to go out alone on the bay, knowing well every likely place for birds.

Although I regard the shooting of bay birds as the least interesting of all field-shooting, I have spent many pleasant days so engaged; and when the day is fine and the flight good, the sport furnishes excitement enough of a pleasurable kind, and a bag of birds, good, bad, and indifferent; their value depending much upon their food, and many of them too small and insignificant as marks to be worthy of a sportsman's notice.

The method of pursuit at all seasons is the same. When the tide begins to flow the sportsman sets forth for the shooting ground at the margin of some bay or pond, accompanied usually by a professional market gunner or bayman, who sails the boat, puts out the decoys, constructs the blind or hide, and, in fact, does all the work.

The blind is constructed of sea-weed, sedge, or bushes; sometimes a group of small evergreen trees, stuck in the mud, at a favorite place and left standing, so that the birds may become familiar with them. Often a box is sunk in the mud or sand with a fringe of sea-weed or marsh grass about it, further to conceal it. This is the best form of blind, so far as deception is concerned, but it is decidedly tiresome, lying down in a narrow box for hours at a time, especially if the flight is not good. The decoys, wooden or tin images, painted to represent the more common varieties of

bay birds, are set up a short distance from the place of ambush, usually at the edge of the water, some of them in the shoal water, others on a likely little bar or feeding-place. Considerable skill is displayed in setting them so that they resemble a lot of birds, naturally spaced and posed as if feeding.

The sail down the bay in a boat moved by a summer breeze is delightful. As the sportsman listens to the waves splashing against the prow and breathes the salt air, his eyes rest upon the broad marshes, beautiful in tones of yellow, olive, and Venetian red, which stretch away to the horizon, where they blend with the diminutive summer clouds floating in an azure sky. There are a few hay-stacks. There is a cabin here and there, a picturesque fish-reel, and the tall, slim light-house gleams white like the passing sails. Presently the bay-man exclaims: "Mark! Dowitch!" and as a matter of habit, ducks his head and begins to whistle in imitation of the notes of the dowitchers or red-breasted snipe, or it may be the loud shrill, Whew! Whew! Whew! in one, two, three order, should the birds be the noisy tattlers, the yellow-legs. A bunch of birds flying closely together is seen far out over the beach, moving to a feeding ground. There is no danger of the birds coming within range, however. They know the gun too well. The bay-man recovers from his automatic pose of concealment, ceases to whistle, glances at the sail, moves the rudder slightly in his endeavor to make more speed, and the merry waves go slap, slap, slap against the bow, sweet music to the sportsman's ear, far different from the rattle in the streets at home.

Approaching a feeding ground, a variety of birds are seen diligently at work, running about on the muddy or sandy flat and in the shallow water. These sound an alarm and take wing, flying rapidly away. The blind is quickly arranged, the decoys are set out and the boat sails away to a sufficient distance, so as not to alarm the returning birds. As the tide rises the birds feeding in the marshes are driven out and fly about. The bay-man at once knows what variety is approaching, even when they are but small specks on the horizon, and begins to whistle a perfect imitation of their cries. Soon they discover the counterfeits and wheeling all together they come sailing up, flutter a moment over the decoys and often alight among them if permitted to do so.

If the birds are allowed to alight an immense number may often be killed at the first shot, and many more will surely fall to the second barrel as the remnant of the flock flies away.

There may be some excuse for a market gunner with a large family to support (if legally permitted to shoot birds, as he should not be) shooting birds on the ground. His business requires him to get the largest number of birds with the least expenditure of ammunition. There is no such excuse for a sportsman. He should select his birds while they are on the wing and try for a double shot. Since he presumably shoots for sport alone, he would do well to try and make his double shot count for not more than two birds, shooting where the birds are widely spaced instead of where they are most closely crowded together. It is short-sighted in the extreme now that game birds of all sorts

are vanishing so rapidly to try and kill them all at once. I have referred to the legal limitation of the bag to be made in a day, found necessary in many places.

In Vermont—the bag limit is five birds per diem—a single pot-shot puts an end to a legal day's shooting. In Maine the limit of a day's bag is fifteen birds, excepting *sandpipers* (which I suppose is a legal blunder for shore birds), where the bag limit is seventy birds. Club rules and regulations govern the bag on many preserves, and it is evidently to the sportsman's interest nowadays to select his birds and kill only one at a time. Sportsmanship is, I am pleased to observe, more refined and humane to-day than formerly, and the true sportsman seeks to enjoy the sport with the least possible cruelty, killing his birds clean and wounding as few as possible. The shot at the flock where the birds are closest together is sure to wound a number in addition to those killed outright.

There may be many varieties of birds in the bag at night. In Massachusetts and elsewhere it is customary to speak of "big" and "little" birds. The curlews, dowitchers, tattlers, golden and black-breasted plovers and some others rank as big birds, and all the smaller plovers, sandpipers, and sanderlings are classed as small birds.

I am firmly of the opinion that it would be well to draw the line so as to exclude all the little birds from the list of game, with the exception of one or two varieties, such as the pectoral sandpipers, which are excellent food birds. For my part I do not care to shoot at these. After lively work with canvas-backs, mallards,

grouse, partridges, woodcock, snipe and other splendid game birds, the pectoral sandpiper, peep, and oxeye do not suit my gun.

A retrieving spaniel under good command is useful and ornamental in bay bird shooting. He should be under excellent control and lie close in the blind, not winking an eye until ordered out to retrieve. The dogs used for duck-shooting will do very well. I have used setters. The gun should be the 12 gauge; shot No. 8, with a few loads of No. 7 or 6, for the largest birds or any long-range shots. A light sleeveless coat of gray or brown canvas, a hat of the same color and light shoes make up a suitable costume, since the weather is warm. A heavier coat and rain-coat may be left in the boat. A well-filled lunch basket, with a bottle of beer or wine, if you will, and plenty of water and ice, add to the pleasures of the noon-hour, and the ice may save the game on a very hot day.

Forester's advice is to use two heavy guns—10- or 12-pounders—loaded with coarse powder and No. 5 shot. It is needless to say the advice is not heeded by sportsmen. A few such guns may be found today at some of the duck clubs, but they are not fired at peeps.

Difficult shots are sometimes presented at wild passing birds, when the gun should be held well ahead of the mark, as in duck-shooting.

A piece of netting over the hat will keep off some of the mosquitoes and gnats, which are marvellously abundant on good bay bird grounds, and, unless you are pretty thoroughly acclimated, as Forester says, they "will probably use you up to about as great a

degree as you will use up the willets, robins, dowitchers, marlins, yellow-legs, and black-breasts." A fine salt breeze, however, often blows the mosquitoes away, and a cloud of tobacco-smoke may be sent after them.

The migrating shore birds which follow the streams of the interior and are found far from salt water, annually travelling up and down the valley of the Mississippi and its tributaries, are not much shot over decoys. In some places they are quite tame and may be approached within range, and when shot at often will fly away but a short distance, and return again to hover over their dead and dying companions, presenting the easiest kind of shots. As larger game rapidly vanishes more attention is given to the shore birds, and they soon will become wild, and when shot at will fly long distances.

There are many places in the Western States where the shore birds may be shot over decoys in the same manner as on Long Island, but they are more often shot incidentally by sportsmen who are afield for snipe, or as they pass over the duck-blinds. It is in such ways that I have shot most of the varieties in the Western States.

The shore birds are fairly abundant at many of the duck preserves, and no doubt as the ducks come in fewer numbers more attention will be given them. At some of the clubs there are full sets of decoys for shore birds.

XLIII

OTHER SNIPES AND SANDPIPERS

HAVING described the method of pursuit, we now come to consider the birds, to look over the bag, as it were, handling them one by one, to see what birds are worth the powder and to throw out those entirely worthless, which should not have found a place in the bag.

The desirable birds of the snipe and sandpiper family (in addition to the woodcock, snipe, and upland plover, or Bartramian sandpiper), are twelve in number: The dowitcher or red-breasted snipe, the knot, the dunlin, the marbled godwit, the Hudsonian godwit, the greater yellow-legs, the lesser yellow-legs, the willet, three curlews, and the pectoral sandpiper.

All but the last named and the dunlin are birds of fair size, good marks, and fairly good to eat when their food does not give them a too "fishy" taste. The pectoral sandpiper is a small bird, but its flesh is better for the table than that of many others, and on this account it properly finds a place in the bag. This bird is in some localities known as the jack-snipe, a name more often applied to the true snipe (*scolopax*).

We proceed to consider these larger birds in their order, and since all the shore birds, big and small, under existing game laws are considered game, we have listed the smaller varieties in the appendix, suffi-

ciently describing them to enable the sportsman to identify them. The smaller birds are sometimes shot by accident when the gun is fired at larger game, and it has been the practice on many beaches to shoot them for sport for the want of something better when the larger birds are not about.

I.—THE DOWITCHER—RED-BREASTED SNIPE

This bird is about the same in size as the Wilson snipe, has the same long bill and is often mistaken for the latter bird. In the Western markets I have seen them hung up in bunches with the Wilson snipe, often called jack or English snipe. I have found and shot them on the same wet grass fields with the Wilson snipe. Along the shores they are shot over decoys with the other shore birds. They respond well to an imitation of their whistle, and the baymen are quite expert in calling them. As Elliot observes, they are among the last to take alarm should an intruder draw near. Like some of the other varieties, before being too much shot at they will return a second time to the decoys, provided the gunner remains concealed and can imitate their familiar call, and many often fall at a shot.

The long-billed dowitcher is the Western variety and is only found in western North America, breeding in Alaska to the Arctic Coast, migrating south in winter through the western United States (including the Mississippi valley) to Mexico, and less commonly along the Atlantic Coast. Its bill is somewhat longer than that of the Eastern bird, but from the sportsman's point of view the two birds are the same.

II.—THE KNOT

The knot, often called robin snipe, from the resemblance of its lower plumage to that of the robin, is nearly as large as the upland plover, or Bartramian sandpiper. It is found throughout the world, frequenting the shores of all continents. It has been very abundant on the Atlantic Coast and is still more abundant than many of the other waders. The young are often known as gray-backs, or gray-backed snipe.

Mr. Ralph Greenwood, writing for *Shooting and Fishing*, says that at Chatham, Massachusetts, the sanderlings are very plentiful; the turnstone plovers are also abundant and by most gunners are esteemed a step higher than the sanderling. "The knot (red-breast)," he says, "is still more highly esteemed by sportsmen, and as a rule one or two are shot each day by each gunner. Sanderlings are by some considered unworthy of a charge of shot; but the sanderling is generally quite fat, and its flesh, according to my opinion, is superior to the black-bellied plover, the greater yellow-legs, or in fact most of the shore birds." . . . "All strive to shoot the knot."

Other local names for the knot are red sandpiper, may-bird, red-breast plover, and beach robin.

These birds feed like the other smaller and more familiar shore birds, running gracefully away from the on-rushing wave, flying a few feet if necessary to avoid being overtaken by it and following the receding waters, feeding as they go, in a manner familiar to all who have taken a stroll on the beach.

Anderson refers to the knot as a superior bird of ready sale.

The knot flies swiftly, presents a fairly good mark, and comes readily to decoys, especially when the notes of its call, "wheep, wheep," are imitated.

III.—THE DUNLIN

The dunlin of the gunners is the red-backed sandpiper of the ornithologist. They are found throughout America, and have been given the name dunlin from the European bird. In the check-list of the American Ornithological Union this bird is given as a sub-species; the English dunlin, which is an occasional visitor to our shores, being placed as the species.

The dunlin is usually shot by sportsmen and is plump and palatable. Trumbull says no apology is necessary for introducing it in his list, as, notwithstanding its diminutive size, it has appeared many times in lists of gunners' birds, and affords some sport even to adults when bigger birds are absent. Bates, who is most familiar with shore-bird shooting as practised on the Massachusetts coast, says this bird is deservedly a favorite with sportsmen, both from its beautiful plumage and for its edible qualities. They feed on the sandy flats, and in the autumn are easily captured, any boy being able to walk them up, or call them down. Audubon says the bird is considered excellent eating. I shot most of my dunlins when a boy, and can hardly regard them as game birds for adults. Think of a dunlin in a bag with the ruffed or prairie grouse, the partridge, woodcock, snipe, teal, canvas-back, or mallard!

The red-back is often called black-bellied sandpiper;

the cinnamon markings on the back and the large black patch on the belly suggesting the names. It is well to know that in the winter the upper parts are mottled gray and the under parts white. The birds are no longer "red-backs," or "black-bellies." The European bird is a slightly smaller bird; otherwise the same.

IV.—THE MARBLED GODWIT

The godwits somewhat resemble the curlews and are found often associating with them. They are easily distinguished; the bills of the godwits are nearly straight, or slightly curved upward. The bills of all curlews have a decided downward curve. There are in all four godwits found in North America, but the marbled godwit and Hudsonian only are important. The Pacific godwit is an Asiatic bird, found also in Alaska, and as an occasional visitor to California. The black-tailed godwit is very similar to the Hudsonian, and represents the latter in the old world; an occasional specimen has been seen in Greenland.

The marbled godwit is found throughout North America. With the other waders it comes to the Atlantic coast in April or early in May, and returns again in the late summer. The centre of its abundance in summer, and its main breeding-ground, is apparently, says Coues, the Northern Mississippi and Eastern Missouri regions and thence to the Saskatchewan; for, unlike its relative (*L. Hudsonica*), it does not proceed very far north to nest. It breeds in Iowa and in Minnesota and Eastern Dakota, where I observed it in June, and where the eggs have been pro-

cured. It is found with the field plover and curlew nesting on the plains, and Dr. Coues says that in its habits at this season it most nearly resembles the curlew, and that the two species, of much the same size and general appearance, might readily be mistaken at a distance, where the difference in the bill might not be perceived. The godwit is wild and difficult to approach. It is shot over decoys, and, like many other varieties, these birds return again to the dead and dying after a shot has been fired. They are often called red curlew, straight-billed curlew, marlin, and have other local names.

V.—THE HUDSONIAN GODWIT

This bird is somewhat smaller than the preceding. It is found upon its migration about the Eastern coast, but is never abundant. It is found also in the interior, but does not go to the Pacific coast, except in Alaska. I have seen the godwits only in Dakota, and have shot but a few of them, usually without decoys, when in the pursuit of other game. I have approached quite close to them when they were feeding on the margin of ponds in the West, and do not regard them as difficult marks.

VI.—THE GREATER YELLOW-LEGS

The greater yellow-legs and the lesser yellow-legs are identical in pattern and color. A photograph of one would do for the portrait of the other were there nothing to indicate the size. They are different birds, although one might be taken for the young of the other. From their loud, shrill whistle, sounded in notes, often repeated, they are called tattlers, yelpers,

and telltales. They often come whistling past the gunner when he is shooting wood-duck or teal in September, and upon such occasions and when snipe-shooting in the spring I have killed many of them. I had a chance to observe them quite closely a year ago in the autumn, when sketching in the Ottawa marshes south of Lake Erie. One day I had for some time a lot of these birds quite near me, and there were also in the water beyond mallards, teal, dusky ducks, and some others, all within range, and a number of snipe were boring along the shore. It was just before the shooting season opened, and the birds were on the preserve of the Winous Point Club.

The yellow-legs are marked with black and white. The head, neck, and under parts are white streaked with black. The lesser bird is about the size of the Wilson snipe; the other is considerably larger. They are easily distinguished by their long legs, which are of a bright Naples yellow. They are found along the sea-shore and were formerly abundant, but they are now far more numerous about the Western ponds than in the East. They come well to the decoys, especially when the gunner is familiar with and can imitate their whistle.

The greater yellow-legs breeds in the far North, occasionally in the United States. I have shot these birds in many places, more often in Ohio, Indiana, Illinois, and Dakota when in pursuit of other game. I have not the patience required to sit in a blind and whistle bay birds when there are snipe on the meadows or woodcock in the woods or wood-duck or teal to be "jumped" out of the wild rice. I much prefer

to move about and go in pursuit rather than lie in ambush.

I was once shooting snipe in Indiana on some excellent ground owned by a club of Chicago gentlemen, and observed four of the larger yellow-legs on a muddy bar at the upper end of a diminutive island in a shallow prairie river. I waded to the lower end of the island and moved forward—slowly until within easy range of the birds, and not caring much whether I bagged them or not, I determined to try for three with two barrels (on the wing, of course). As they arose, two of the birds flew toward each other, and waiting until they were close together, I killed them both and shot a third bird with the remaining barrel. The survivor went off rapidly, whistling loudly; but when I whistled to him he missed his companions, and returning, passed within range, and firing a little ahead of him, I tumbled him into the river. The birds were unusually fine, large specimens and looked well in the bag of snipe.

The fishy flavor of these birds when taken on the coast is not so apparent in the Western birds, but I do not care much for them in the field or on the table. They are not difficult marks. They have always brought good prices in the markets, are always taken by sportsmen, and are properly ranked with the shore birds of the second class, giving first place always to the woodcock, snipe, and upland plover.

VII.—THE LESSER YELLOW-LEGS

All that has been said of the greater yellow-legs applies to the lesser, which is much more abundant everywhere. I have seen these birds in the West often

too tame to need decoys, and on several occasions I have shot at them until the gun became hot, and have made large bags without concealment of any kind.

One day when shooting sharp-tailed grouse, as I approached Fort Totten, where I was visiting an army officer, I saw an immense number of these birds about the muddy margin of a shallow alkaline lake. As those nearest took wing, I fired, killing a half-dozen or more with my two barrels. The many flocks about the lake all arose at the report of the gun, and the air was full of yellow-legs, many wheeling past or overhead, and circling about, often alighting again within range. I was in excellent practice, and shot rapidly, making few misses. My setter kept busy for a time retrieving, and often brought several birds at once. I was entirely too fast for him, however, and brought down ten or a dozen birds while he retrieved one. After galloping about in the mud in pursuit of a wounded bird with another in his mouth, he became disgusted with the sport and retired to the grass and declined to retrieve more. It occurred to me that I had all that could be used at the garrison, and I ceased firing, while there were still many birds flying about within range. I gathered several dozen birds which fell where the walking was good, but had to abandon as many more which fell in the deep mud, the dog positively refusing to be a party to such slaughter.

Although I often saw these birds very abundant, I did not again shoot at them, since they were not as desirable as the grouse, mallards, teal, gadwalls, spoon-bills, and other ducks, and the snipe which were often flushed about the margins of the ponds.

VIII.—THE WILLET

There are two willets so much alike as easily to be mistaken. The Eastern variety is found from the Atlantic westward to the Mississippi. The Western variety inhabits the western portion of North America to the Mississippi. The latter bird, according to the ornithologists, is a little larger and somewhat grayer. Elliot says that in winter the two forms cannot be distinguished from each other, save possibly by the longer bill of the Western variety, "though this is not always reliable." As I have had occasion to remark, the sportsmen are not much in sympathy with ornithological variety-makers, especially when the differences are slight. From the sportsman's point of view the Eastern and Western willet are the same. There is really a much greater difference in the gunners than in the game, and the willets and other slightly shaded varieties of game birds, glancing back at their human enemies, might with more propriety classify them as blondes, brunettes, or red-heads.

The two willets are found often in the same locality. They are among the largest and best of the bay birds. Second in size only to the godwits and curlews, their length is about sixteen inches.

They are, when pursued at all, very wild and wary and difficult to approach. They are more often shot when flying past the decoys set out for the other waders, and do not come to the decoys nearly so well as many of the others. The name is derived from the noisy call of the bird. It is often called "pil willet."

IX.—THE LONG-BILLED CURLEW

This bird is the giant among waders. It is nearly three times as large as the Wilson's snipe. The long-billed curlew fly in an angular order, like the wild geese, a single bird at the point of the angle leading. Their loud, shrill cries are well imitated by the professional bay-men and some sportsmen, and they come readily to the decoys when the call is well imitated. As they come flapping up or sail on extended wings they present a large, easy mark similar to ducks hovering over decoys, but far easier. Elliot describes killing a pair of these birds from a flock passing overhead, when the others returned to their wounded companions, flying over and around them, and says repeated discharges failed for a time to drive the unwounded away. The flesh has the same sedgy or fishy taste when these birds are taken along shore, but is better when they are shot on the Western prairies.

X.—THE HUDSONIAN CURLEW

The Hudsonian curlew, popularly known as the Jack curlew, nests in the far North and returns to the States with the other waders toward the end of summer. It is not numerous anywhere and is the least abundant of our curlews. It has many local names, such as crooked-bill marlin, whimbrel, horse-foot-marlin, etc. They are fairly good to eat and are always shot by sportsmen when the opportunity is presented, as it now rarely is. Elliot says the birds were once abundant in New Jersey.

XI.—THE ESKIMO CURLEW

This is the smallest but most abundant of the curlews. Its bill, like the others, is long and curved downward. It is much like the Hudsonian, only smaller, the length of the former being seventeen inches and of the latter about thirteen inches—the length of the woodcock, it will be remembered, is nine and a half to ten inches.

The Eskimo curlew, when migrating in the spring and early autumn, are found in immense numbers on favorite feeding grounds in the Missouri region. Dr. Coues saw numerous flocks containing fifty to several hundred birds on the prairies along the road between Fort Randall and Yankton. They were scattered everywhere, dotting the prairie with the Bartramian sandpipers and golden plovers in large loose flocks, which, as they fed, kept up a continuous low piping noise as if conversing with each other.

They respond to the whistle and come well to decoys. They are rapid flyers, but fly so closely together that it is possible to kill quite a number at a shot. The smaller flocks decoy better than the larger. They are excellent table birds when found on the Western prairies, since, like the Bartramian sandpiper, they are fond of grasshoppers, which, as we have observed, are excellent food, giving even to the sage-grouse a fine flavor. They also eat berries and small snails. They are more abundant in the West than on the coast.

XII.—THE PECTORAL SANDPIPER

I have no hesitation in admitting the pectoral sandpiper to my list of game. Although much smaller

than the other wading birds excepting the dunlin, he is a good mark and is very good to eat. He feeds in the salt meadows, lies to the dog, and can be walked up and flushed like upland birds, a game-like quality sufficient to admit him to the list. Audubon pronounces his flesh juicy and well-flavored. When procured late in the season, he says, "I think it superior to any of our shore birds, and I have partaken of it when I have thought it equal to any of our upland game."

These sandpipers do not associate much in flocks like the others. They are found scattered about feeding upon the meadows singly or in pairs. They are not very wild birds, and when approached arise and fly but a short distance, uttering a single "tweet." They sometimes, when much startled, spring quickly with loud repeated cries, and make off in a zigzag course much like the common snipe.

I have had considerable sport with these birds on the salt meadows walking them up without a dog, and on several occasions I have made a good bag of them with a few of the other varieties. No. 10 is the proper shot, since they are small marks, and the shot is usually at close range.

These birds are met with in the interior as well as along the coast. Elliot observes that they do not seem to go southward by way of the coast line of California, probably migrating inland to Central America and so onward to Chili by way of the shore.

XLIV

THE PLOVERS

THERE are, including the European golden plover, an occasional visitor, and several other extra limital birds, fifteen plover on the check-list of North American birds. Most of these birds (although it is lawful everywhere to shoot them at certain seasons) are undesirable as marks, on account of their size, and their flesh is not sufficiently good to warrant the killing. I would strongly urge sportsmen to spare the ring-plover, the little ring, the piping, the snowy, and semi-palmated plover and the others—even the familiar kill-deer, which I must confess has more than once called for a shot from my gun as he sailed overhead uttering the shrill whistle which gave him his name.

The plovers are distinguished from the snipes and sandpipers by their bill, which is more pigeon-shaped. The bill of the snipes and sandpipers is longer and slimmer. We have observed that the best of all the plovers of the sportsmen is not a plover but a sandpiper.

Of the true plovers, the only birds worthy of the sportsman's attention are the American golden plover and the black-bellied plover, the European golden plover, a rare visitor ; the Pacific golden plover, which is, from the sportsman's point of view, the same as the American golden plover, and the mountain plover. Of these in their order.

THE GOLDEN PLOVER

The golden plover, familiarly known in the West as golden back and bull-head, takes its name from the yellow or golden dots on its back. It is a fine large bird with black breast and head; the forehead white and a white stripe over the eye. The upper parts are brownish black, beautifully mottled with yellow and white. The golden dots render it unmistakable.

Shortly after the arrival of the snipe, in the spring, one may look for the golden plover. The date of their arrival in the Northern States is dependent upon the weather. Not a bird will be found until the frost is well out of the ground. Many birds usually arrive in April, but, as Mr. Hough says, the first of May can roughly be called their date. By the last of that month they have departed for their breeding grounds in British America and north to the Arctic shores. Before they have left us they have paired, and it is without doubt wrong to shoot them in the spring, and the shooting at this time should be prohibited by legislation. I have had excellent sport with these birds when snipe shooting in the spring on the Western prairies, when the birds were so abundant as to seem to need no legislation; but they come each year in greatly diminished numbers, and are seen no more to-day in some places where they were very abundant a few years ago. The salvation of this bird depends upon the stopping of the spring shooting. The plover return to the United States the last of August or during September. They are found in flocks, often containing many birds, and as they run about on the

prairie, they appear as large as pigeons (larger than they are), and they are called prairie pigeons in some localities. This name is, however, more often applied to the field plover or sandpiper.

The golden plover is shot by the bay-men and sportsmen over decoys, as it travels north and south along the coast, and it responds well to an imitation of its whistle, which Mr. Hough has attempted to give phonetically as a keen "Whit! wheet—wheet—whit!" There are plover calls on the market which give a fair imitation of their whistle, but the market gunners do not rely on these.

Elliot says the golden plover goes mostly by the sea-coast in its migrations; or, if the weather be favorable, far out at sea, making but few stops in the long journey. I have never seen any such numbers about the coast as I have observed on the Western prairies, and I am quite satisfied that fully as many and in fact more birds pass inland across the continent.

In Illinois and Indiana a few years ago the number of plovers to be seen on the prairies was truly remarkable. I have seen flocks containing hundreds of birds scattered about in every direction and flying from one feeding ground to another.

Plover shooting over decoys is still a favorite amusement with many Western sportsmen. It is almost impossible to stalk them without the aid of a horse or vehicle. I have repeatedly, when snipe shooting, attempted to walk near a flock of these birds when they appeared not very wild, but notwithstanding I resorted to the artifice of seeming to pass them, as one would drive for them in a vehicle, they always took wing just

before I came within range and seemed to estimate the distance to a nicety, continuing to run about and feed until the last safe moment.

The sportsman going out to shoot golden plover should observe, like the duck shooter, what the birds are doing. Upon a careful survey of the ground it will be apparent often that the birds are moving in certain directions, flying from one feeding ground to another and passing over certain fields, and it is on the line of flight or on some favorite feeding spot that the decoys should be set out. The decoys may be had at the gun stores and are usually made of wood or tin, with a peg to stand them on in the mud; the dead birds can be used to advantage, standing them up among the decoys by means of sticks, as the duck shooter often sets up his ducks. A few sticks carried in the shooting-coat for this purpose will be found useful on the prairie where it is impossible to find any.

I have more often shot these plovers from a blind, getting under their line of flight and without decoys, but much larger bags can be made with decoys—especially if the sportsman is skilful in calling or whistling the birds.

I was once shooting snipe in Northern Indiana and finding but few birds, I decided to devote the day to the golden plover, which were exceedingly abundant, flock after flock crossing the same field in rapid succession. Taking my stand at a fence with a few bushes and small trees as a blind, I ordered the dogs down and soon had some rapid shooting.

The flocks were not large and at no time did I kill many birds at a shot, but I repeatedly killed two or

three, more often one, or one with each barrel, and it was not long before I had a very fine bag of birds. My shooting companions, when we met at the village hotel, expressed surprise that I should have so many plover. They knew I had no decoys and was a poor hand at calling. They, too, had tried for the birds all day with no success, having endeavored to stalk them. When I explained my method of letting the birds come to me on their line of flight, they determined to try it, and had no trouble in getting some excellent shooting.

Upon another occasion, when out for snipe, I observed as I walked down a road that the plover were crossing it at a certain point, and stopping in the fence corner with little concealment I had some very good shooting.

In Texas and some of the other prairie States these birds are shot by stalking them in a vehicle or on horseback in the same way already described for taking the upland plover or Bartramian sandpiper. On the vast prairies where there are few fences this is very good sport, but a horse which can jump a wire fence is better than a vehicle, which must often necessarily make a long detour to follow the birds to an adjoining field.

Since I have joined the ranks of those opposed to spring shooting I do not expect again to shoot much at plover. In September, the prairie-grouse, the snipe, the wood-duck, and teal are more inviting, and I then have no time to learn to whistle the golden plover or study the setting of the decoys.

Hough well says that to be successful you must be an expert plover-shooter, and to be an expert you must

call the birds. This requires constant practice in the field, and the proficiency with which one can execute the call is about the measure of his success at golden-plover shooting. It is the easiest thing in the world to make a mistake in setting out the decoys which shall cost you half your birds. You do not want the wind to blow across your blind to the decoys or across the decoys toward your blind. The decoys must be at one side of the blind. Suppose the wind is blowing from the east to the west, you put out your decoys to the north of your blind and not to the east or west. The decoys should be set out in a longish line, rather wedge-shaped, point down the wind and all at easy gun-range—not too close. Hearing the call the birds swing, cross over and come up wind to alight among the decoys.

The same writer advises the sportsman not to fire at the leading birds, but at the "middle-oblique" of the flock, when the charge will rake the flock. As the remnant double up, he says, the second barrel held till the right time goes far toward completing the work. At the sound of his deceitful whistle the birds will often return again to the decoys, and twenty, thirty, or forty birds may fall to your gun from one flock. If you get only six or eight, your friend and possible companion, the market-gunner, would laugh at you. Two hundred in a day, 1,000 in a week—you can do this in Northern Illinois even to-day if you have the natural heart for butchery.

I have already advised the shooting for single birds when shooting at a flock of bay birds, and the same shot should be made by sportsmen at golden plover

on the prairie. I must admit the pot-shot where the birds are thickest is most tempting to a novice; but it is butchery like this which causes the birds to vanish from localities where they were most abundant.

The proper gun is the twelve-gauge loaded with No. 8 shot, or No. 7 if the birds are wild. I would advise the taking of shells loaded with both numbers, and a few with No. 6 for a passing teal or wood-duck.

A friend with whom I used to shoot snipe and plover once saw a market-gunner arise from his blind and throw his felt hat at a large flock before firing. The birds bunched as they wheeled in a fright, mistaking the hat (in the opinion of the market-gunner) for a hawk, and an immense number was killed with two barrels.

The European golden plover is very similar to the American; so closely does it resemble it in fact that the birds might be mistaken easily. Dr. Coues gives it as his opinion that our golden plover may always be distinguished by the color of the lining of the wings, which is pure white in the European and ashy-gray in the American species. The Pacific golden plover has the same habits and closely resembles the American golden plover. The only difference is its smaller size and "more golden hue." With such slight variations the sportsman has nothing to do.

THE BLACK-BELLIED PLOVER

This variety is not infrequently mistaken for the golden plover, but can easily be distinguished, as Elliot says, at all ages by its having the axillary plumes (the long feathers growing from the armpit and seen under-

neath the wing) black; whereas, in the other species, these are white. This bird arrives at the same time with the golden plover, passing northward in May and returning in August or September. Elliot says that these birds are more numerous along the sea-coasts, but this seems to me to be incredible, since there are legions of them at times in Kansas, Nebraska, and the Dakotas.*

Along the coasts the birds feed in the salt marshes and about the flats and ponds, their food being insects and shell-fish, which imparts the fishy flavor to their flesh. On the Western uplands, where they feed on grasshoppers, these birds are excellent for the table.

These birds come well to the decoys and are shot with the golden plover, and that which was said with reference to the shooting of the golden plover applies equally well to them.

THE MOUNTAIN PLOVER

This bird is a true prairie plover, never resorting to the beach, but dwelling upon the plains away from the water, "preferring the grassy districts"; and is sometimes found in sterile tracts covered with sage-brush. It is very numerous in New Mexico and Arizona and Southern California. It feeds upon insects, such as grasshoppers, crickets, beetles, ticks, and possibly worms, and is often fat and in fine condition. This bird presents a fair mark and is good to eat, and it may be considered game, but it is of little importance, since it is found in localities where much better birds are abundant.

The other plovers, of no importance to sportsmen,

* See Appendix, No. 95.

excepting to those who shoot only on beaches where everything larger has about been exterminated, are the ring-necks or semi-palmated plovers, small migratory birds which are found usually on the sandy shores, living on minute insects and shell-fish, and in the interior about the margins of ponds and rivers. They run away frequently as one approaches, or fly for a short distance and at once begin feeding again in a most unsuspecting way. The European ring-neck and the little ring-plover are European species. The Wilson's plover is similar to the semi-palmated, and is found on both coasts from Long Island and California south. The piping plover is another shore bird somewhat more wary. It runs with great rapidity and flies short distances. When fat it is fairly good to eat. I have shot them with the others for want of something better to do, but should not regret seeing them protected at all times by law. The belted piper and the snowy plover are small varieties found in the West, the latter in the far West, from Salt Lake to the Pacific, and is common on the sea-coast of California.

XLV

OTHER VARIETIES OF SHORE BIRDS

THERE are twelve species of avocets and stilts throughout the world. But two are found in North America—the black-necked stilt and the American avocet.

Avocets and stilts are easily distinguished by their great size, long legs, and bills which curve slightly upward, and which suggested the technical name (*Recurvirostra*). The legs of the stilt are a rosy lake, or flesh color. The legs of the avocet are pale blue.

AMERICAN AVOCET

The avocets are fairly abundant in the West, but are rare birds in the Eastern States. They are occasionally found in the markets with other game from the Mississippi valley. I have observed them on the plains when shooting sharp-tailed grouse. On one occasion before daybreak I drove out from Fort Totten, N. D., to a small lake which was much frequented by geese, brant, and many varieties of ducks. The plain was some feet higher than the water and bluffed down to a muddy beach. When the first light of day was showing in the east I had taken my position just above the muddy flat, and the gabbling and quacking below promised an excellent shot; but, before it was light enough to shoot, all of the geese and ducks flew

off with a roar of wings and a noisy dripping of water. I remained, hoping some of the ducks would soon return, and as it became light I observed an immense number of shore birds at the edge of the water. There were tattlers, the big and little yellow-legs, sandpipers, plovers of all sizes, and among them were several avocets, easily distinguished by their large size. Like feathered giants they stalked about among the smaller birds.

I could easily have killed a number, but I had heavy loads in the gun and was really out for geese, so did not disturb them at their breakfast. I remained some time to observe them, and then slipped down the bank to arrange a blind nearer the water; the avocets flew out over the lake a short distance, and returning, alighted near by, elevated their wings for a moment and went to feeding again. It was a warm Indian summer day, the sun shone bright on the placid waters and the geese and ducks did not move about much. My companion went to sleep in his blind, and a pair of mallards which settled to his decoys were undisturbed until I fired a long shot at them from my ambush. My companion jumped up in time to see the mallards depart, and the shore birds whistled and peeped, and ran or flew short distances, soon to return to their favorite feeding spots. I shot a few ducks during the day, but did not point the gun at the shore birds. How different the conditions East and West! How long would a big avocet remain unmolested near a blind on the Atlantic Coast?

The avocets are good swimmers, and when wounded often take to the water. The flesh is fairly good, about

equal to that of the other shore birds of the second class, such as the tattlers.

THE BLACK-NECKED STILT

This bird evidently was named for its legs. Like the avocets, the stilts are more abundant in the West than in the Eastern States. Stilts and avocets are often seen feeding together.

The flight of the stilt is swift and easily maintained, and in its progress it exhibits "alternately the upper and under side of the body, like many other species of the *Limicolæ*, affording a pleasing contrast from the black of the back to the pure white of the under parts, brightened by the long lake-red legs extending beneath and beyond the tail."

Stilts are usually found about the margins of bays and ponds or streams; wherever they are found in any numbers there seem to be many other waders, and most likely some of the avocets. I have seen them only in the West, where they were by comparison of no importance to a sportsman. Their flesh is about equal to that of the others whose company they keep.

THE PHALAROPES

There are three American phalaropes: the red phalarope, the Northern phalarope and the Wilson's phalarope.

The name is of Greek derivation and means "coot-foot." The feet of the phalaropes are said to resemble those of the coot.

The two birds first mentioned are about the size of the kill-deer plover. The Wilson's phalarope is a little

larger, the female measuring nine and a half to ten inches, and being a trifle larger always than the male. All phalaropes have this striking difference from other game—the females are not only the larger and handsomer birds, but “do the courting while the male performs most of the duties of incubation, thus affording an instance of the exercise of ‘woman’s rights’ in the fullest degree.” The female goes through all the motions of love-making and pursues the male about as he runs or flies from point to point, and, finally having compelled his attention, the nest is constructed, the eggs are laid and the male is left to sit upon them, while the female swims about upon the surface of the water and has the general good time which the male of other birds is supposed to have while the female is engaged in incubation.

The red phalarope and the Northern phalarope inhabit the northern portions of both hemispheres, migrating southward in the winter; the Wilson’s phalarope is distinctly a bird of the New World, and is said to be more of an inland species than the others, being very common in the Mississippi valley. The phalaropes are all good swimmers, and are often seen on the water.

The phalaropes fly swiftly in flocks, and it is not a difficult matter to kill a number at a shot. The gun should be held well ahead when the flock is passing at a distance. No. 8 shot is the proper size.

The Wilson’s phalarope does not go as far north as the others, and is said to breed in Northern Illinois, Iowa, Wisconsin, Minnesota, the Dakotas, Michigan, and Oregon. It is recorded as a summer resident in

Northern Indiana and in Western Kansas. Nelson says it is the most common species in Northern Illinois, frequenting grassy marshes and low prairies, and is not exceeded in number even by the ever-present spotted sandpiper. While it was one of the most common birds in the Calumet region it is now becoming scarce.

There is little or nothing in the books about phalaropes as objects of pursuit or as food. A recent writer in a magazine says, "Although these birds do not come distinctly within the limits of my definition of game, I never saw a sportsman who would not shoot one, and should consider him lacking in mental capacity if he did not." This may all be well enough on the Massachusetts coast, but it is not so in Dakota, where the ducks and geese are sufficiently abundant to call forth the humorous statement in a local paper that their shadows interfered with the growth of the crops.

For my part I should be willing to see these pretty little birds legally excluded from the game list and left to pursue their strange courtship and rear their young beside the ponds, and to swim about on the water and feed along the shores.

BOOK IV

CRANES, RAILS, AND REED BIRDS,
WILD PIGEONS AND DOVES

XLVI

THE CRANES

THERE are two common varieties of crane in America, the white or whooping crane and the brown or sand-hill crane, and a smaller crane known as the little brown crane, which is very similar to the sand-hill. They are all very wild and wary birds, most difficult to stalk, but come well to decoys set out on their feeding grounds.

An occasional crane is shot by a sportsman from his duck-blind, but there are a few places where stands of decoys are kept for these birds. Mr. Sidney Southwick, writing for *Recreation*, says: "The sand-hill or gray crane is fast coming into favor as a game bird on the big prairies of the Northwest. Indeed it already takes rank in many localities as the equal of the wild goose, not only as a game bird, delighting the eye and the heart of the sportsman, but also as a table delicacy of excellent flavor. In October they come down upon the wheat and corn fields of Minnesota, Dakota, Northern Iowa, and Nebraska in immense droves. Indeed they frequently alight in the fields of unhusked corn in such destructive throngs that the farmer is compelled to go forth musket in hand to the defence of his crops. The sportsman, however, has no complaint to offer at this state of affairs, and he is a far more dangerous

enemy to the sand-hill than is the blustering crop-owner."

For my part I do not care much for this sport. I have only seen the cranes in sufficient numbers to make it worth while to go in pursuit of them on ground where the best varieties of ducks were abundant, and the ducks are better marks to test one's skill and vastly better eating.

The cranes are large birds, and, as they come flapping up to the decoys or sail overhead, seem to be going much slower than they really are. I do not regard them as difficult marks, but the sportsman must hold well ahead of a passing bird or he will certainly shoot behind him.

I have never tried but once to stalk the sand-hill crane. Upon that occasion we were driving on the plains, when we observed a flock of cranes feeding upon a marshy tract a long distance away. I stopped the driver (a Sioux Indian) and we held a consultation as to the propriety of stalking them. The Indian was quite anxious to try the shot, and asked for a gun and permission to do so. I was desirous of seeing him undertake their approach and was confident of his success, but never having shot a crane I finally decided to try for the shot. Putting a tall bunch of grass or rushes between me and the birds, I worked carefully toward them. They took flight at long range, but the heavy charge I sent after them brought one down with a broken wing. It fell far out on the marsh, which was overgrown with tall rushes, and since I had no dog I was unable to recover it.

Mr. Wells, writing for *Forest and Stream*, says that

he once stalked a flock of white crane on the Platte, using a cow as a screen to get within range.

The sand-hill crane is abundant in the autumn and winter in California, but not nearly so much so as in former years. Many are shot on the prairies and sold in the San Francisco markets. Dr. Maberry says that they are there highly esteemed as an article of food.

It is well for the sportsman to remember that the crane will show fight when wounded, and is quite a formidable antagonist. There are many instances on record when they have attacked both man and dog, and great care should be exercised in approaching them. The quick thrust from the long, sharp bill may cause an ugly wound or put out an eye. It is well to give a wounded crane the second barrel.

The white crane is found in Texas and Florida, and is said to be seen occasionally up the coast as far as the Middle States.

Dr. Coues says: "This tall and stately white bird, of the most imposing appearance of any in this country, I have only seen on the broad prairies or soaring on motionless pinion in spiral curves high overhead. Its immense stature is sometimes singularly exaggerated by that quality of the prairie air which magnifies distant objects on the horizon, transforming sometimes a weed into a man or making a wild turkey excite suspicion of a buffalo. The most fabulous accounts of a crane's size might readily arise without intentional deception. I have known a person to mistake a sand-hill crane for one of his stray mules and go in search; and another enthusiastic teamster once declared that some he saw were 'bigger than his mule team.' Once while

antelope-shooting on the prairie my companion—a good hunter—and myself saw what we took to be an antelope standing quietly feeding with his broad white stern toward us and only about five hundred yards off. We attempted for at least fifteen minutes to flag the creature up to us, waving a handkerchief on a ramrod in the most approved style. This proving unavailing, my friend proceeded to stalk the game, and crawled on his belly for about half the distance before the ‘antelope’ unfolded his broad black-tipped wings and flapped off, revealed at length as a whooping crane.”

I was once shooting mallard on the margin of a Western lake, with an army officer. The day was warm and bright, and, after a short morning flight, the ducks ceased to move about, and we retired to a slight elevation, ate our luncheon, and reclined in the grass to smoke our pipes and tell tales of shooting game of all sorts. A large flock of white cranes arose from the marsh and flew directly toward us, ascending, however, as they came, far beyond our range. When quite overhead, in the azure sky, their white feathers gleaming in the sunlight, they proceeded to go through many graceful evolutions, flying about in a circle, forming sides and crossing over and back and dancing in mid-air to their own loud music. We were much entertained by their performance, and observed them until the exhibition was ended and they continued their flight until quite out of sight.

I have upon other occasions observed these birds feeding about the margins of rivers and ponds, and have tried a long shot at them but never with success.

XLVII

THE RAILS AND REED BIRDS

THE rails are related, ornithologically, to the cranes. There is a decided difference from the sportsman's point of view. Cranes, as we have observed, are the most majestic and stately of our birds, wary and difficult to approach at all times. The rails, on the other hand, are most of them diminutive in size, and all of them arise but a few feet from the gun, literally fluttering out of the grass and presenting marks so easy as to be uninteresting.

The clapper-rail and the king-rail are the two largest birds; the clapper inhabits the salt marshes, being rarely seen in the interior. The king-rail frequents the fresh-water marshes. Two other rails, the Carolina, or sora, and the Virginia rail, are worthy of the sportsman's attention. These are not much larger than sparrows. The rest of the rails might well be spared on account of their insignificance.

The Carolina, or sora, is the most abundant, and thousands are found scattered about, feeding in the reeds, rushes, and wild rice of tide-waters and in the interior. They come in immense numbers to the marshes about western rivers and lakes, and I have shot many of them on the grounds now owned by the Chicago clubs, and at the St. Clair flats, and at many other places in the East and West.

The clapper-rail and the king-rail are much less

abundant, and are usually found at long intervals on the same grounds frequented by the smaller varieties. A bag of one hundred or more of the smaller birds is not uncommon in a day, or on one tide, but I doubt if anyone ever made a bag of any size of the larger birds. I have never killed many of the larger birds in a day.

All the rails have long, slim bodies, and seem to be built especially to move quickly through the rushes and wild rice where they are always found. They run with remarkable rapidity, and it is difficult to put them up. The rails have short, rounded wings and fly with an apparent effort just above the tall reeds, often dropping back into them after going but a few yards. So labored is their flight that it is not easy to understand how they make their long migration north and south. That they are capable of a long-sustained flight is evidenced by their alighting on ships miles from the land.

The rails are the easiest of all marks that fly from the sportsman's gun.

The season for rail shooting is the early autumn. The method of pursuit is everywhere the same. The sportsman takes his stand in a light, flat-bottomed boat, which is propelled through the rushes by a punter with a long pole. The start, on tide-water, is made as soon as the water is high enough to float the boat in the wild rice, and as the boat glides along the birds are driven into the air at short range, and since they are usually very abundant the shooting is very rapid.

Dr. Lewis, who wrote of this sport when only muzzle-loading guns were used, advised the taking of two

guns, since it was necessary to load and fire so rapidly that the gun soon became too hot to load and handle without danger.

Rail shooting is a lazy sport compared to the tramp across fields, but there is a charm about the boat-ride through the tall, waving, yellow rice, down long avenues of open water and across through the reeds, where the punter earns his wages driving the boat and retrieving the birds. The vast stretches of yellow rice harmonize well with the bluest skies and fleecy clouds reflected in the water-ways. The shooting is always rapid. Many double shots are made, and when one fairly has his "sea-legs" on there are few misses.

When I first began to shoot rails I went out with a youthful companion, and we took turns punting the boat and shooting the birds. I quite enjoyed the cruising about in the fresh, salt air, and, not caring much for the game, willingly took my turn at the pole. An occasional shot at a duck added interest to the sport, and I would advise the rail shooter always to have a few shells in a convenient pocket ready for instant use on the larger game. The larger rails are easily killed with the small shot (No. 10, or smaller) used on the soras. Since the shots are all at short range a half-load of powder will be sufficient and less likely to damage other shooters who may be moving about over the same ground.

Dr. Lewis was very fond of this sport, and has given us records of large bags containing hundreds of birds made on one tide. As soon as the water subsides sufficiently to prevent the moving of the boat the sport is of course at an end.

In the West, the shooting, when it is practised at all, is the same. The start and finish, of course, are not dependent upon the tide, but we may go at any time where the water is sufficient to float a boat.

I was once shooting ducks with a friend in the marshes in Northern Indiana. It was in September, and the migrating ducks had not come from the North and the local ducks were quite wild from much shooting. One day when they were not flying well I went off to some good snipe grounds, and my companion instructed his punter to move him about in the wild rice while he shot at the rails. Although most of his shot was too large he made a bag of about one hundred birds in a very few hours' shooting. I have no doubt I could have killed a thousand birds on many Western marshes if the daylight had been long enough and I had cared to do so.

Success does not usually attend the sportsman who tries for the rails afoot. They run so rapidly through the reeds and rice that it is almost impossible to flush them. I have shot them along the western prairie sloughs when snipe-shooting, walking close to the taller grasses in the slough and taking an occasional shot as a rail fluttered out. An industrious little spaniel will flush some birds where the ground is such that he can move rapidly.

There are thousands of the small rails in the rushes of the St. Clair flats, and I often bagged a few of them, driven up by my spaniel, when snipe-shooting.

Few sportsmen in the West, however, make a practice of shooting rails. There are still too many ducks, cock, snipe, sandpipers, and plover, to say nothing of the upland birds.

I have shot an occasional king-rail on the St. Clair flats and on other snipe grounds, but believe I never shot more than three or four in a day. I do not remember ever having missed one. They are even easier marks than the soras, since they are several times as big.

Rails are excellent marks for young sportsmen to begin on. The shots are so numerous that a boy will soon learn to handle the gun and gain confidence in his ability to shoot at flying marks. Mr. Alford, in a clever paper in *The Century*, some years ago, gave us an account of a father giving his boy "a day with the rails."

I have often, when in a duck-blind, observed the rails running about quite near at hand and have seen the little soras run out on the lily-pads floating on the pond hardly a gun-length from my ambush.

Rails have been taken in the South at night by the light of a torch, the birds being struck down by a paddle as they fluttered out of the grass. Eels and catfish are said to prey upon the unrecovered dead and wounded birds.

The cry of the rails is a harsh chatter which suggested the name crake applied to several of the smaller species. When alarmed the nearest rails sound their creaking cackle, which is soon taken up by all the others in the vicinity, and the rattling noise is sounded on all sides. The noise sounds something like kek! kek! repeated rapidly.

When they first arrive the rails are in poor condition, but they soon become very fat and are regarded as excellent food. Dr. Lewis says they are delicious for the table, "in truth we are very partial to this bird,

and when in good condition prefer it to most other kinds of game ; at all events we can eat more rails and partake of them more constantly without feeling tired of them than any other game bird. They are particularly tender, rich, juicy, and delicate, and do not clog the stomach by quantity or satiate the appetite by daily indulgence."

The king-rail is equally good on the table. I not long ago took a lot of them to an excellent cook, and he cooked them after I was seated at the table, and I must say I have seldom eaten better birds. If they would only fly faster and stronger they would be game magnificent.

As the larger birds become scarce the Western sportsmen will, no doubt, give more attention to these birds, and there is a goodly lot of them on all the marshes now owned by the duck-clubs.

The common rail or sora is about the size of a sparrow, and is of a dark bluish-gray color, something like the common coot or mud-hen. The Virginia rail is about the same in size, but is a brown bird marked with yellowish gray and black. The king-rail is four or five times as large, but is identical in color and markings with the Virginia rail. The clapper-rail is about the size of the king-rail, but not nearly so good to eat. The flesh, notwithstanding all the arts of the *maitre de cuisine* to the contrary, says Dr. Lewis, is unusually insipid, dry, and sedgy, and consequently holds out but slight inducements to the epicurean sportsman to interrupt them in their secluded retreats. Descriptions of the different rails, including the little black and yellow crakes, will be found below. Their comparative

size, their pattern and markings, appear in the illustrations.

THE REED-BIRD

The reed-bird of the sportsmen is the familiar boblink, seen in the summer in the northern fields. It changes its plumage and assumes an inconspicuous dress toward the end of summer, and, going south in flocks, appears in the wild-rice marshes where it soon becomes very fat. Dr. Lewis praises its flesh and refers to it as a bird much prized by Philadelphia sportsmen, but for my part I should like to see it protected at all times. It is usually shot with the rails on the same grounds. Reed-birds fly in flocks and it is easy to knock down a large lot of them at a shot; it not being uncommon, according to Dr. Lewis, to kill four or five dozen from a well-directed fire of a double gun. Once, he says, thirteen dozen were picked up, the result of a raking fire poured into a flock from an old fowling-piece that "scattered most confoundedly;" but this, he adds, "was by no means the largest number I have heard of, but I give this record as well authenticated, and within the bounds of credence."

Reed-birds are often taken in nets, and sell well in certain markets.

They are about as good game birds as the smaller rails, but the rails are never seen on the lawn and are only found in the marshes, while the bobolink not only has a cheerful song but is an ornament to the fields, and so I say he should be eliminated from the list of game by legislation.

XLVIII

WILD PIGEONS AND DOVES

SOME years ago in a magazine article I referred to the fact that Forester had excluded all pigeons and doves from his list of game, and remarked that on this point we did not agree. Applying the criterion of a game bird, that he be everywhere shot by sportsmen, and good to eat when shot—the pigeons and doves all appear to be game birds. “Swallows,” I observed, “are excellent marks, for example, but are not used as food, but the wild pigeon and wild dove are highly prized by epicures, and command good prices in the markets. They are, too, swift flyers, and are often taken in a most sportsman-like manner in the stubble and corn, and from blinds. The shooting of the doves in the hemp-fields of Kentucky is a recognized form of sport, and I have heard sportsmen say they prefer doves to partridges. Audubon says their flesh is remarkably fine, tender, and juicy, especially when the birds are fat, and by some is regarded as superior to that of either the snipe or the woodcock. That talented writer, the late Fred Mather, once took issue with me in *Sports Afield*, insisting that Forester was right and that the dove certainly was not a game bird. He went so far as to express surprise that I shot swallows, and made a sentimental defence of the dove.

In reply I called his attention to the fact that there was nothing to warrant his conclusion that I shot swallows—as a matter of fact, my shooting trips for the most part had been to places where the best birds prevented my using ammunition upon many inferior game birds, which would be, however, considered prizes in Mr. Mather's neighborhood. *A fortiori* I had no use for swallows. I also called his attention to the fact that Forester included the tuneful swan of poetry (the bird which he had no doubt observed floating gracefully on many cemetery lakes) in his list of game, and urged that (if sentiment were to govern) he first strike the swan from the Forester list. President Harrison about that time had been shooting swans as the guest of one of the clubs at Currituck.

As a matter of fact the dove is a pugnacious bird not deserving of sentiment, and no more tame than the partridge or Bob-white is at certain seasons. Although doves may occasionally nest in an orchard near the house, in the early autumn they are soon seen flocking together and feeding on distant fields where the sportsman will find it difficult to stalk them, and by no means easy to shoot them from ambush. The partridges may be found equally tame in summer, even nesting in kitchen gardens. I have had excellent sport with both pigeons and doves and consider them far better game (both as marks and food) than most of the shore birds or waders.

Dogs, both the setters and pointers, recognize the doves as game birds and often point them in the cornfields when the weeds are sufficiently high for the birds to lie to them. The shooting is then similar to

partridge shooting, a little more difficult, since the doves arise at a longer range.

There are in all twelve pigeons and doves in North America. They are all good game birds, but most of them are comparatively rare, having a limited range, like the plumed and crested partridges.

Only two of these birds are known to Eastern sportsmen, the passenger pigeon, now extinct, and the Carolina dove. The band-tailed pigeon is very common on the Pacific slope. The others are given but little space, since they are only seldom shot by sportsmen, and in fact but little is known about some of them.

THE MOURNING DOVE; CAROLINA DOVE

There is no more reason for calling the common wild dove the Carolina than there is for calling the Bob-white the Virginia partridge. This dove is found throughout the United States, from the Atlantic to the Pacific. In the summer it is quite tame, like the partridge. Doves build their nests in the spring about the farms, often in the orchard trees quite near the house. I had a pair several seasons in an apple-tree not fifty feet from my door. On the great plains of the West the doves, in the absence of trees, build their nests on the ground.

The dove is marked somewhat like the wild pigeon and has the same long wings and tail and flies with great rapidity. The noise made is not a whirring, but a whistling noise, which is more pronounced in the dove than in any other of the game birds, excepting possibly, the golden-eye, often called the whistler. It is of a gray-blue color above and has a dull red breast,

the prevailing tints on shoulders and back suggesting the familiar term, "dove-color."

The doves are migratory in the Northern States and partly so in the Middle States. They are often seen in country roads procuring gravel and dusting themselves. The doves feed on seeds, grain, the smaller acorns, and have been accused of consuming peas in a garden. They use large quantities of gravel, and a knowledge of this need suggests to the sportsman a good place for his blind.

In the late summer and fall the doves resort to the stubble and corn-fields in the North and to the hemp-fields in the South, and soon become very fat and in excellent condition for the table. They are usually seen in pairs early in the summer and should on no account be shot until September, when they are found in small flocks. These combine together into larger flocks when they move southward.

Dr. Coues found this bird abundant in Arizona in summer. A friend and shooting companion in Colorado informed me that they often had fine sport with the doves in the early autumn, but we were after larger game and I did not shoot them there. They are shot by Southern sportsmen as they fly in the morning and at evening, and great numbers are often taken by a single gun. I have had considerable sport when they were abundant and comparatively tame, walking them up in the stubble and corn-fields, and have often seen the dogs point them.

Doves are usually, however, shot from ambush. In the morning and evening they seek the margins of streams and ponds to drink, preferring those where

the gravel is abundant and when the sportsman finds a place much frequented, he may have great sport shooting from a blind.

I once discovered the doves using a gravel point at the lower end of an island which had a few swamp willow bushes within easy range of their drinking place. Using the willows as my blind I concealed myself with a retriever, and soon the birds began to arrive and the shooting commenced. They came in small flocks, more often two or three together, or singly, and as they darted over the high river bank and came down to the island on swift wings they presented difficult marks, and those killed usually fell in the stream on either side of the narrow island. The birds kept coming from the fields on either side for several hours, the shooting was rapid and my retriever was most of the time in the water, but he enjoyed it as thoroughly as I did.

The day was fine, it was September, and there was a suggestion of frost in the shadows and a genial warmth in the sun. At the end of the afternoon I had some twenty odd birds, and my friend, whose gun I heard banging from a point below me on the river, was even more successful and made double my score. The doves were fat and tender, having fed almost exclusively on wheat, and the farmer's wife made for us a pot-pie, putting in a dozen birds. Had Forester or Fred Mather partaken of the shooting and the pie I believe I could have easily induced them to add the dove to their list of game birds.

A few years ago, when shooting partridges on the neck of land between the White and Wabash Rivers, I

found the doves quite abundant and shot many of them. They were, however, but an incident to the other sport. I did not go out of my way to shoot them, preferring to follow the dogs where the partridges were plentiful.

In some of the States the dove is no longer a game bird, being protected at all times by laws passed under the influence of a sentiment which has nothing to sustain it. Our dove does not go about carrying olive branches. He is not the color of doves used as a decoration at funerals and to adorn tombstones. He is no more tame, or friendly, or beautiful than the partridge who whistles "Bob-white." As a songster he is not a success. I prefer the cheery whistle of Bob-white to his mournful note. He flies well, is a difficult mark, and is very good to eat. He is, in every sense, a game bird, but would be better could he be induced to lie more often to the dogs.

THE PASSENGER-PIGEON.

The common wild pigeon, the passenger-pigeon of the ornithologists, is a beautiful bird of a gray-blue color above with a red breast and with bright iridescent feathers on the neck, reflecting red and bronze. It has a black bill and feet of lake red. These pigeons inhabited the continent of North America from the Atlantic to the Great Plains, and from the Southern States to the sixty-second parallel of north latitude in the interior. I made the statement some years ago, in writing for a magazine, that the passenger-pigeons were not found on the Pacific Coast. The editor soon had numerous letters from the Pacific States calling

his attention to the fact that I had made a great error. One of the writers from California spoke of the birds as being a nuisance to the farmers. The editor, like all editors, liking a controversy, published these letters and wrote me a friendly note, saying that my articles had been remarkably free from error, but that I seemed to be in for it this time. I insisted, however, that I was right, and the matter was referred to the Governor of California, who referred it to the Academy of Sciences, and at the last the matter went to the Smithsonian Institution, and the editor mailed me a letter from that authority which said there were no records of the passenger-pigeon on the Pacific Coast. To the average person a pigeon is a pigeon, but there are great differences in these birds, both in size, markings, and habits. I have seen the wild passenger-pigeons so numerous for days at a time that they literally reached from the southern horizon to the northern horizon, like clouds in the sky, and cast similar shadows on the earth. I was reminded of Cooper's line, "You may look an hour before you can find a hole through them."

I have had some excellent sport with the wild pigeons. The pigeons are extremely fond of beech-nuts, and when feeding in the woods of Ohio the flocks would fly from one woodland to another and I shot them usually from ambush as they passed.

It was as difficult to estimate the number of the passing birds as it is for an astronomer to count the shooting stars on an August night. Audubon attempted to count the different flocks one day, but after counting one hundred and sixty-three flocks in twenty minutes

he gave it up as impracticable. The air, he says, seemed full of pigeons and the light of noonday to be obscured as by an eclipse. Multitudes were destroyed, and for many days the entire population seemed to eat nothing but pigeons. The flapping of the wings sounded like distant thunder. Wilson says the noise was so great as to terrify their horses and that it was difficult for one person to hear another speak. He counted ninety nests on one tree.

The wild pigeons vanished suddenly. There has been much speculation as to the cause. The failure of their food, which largely consisted of beech nuts, the overshooting, the trapping, and the robbing of the nests have all been advanced. I am of the opinion that the combination of these causes was necessary to exterminate the pigeons. The netting and the robbing of the nests did the most damage. The shooting, when every firearm in a neighborhood was out, was excessive, and the cutting down of the forests destroyed vast areas of feeding ground. There are a few specimens remaining in captivity. I believe they have been bred in confinement. Would that there were enough to restore the flocks to the woods! Such restoration by the Agricultural Department or the State game authorities would interest me more than the importation of foreign birds.

The wild pigeons were not only used as food, but thousands were taken alive to be used in shooting-matches. Mr. Stephan, of the Cincinnati Zoological Gardens, once saw eight thousand wild pigeons in crates at the Dexter Park shooting grounds to be used as targets in a live-bird shooting-match.

The nets made to capture wild pigeons were often as large as eighteen by forty feet ; they were placed on baited ground and sprung by means of spring-poles. As many as sixty dozen were taken often at a single throw of the net. Those taken in the morning and at evening, says Lieutenant Simpson, were males, and all taken near midday were females. The reason was found when it was observed that the male and female divided the labor of incubation. Meantime the bombardment of guns and weapons, and missiles of all sorts, including sticks and stones, went on, and it is no wonder the race was destroyed.

Wild pigeons fly with a speed almost incredible. Birds killed in the State of New York were found to contain the undigested grains of rice that must have been taken in the distant fields of Georgia and South Carolina, proving that they passed the intervening space in a very few hours. A single pigeon, at full speed, passing a blind, was a more difficult mark than a wild duck. As in duck-shooting, a number were often killed from a flock with the use of both barrels.

I shot pigeons for several years every autumn, or late in the summer, in Northern Ohio. I had one excellent stand in a large clearing overgrown with the Canada thistle and full of pokeberry bushes, upon which the pigeons were feeding. It was a picturesque place, shut in on all sides by forests which had never felt the axe. The thistles grew everywhere among the wild grasses and poke-bushes, and their red plumes, with the white daisies and the yellow mustard, suggested at a short distance a vast garden of flowers. Throughout the clearing, at intervals, stood the tall,

gray trunks of dead trees, and the pigeons flew out from the woods to their branches, and, after surveying the ground for a moment, dropped into the bushes to feed on the purple berries. After observing them for a time at the fence, I noticed that most of the birds came in at one corner of the field and I took my stand there in perfect concealment among the thistles. From my blind I soon saw a flock of pigeons coming from the forest on swift pinions, and as they passed I gave them both barrels and killed several of them. A single bird followed, throwing his weight into his downward flight. But at the report of the gun he fell far out into the thistles. I never made a better shot, since the bird attempted to pass behind my back, and was a right-hander. The flight continued for several hours, beginning early in the day. My shooting at birds coming in alarmed those which had arrived from other directions, and which were on the ground feeding, and these flew up to the branches of the dead trees, and then left for the woods, often passing within range. At times the shooting was very rapid.

Toward the middle of the day the flight slackened, the intervals between the flocks became longer, and, as I sat in my blind and observed the sunlight on that field, I made good resolutions to bring the color-box and white umbrella and leave the gun at home. The predatory instinct is, however, often stronger than the artistic. Good resolutions were often broken, and I decided many mornings—against the umbrella and in favor of the gun.

There was another flight at evening when the birds returned to feed, and in the middle of the day I some-

times startled them in the dense woodlands. I preferred for once, however, ambush to pursuit, since the result of the latter method was a sitting mark. The birds were wild and wary, difficult to approach within range, and when they took wing went through or over the heavy foliage with a noisy rush of wings, but were at most times invisible.

Shooting through an opening in the leaves at a single bird, I was often rewarded with some four or five, which had been unseen in the heavy foliage when the shot was fired. Such shooting will do for beginners, but does not interest those fond of shooting at a flying mark. I had similar sport with the pigeons one autumn in the oak groves of Northern Illinois, shooting on a pass between two groves. They were quite abundant that year in the trees about the ravines in the village of Lake Forest, north of Chicago, and I shot many there without leaving the village.

A small flock of pigeons or a single pair is occasionally reported in some newspaper as having been seen in the Northwest, but it is doubtful if there is a live passenger pigeon at large to-day. There are but a very few in captivity.

The pigeons are gone, but the lesson taught by their disappearance remains. Insufficient legislation, insufficient enforcement of existing laws for bird protection, a lack of public sentiment in favor of the birds, caused the annihilation of this race of food birds.

Mr. Leffingwell well says: "It wasn't done by sportsmen, for no man having the heart of a sportsman could go into a roost of pigeons and strike down the innocent fledgling with a club while its mouth was crying for

food, and its mother circled around it trying to win it with piteous cries to take wing and fly with her away from this threatening danger."

He might have added that it was not the sportsman who spread the nets and sewed the eyelids of the stool-pigeons with silken threads, so they would perform to his liking when tolling their kind to destruction. It was not the sportsman who shipped the birds in barrels to the market, or in crates to the shooting-matches.

THE BAND-TAILED PIGEON.

The band-tailed pigeon is a Western bird, and is found only west of the Rocky Mountains in the United States. It is a very common bird in the woods of Oregon and California, where it feeds largely on acorns. It affords considerable sport to the gunners on the Pacific Coast. It is a large, fine bird, excellent as food, and flies rapidly, arising from the ground with a loud flapping noise like tame pigeons. It goes to the stubble fields for grain, and may be shot as it flies in and out of the fields. The flocks are often large, containing hundreds of birds. When not much shot they are not very wild, but, like other game, they are quick to learn, and soon become extremely wary and difficult to approach.

Dr. Suckly says the Indian name of this pigeon is hubboh—a good imitation of its call—and that he prefers it to the pigeon of the Eastern States.

Dr. Coues found this pigeon in Arizona, but says it is not abundant there.

THE WHITE-WINGED DOVE.

White-winged doves are so called from the white mark on their wings. They are about the same size as the Carolina dove, and afford excellent sport in Arizona. I read recently of over one hundred being taken by a single gun in a day, which is quite too many, but indicates their abundance. The law should limit the bag to twenty-five birds per diem, or perhaps less. The citizens might then occasionally have a dove pie without danger of exterminating the birds. The white-wings have but a limited distribution, and may be said to be distinctly a Southwestern bird. It is remarkable that this particular part of the country should have the greatest variety of feathered game.

THE GROUND DOVE.

This is the smallest of all the doves, being not much larger than a sparrow. It flies swiftly, like the Carolina dove, with the same whistling sound. This bird is distributed from the Carolinas to Southern Arizona and Southern California.

There are several other pigeons and doves indigenous to parts of the United States, but confined to such small areas, or being so few in number, as to be unimportant to sportsmen. These are referred to in the appendix.

APPENDIX

THE following descriptive notes, numbered to correspond with the bird portraits, will enable the reader to identify any bird which he is permitted to kill at certain seasons. The robin and the meadow-lark are legal game in a few Southern States, but the writer does not so regard them.

The popular and technical names are those given in the check-list of the American Ornithological Union, with but few changes. The color descriptions, markings, and measurements are for the most part from the following ornithological works: "North American Birds," Baird, Brewer and Ridgway; "North American Shore Birds," "The Gallinaceous Birds," and "Wild Fowl or Swimmers," three instructive books by D. G. Elliot; "The Birds of Eastern North America," by Chapman, and the works of Audubon, Wilson, Coues, Apgar, Forester, Lewis, Trumbull, and others referred to in the text. I am indebted to *The Auk*, to *Forest and Stream*, *The American Field*, *Sportsman's Review*, *Recreation*, *Outing*, *Shooting and Fishing*, *Field and Stream*, *Sports Afield*, *Out of Doors*, *The National Sportsman*, and other periodicals to which credit has been given. I am, too, much indebted to the American Museum of Natural History, New York, and the Smithsonian Institution, Washington, for many mounted specimens.

BOOK I

THE GALLINACEOUS BIRDS—THE TURKEYS, PHEASANTS, GROUSE,
AND PARTRIDGES.

Note.—Quails are gallinaceous birds, but as we have observed in the text, there are no quails in North America. Bob-white, the quail of many Northern sportsmen, is a true partridge, and is now so listed in the check-list of the American Ornithological Union. Gallinaceous birds are often called Rasoors (Latin *rasor*, a scraper), from their scratching like chickens for food. The birds of this order found in America are classified by the ornithologists as *Phasianidæ*, the turkeys and pheasants, and *Tetraonidæ*, the grouse and partridges.

1. The English Pheasant.—*Phasianus colchicus*.
The Common Pheasant.

This bird is very similar to the Mongolian pheasant (No. 2), but not so handsome, and without the white collar on the neck.

Hab.—England, where it was introduced over eight hundred years ago from China. Recently introduced into many of the United States.

2. The Mongolian Pheasant.—*Phasianus torquatus*.
Ring-neck Pheasant.

Male.—Forehead, deep green; crown, fawn color glossed with green; white stripe over eye; naked skin of sides of head scarlet, dotted with minute black feathers; throat and neck, green reflecting purple; white collar about the neck; back, black with crescentic marks of buffy white; breast, chestnut reflecting purple; tail, long and barred with broad black bands.

Female.—Smaller; similar in shape; yellowish-brown color.

Hab.—Many of the United States, where introduced from China; first on the Pacific Coast, in Oregon.

3. The Wild Turkey.—*Meleagris sylvestris*.

Resembles the common domestic turkey, but is far handsomer. The plumage shines with metallic colors, gold, green, and bronze and reddish-purple predominating. Head and neck naked, red; legs, red and spurred; bill, red; long tuft of coarse bristles pendent from breast of male; tail, dark chestnut. Length, about 4 ft. wing, 21 in. Weight from 12 to 38 pounds, possibly heavier.

Female.—Smaller; plumage less brilliant.

Hab.—Wooded districts of Central, Western, and Southern States, except Florida; west to Texas and Wisconsin.

(a) *Florida Wild Turkey (Meleagris sylvestris osceola)*.

A smaller turkey.

Hab.—Southern Florida.

(b) *Elliot's Rio Grande Turkey (Meleagris sylvestris ellioti)*.

Hab.—Southeastern Texas and Northeastern Mexico.

Note.—The turkey is indigenous to North America alone. This bird is named turkey since it was erroneously supposed to have been introduced into England from Turkey.

See *The Auk*, January, 1899.

4. **Prairie Hen.**—*Tympanuchus Americanus*. **Pinnated Grouse.**

General color brown, barred with black and buff; black tuft of feathers on sides of neck; throat and cheeks buff, throat marked with brown spots; under parts white, barred cross-wise with brown; tail brown; large sac of loose skin, capable of inflation, on neck. Length, 18 in.; wing, 9 in.

Female.—Similar, without neck sac. Length, 17½ in.; wing, 8¾ in.

Hab.—Prairies of the Mississippi valley; south to Louisiana and Texas; east to Kentucky, Indiana, Ohio, Michigan, and Ontario; west through eastern portions of North Dakota, South Dakota, Nebraska, Kansas, and the Indian Territory; north to Manitoba. General tendency to extension of range westward and contraction eastward. Migration north and south in Minnesota, Iowa, and Missouri.

Mr. W. B. Mershon, of Saginaw, Michigan, who goes to shoot in the Dakotas each season, says: Of late the prairie-chickens have increased, and the sharp-tailed grouse have decreased, so on our recent trip, out of ninety birds killed probably three-fourths of them were prairie-chickens.

(a) *Lesser prairie hen (Tympanuchus pallidicinctus)*.

A smaller and paler bird; pattern and markings the same as No. 4.

Hab.—Eastern edge of the Great Plains, from Western and probably Southern Texas northward through Indian Territory to Kansas.

(b) *Atwater's prairie hen (Tympanuchus americanus atwateri)*.

Similar to preceding.

Hab.—Coast region of Louisiana and Texas.

5. **Heath Hen.**—*Tympanuchus cupido*.

This bird has the same pattern, color, and markings as the common prairie grouse, and was until recently regarded as identical with it. Only expert ornithologists can distinguish the birds.

Hab.—Island of Martha's Vineyard. (Formerly Southern New England and parts of the Middle States.)

6. **Sharp-tailed Grouse.**—*Pediocætes phasianellus*.

General color brownish gray. Top of head, neck, and entire upper parts, black, barred and mottled everywhere, except on top of head, with buff, the bars narrow. White spots on the wings, under parts white, spotted with black on the throat and front of neck. V-shaped marks on breast and flanks, fewer and smaller on abdomen. Legs and toes covered with hairy light-brown feathers. Bill, blackish brown. Length, 16 in.; wing, 8½ in. Weight about 2 pounds.

Female.—Same as male, perhaps slightly smaller.

Hab.—Interior of British America, from Lake Superior and Hudson Bay to Fort Simpson.

(a) *Columbian Sharp-tailed Grouse* (*Pediocætes phasianellus columbianus*).

Hab.—Plains of the Northwestern United States and British Columbia to central portions of Alaska; northward chiefly west of the main Rocky Mountains; eastward in Montana and Wyoming; southward to Utah, Northern Nevada, and Northeastern California. Same in pattern and color as the preceding; it would require an expert to distinguish them.

(b) *Prairie Sharp-tailed Grouse* (*Pediocætes phasianellus campestris*).

Hab.—Plains and prairies of the United States east of Rocky Mountains north to Manitoba; east to Wisconsin and Illinois; south to New Mexico. A very similar bird to the others; somewhat lighter; sometimes called "white-belly."

7. **Ruffed Grouse.**—*Bonasa umbellus*.

General color brown. *Male.*—Upper parts varied with yellowish brown and gray, barred with black on back, wings, head, and neck; lower part of back and rump gray, spotted with buff and brown; tufts of long, broad feathers on each side of the neck black, tipped with light

brown reflecting metallic green; throat buff; buff on chest; under parts white, barred with brown; tail gray or yellowish brown crossed by black and buff bars; broad black band near end of tail. Legs feathered to middle of tarsus. Bill, maxilla, black; mandible, horn color. Length, 16 in.; wing, $7\frac{1}{2}$ in.

Female.—Similar; smaller, with small neck tufts or none at all.

Hab.—Eastern Nova Scotia and Southern Canada; west to Minnesota; south in the mountains to Northern Georgia, Mississippi, and Arkansas.

(a) *Oregon Ruffed Grouse (Bonasa umbellus sabini)*.

Hab.—Coast ranges of Northern California, Oregon, Washington, British Columbia. Intergrades with preceding. Similar in appearance and habits.

(b) *Canadian Ruffed Grouse (Bonasa umbellus togata)*.

Hab.—The spruce forests of Northern New England, Northern New York, and the British Provinces; west to Oregon, Washington, and British Columbia; north to James Bay.

(c) *Gray Ruffed Grouse (Bonasa umbellus umbelloides)*.

Hab.—Rocky Mountain region of the United States and British America, north to Alaska, east to Manitoba.

Note.—The different ruffed grouse all have the same habits, and are so much alike as to be the same when pictured in black and white. The slight color differences are local or climatic, and of no importance.

8. Dusky Grouse.—*Dendragapus obscurus*.

Blue Grouse.

General color slaty blue; head dark brown behind, dull rufous on forehead; throat white mottled with black; sides of head black; tail rounded, black and tipped with broad gray band; legs feathered to the toes; bill horn color. Length, 20 in.; wing, $9\frac{1}{2}$ in. Weight, about 3 pounds (1 pound heavier than prairie grouse, sharp-tailed and ruffed grouse).

Female.—Upper parts mottled with black and buff; throat buff; under parts slate gray. Length, 17 in.; wing, $8\frac{3}{4}$ in.

Hab.—From Central Montana and Southeastern Idaho to New Mexico and Arizona; eastward to the Black Hills, South Dakota, and westward to East Humboldt Mountains, Nevada.

(a) *Sooty Grouse (Dendragapus obscurus fuliginosus)*.

Hab.—Northwest coast mountains from California to Sitka; east to Nevada, Western Idaho, and portions of British Columbia.

Said to be darker than No. 8, and to have narrower band on its tail.

(b) *Richardson's Grouse (Dendragapus obscurus richardsonii)*.

Hab.—Rocky Mountains, especially on the eastern slopes from Central Montana, Northern Wyoming, and Southeastern Idaho, into British America to Liard River.

Very similar to other dusky grouse; tail without terminal gray band.

9. Canada Grouse.—*Dendragapus canadensis*.

General color black or grayish black; upper parts gray, barred with black; wings gray-brown mottled and barred with black and brown; under parts black, effectively marked with white; throat black with speckled white border; long white marks on sides; legs feathered to the toes; bill black. Length, 14½ to 16 in.; wing, 7 in.

Female.—Smaller, more brown and gray in color.

Hab.—British America east of the Rocky Mountains and west in Alaska to the Pacific Coast at Kadiac and St. Michaels; southeastward to Northern Minnesota, Northern Michigan, Northern New York, and Northern New England.

(a) *Franklin's Grouse (Dendragapus franklinii)*.

Very similar in size, pattern and color-markings to No. 9; distinguished by the broad white bars at the end of the upper tail coverts.

Hab.—Northern Rocky Mountains from Northwestern Montana to the coast ranges of Oregon and Washington, and northward in British America, reaching the Pacific Coast of Southern Alaska (Lat. 60° N.).

10. White-tailed Ptarmigan.—*Lagopus leucurus*.

Winter, plumage white. Legs and feet feathered.

11. White-tailed Ptarmigan (see No. 10).—*Summer*.

Summer, plumage is mottled brown, black, and gray; under parts white; often more or less white on wings. In spring and autumn the birds are more or less white, as the change from summer to fall plumage, or winter to spring plumage, takes place. Length, 14 in.; wing, 7 in.

Hab.—Alpine summits of the mountains of Western North America from New Mexico to Liard River, British America; west on the highest ranges of Oregon, Washington, and British Columbia.

Distinguished from all other ptarmigan by the white tail.

(a) *Willow Ptarmigan (Lagopus lagopus)*.

Similar to No. 10. White in winter, mottled gray and brown in summer; tail black, extreme base and tip white. Length, 14 in.; wing, 7½ in.

Hab.—Arctic regions. In America, south to Sitka, and the British provinces; breeding ranges restricted to the Arctic and sub-Arctic regions. Accidental in New England (Bangor, Me., and Essex County, Mass.).

(b) *Allen's Ptarmigan (Lagopus lagopus Alleni)*.

Similar to (a).

Hab.—Newfoundland.

(c) *The Rock Ptarmigan (Lagopus rupestris)*.

Similar to (a).

Hab.—Arctic America, except the northern extremity, from Alaska to Labrador and Gulf of St. Lawrence, portions of Greenland, Aleutian Islands.

(d) *Reinhardt's Ptarmigan (Lagopus rupestris Reinhardti)*.

Hab.—Greenland, western shores of Cumberland Gulf, and northern extremity of Labrador.

(e) *Nelson's Ptarmigan (Lagopus rupestris nelsoni)*.

Hab.—In Alaska and some adjacent Aleutian Islands.

(f) *Turner's Ptarmigan (Lagopus rupestris atkensis)*.

Hab.—Atkha, one of the Aleutian Islands.

(g) *Welch's Ptarmigan (Lagopus welchi)*.

Hab.—Newfoundland.

(h) *Townsend's Ptarmigan (Lagopus rupestris townsendi)*.

Hab.—Aleutian Islands, Kyrka and Adak. (Elliot, not in check-list.)

(i) *Evermann's Ptarmigan (Lagopus evermanni)*.

Hab.—Island of Attu. (Elliot, not in check-list.)

Note.—All of these birds from the sportsman's point of view are grouse,—white in winter, gray and brown in summer, and mottled or piebald in the spring and late summer, when the change in the plumage is taking place. I doubt if the most expert ornithologists would agree in naming them were a bag containing them all in the spring or fall plumage presented for identification. Their combined habitat or geographical distribution given above will indicate to sportsmen where they may expect to shoot a white grouse.

12. Sage Grouse.—*Centrocercus urophasianus*.

Top of head and neck grayish buff, barred with black; chin, throat, and cheeks white; throat spotted with black; upper parts light brown or gray, barred with black, dark brown, and gray; tail longer than prairie grouse, twenty feathers graduated to a point; chest gray, barred with blackish brown; bill black. Length, 28 in.; wing, 13 in. Weight, 5 to 8 pounds.

Female.—Similar, but much smaller.

Hab.—Sage regions of the Rocky Mountain plateau, and westward, chiefly within the United States, but north to Assiniboia and the dry interior of British Columbia; east to North Dakota, South Dakota, Nebraska, and Colorado; south to Northern New Mexico, Utah, and Nevada; west in California, Oregon, and Washington to the Sierra Nevada and Cascade Range.

13. Scaled Partridge.—*Callipepla squamata*.

General color slate blue, feathers bordered with black, giving the bird the scaled appearance which suggested name. Head brown or brownish gray; top of crest white, throat pale buff, hind neck and upper parts of back and breast slate blue; wings and back pale brown; bill black. Length, 9½ in.; wing, 5 in.

Female.—The same.

Hab.—Table-lands of Mexico, from the Valley of Mexico north to Central and Western Texas, Santa Fé, New Mexico, and Southern Arizona.

(a) Chestnut-bellied scaled partridge (*Callipepla squamata castaneigastra*).

Similar to No. 16, except more or less extensive patch of chestnut on belly.

Hab.—Northeastern Mexico and lower Rio Grande Valley.

14. California Partridge.—*Lophortyx californicus*.

General color blue; crest black, narrow at base, wider at end; forehead buff; occiput dark chestnut, bordered on sides with black, followed by white line; line from bill to eye white; chin and throat black bordered with white; back of neck, breast, and upper back blue; belly buff; abdomen chestnut; bill black. Length, 10 in.; wing, 4½ in.

Female.—Similar, not so handsome; crest shorter and brown; colors more subdued.

Hab.—Coast region of California, south to Monterey. Introduced in Oregon, Washington, and British Columbia.

(a) *Valley partridge* (*Lophortyx californicus vallicola*).

General appearance same as No. 14; said to be more grayish blue or paler in color.

Hab.—Interior valleys of California and foot-hills of the Sierra Nevada; east to Panamint Mountains, south to Cape St. Lucas.

15. Gambel's Partridge.—*Lophortyx gambeli*.

Top of head chestnut; forehead black crossed by narrow white line between eyes, white stripe behind the eye bordered with black above; throat black bordered with white; upper parts and tail blue; wings with brownish tinge; lower part buff; abdomen black; plume black, feathers wider at ends; bill black; feet and legs gray. Length, 10 in.; wing, $4\frac{3}{4}$ in.

Female.—Similar; throat dark buff; shorter crest.

Hab.—Western Texas, New Mexico, Arizona, Southern Utah and Nevada, Southern California in the Colorado Valley, and southward into Northwestern Mexico.

16. Mountain Partridge.—*Oreortyx pictus*.

Top of head, sides of neck, and breast slate blue; upper parts and wings deep olive brown; crest, long straight black feathers; chin white; throat chestnut bordered with black and white; middle of belly white; tail olive brown mottled with black; bill black. Length, 10 in.; wing, $5\frac{3}{8}$ in.

Female.—Similar; crest feathers shorter.

Hab.—Pacific Coast region from San Francisco Bay north to Washington. Introduced on Vancouver Island.

(a) *Plumed partridge* (*Oreortyx pictus plumiferous*).

Closely resembles No. 16; habits the same.

Hab.—Sierra Nevada (both slopes) east to Panamint Mountains and to Mount Magruder, Nevada; south in the coast ranges from San Francisco Bay to Lower California.

(b) *San Pedro partridge* (*Oreortyx pictus confinis*).

Another similar bird.

Hab.—San Pedro Mountains, Lower California.

17. **Bob-white.**—*Colinus virginianus*.

General color brown, marked with black; throat and stripe over the eye white; top of head and neck dark brown; back, rump, and upper tail coverts brown; breast and under parts white with black markings; bill black; legs and feet gray. Length, 9½ in.; wing, 4½ in.

Female.—Similar; throat and stripe over the eye buff, instead of white.

Hab.—Eastern United States and Southern Ontario, from Southern Maine to the South Atlantic and west to central South Dakota, Nebraska, Kansas, Oklahoma, and Eastern Texas. Of late years has gradually extended its range westward along lines of railroad and settlements; also introduced at various points in Colorado, New Mexico, Arizona, Utah, Idaho, California, Oregon, and Washington. Breeds throughout its range.

(a) *Florida Bob-white (Colinus virginianus floridanus)*.

Pattern and markings the same as No. 17; somewhat darker and smaller bird.

Hab.—Florida.

(b) *Texan Bob-white (Colinus virginianus texanus)*.

Pattern and markings the same as No. 17; smaller and more gray in color.

Hab.—Southern and Western Texas and Mexico.

(c) *Masked Bob-white (Colinus ridgwayi)*.

Head black, mixed with chestnut on top, white line over eye; throat back instead of white; same habits; same whistle. Length, 8½ in.

Hab.—Southern Arizona to Sonora, Mex.

Note.—There are a number of other Bob-whites described by ornithologists as more or less different from No. 17. These are found south of the Rio Grande in Mexico and Central America. The differences are unimportant to sportsmen.

Mr. Rene Bache (quoted in *Sportsman's Review*, May 23, 1903) claims that the partridge Bob-white is easily tamed and that it breeds readily in captivity. The matter is of the utmost importance to sportsmen who are interested in game preserves. Mr. Bache says: "The birds may be kept in flocks at liberty like any other domestic fowl, requiring only to be sheltered during the cold months. Their natural increase is large, the species being remarkably prolific. A few wild birds to start with are easily obtained, and if captured in the early winter may be expected to lay in the following spring and again in the early

fall. The female produces two broods a year, of fifteen or sixteen young ones each, and it is rare for an egg to fail to produce a bird. By slowly removing some of the eggs from the nest, after the first few have been laid, the output can be increased to fifty or even sixty eggs for a season, the extra ones being hatched under a hen. Experiments have been made with incubators for hatching quail (partridge) eggs, and with some degree of success, but the hen serves admirably for the purpose. It should be a hen of gentle disposition and light weight, so as not to smash the treasures confided to her, and a bantam seems to be well adapted for the business." Mr. Bache describes at length the method of rearing the young, but his story would be more satisfactory if it were accompanied with some statement of facts concerning those who have experimented with partridge domestication. A general opinion has prevailed that these birds were *not* easily tamed and that they did *not* breed in confinement. The editor of the *Review*, says, however: "In future years it is probable the breeding of quail (partridges) for stocking depleted resorts will be conducted in a systematic manner by the game and fish commissioners of nearly all the States." Our partridges are far better game birds than the imported pheasants, to which much time and attention has been given. Partridges can without doubt be raised in considerable numbers in a wild state on farms where they are cared for and protected at all times. I should be glad to see the evidence that they can be bred in captivity.

"No person shall shoot at any quail except when they are flying"—Ohio laws, 1902. This would be a good law for all the States. The word partridge should be used in the statute however. Since there are no quails in America a conviction under the Ohio law would be hardly possible.

18. Massena Partridge.—*Crytonyx montezuma*.

Forehead black with white stripe passing upward from nostril; top of head brown barred with black; short, thick crest brown; triangular black patch beneath the eye; head marked with white as pictured; upper parts brown barred with black; sides of breast and flanks dusky black spotted with white, resembling small guinea-hen; bill black. Length, $8\frac{3}{4}$ in.; wing, 5 in.

Female.—Brown, upper parts barred with black, black spots on lower chest and flanks.

Hab.—Table-lands of Mexico, from the City of Mexico north to Western Texas, New Mexico, and Arizona.

BOOK II

WILD-FOWL OR SWIMMERS,—THE SWANS, GEESE, BRANT, DUCKS,
AND MERGANSERS, *Anatidæ*.

19. Whistling Swan.—*Cygnus columbianus*.

Plumage white ; feet and bill black. Length about 53 in. Easily distinguished from Trumpeter Swan (No. 20) by smaller size and by yellow spot near the eye. Young birds for first five years are gray, becoming lighter each year.

Hab.—North America, Arctic regions to Gulf of Mexico.

20. Trumpeter Swan.—*Cygnus buccinator*.

Plumage white ; feet and bill black. Length about 63 in. Distinguished from Whistling Swan by size and weight and by absence of yellow spot near the eye. Young birds gray.

Hab.—Interior North America west to Pacific Coast, Arctic regions to Gulf. Accidental on Atlantic Coast. Breeds in North Dakota and some other Northern States.

Note.—The young swans are fairly good to eat ; as they grow older they are less desirable. To cook a swan :

“ Take three pounds of beef, beat fine in a mortar,
Put into the swan,—that is when you've caught her,
Some pepper, salt, mace, some nutmeg, an onion
Will heighten the flavor in Gourmand's opinion.
Then tie it up tight, with a small piece of tape,
That the gravy and other things may not escape.

“ To a gravy of beef good and strong I opine
You'll be right if you add a half pint of port wine.
Pour this through the swan, yes, quite through the belly,
Then serve the whole up with some hot currant jelly.”

—REV. J. C. MATCHETT.

21. Cackling Goose.—*Branta canadensis minima*.

Same as No. 23, excepting smaller size. Length about 24 in.

Hab.—Alaska to California ; occasional in Mississippi Valley.

22. Hutchins Goose.—*Branta canadensis hutchinsii*.

Same as Canada goose No. 23, only smaller. Length about 30 in. Largest Hutchins goose will rarely equal in size the smallest Canada goose. (Elliot.)

Hab.—Western North America, Mississippi Valley to Pacific Coast ; rare on Atlantic Coast.

23. Canada Goose.—*Branta canadensis*.**Common Wild Goose.**

Head and neck black; triangular white patch on each cheek extending over throat; upper parts brown, the feathers tipped with light brown; rump, tail, and primaries black; lower parts gray, white in anal region; bill, legs, and feet black. Average size, 38 in. Young birds have white cheek patches speckled with black.

Hab.—North America, Arctic regions to Gulf of Mexico, Atlantic to Pacific.

(a) White-cheeked Goose (*Branta canadensis occidentalis*).

Very similar to Canada goose; more or less distinct white collar at base of black neck. Length, 33 to 36 in.

Hab.—Alaska to California.

24. Black Brant.—*Branta nigrans*.

Head, neck, upper part breast, abdomen and tail black; bill, legs and feet black; white collar on neck interrupted behind; upper parts and wings dark brown; crissum, sides of rump, upper and under tail coverts white; abdomen and breast blackish. Length about 25 in.

Hab.—Western North America, Arctic region to Lower California.

25. Brant Goose.—*Branta bernicla*.

Head, neck, breast, back at base of neck, and tail black; patch of white on either side of head; upper parts brownish gray; under parts grayish white; pure white about and under tail; rump brownish black; bill, legs, and feet black. Length, 24–30 in.

Hab.—Eastern North America, chiefly about Atlantic Coast; rare in Mississippi Valley.

26. Emperor Goose.—*Philacte canagica*.

Head and back of neck white; throat and forepart of neck brownish black; feathers on lower part of neck, with a small white spot at tip; back and under parts bluish gray; lower back and upper tail coverts bluish gray; bill pale purplish; legs and feet orange. Length, 26 in. Young: head and neck brownish black.

Hab.—Coast and islands of Alaska.

27. Ross Snow Goose.—*Exanthemops rossii*.

Plumage white, except primaries, which are black. Bill, legs, and feet red. Length about 33 in.

Hab.—Arctic regions to Southern California, east to Montana.

28. Lesser Snow Goose.—*Chen hyperboreus*.

Same as greater snow-goose (No. 31), only smaller. Length about 25 in.

Hab.—Western North America from Valley of Mississippi to Pacific Coast; Alaska to Southern California.

29. Blue Goose.—*Chen Cærulescens*.

Head and upper part of neck white; breast, back, and wings grayish brown; wing coverts and rump bluish gray; under parts white; tail brownish gray; bill pale pinkish; legs and feet red. Length about 28 in. Young, like adult, except head and neck grayish brown.

Hab.—Interior North America, Hudson Bay to Gulf of Mexico; not on Pacific Coast.

30. White-fronted Goose.—*Anser albifrons*.

Head and neck brown, except forepart of head white; back and wings grayish brown, tipped with white; primaries black; rump slate brown; lower parts grayish white; bill, legs and feet orange. Length, 28 in. Young: no white on head.

Hab.—North America; rare on Atlantic Coast.

31. Greater Snow Goose.—*Chen hyperboreus nivalis*.

Plumage white except primaries, which are black; bill purplish red; legs and feet orange red. Young: head, neck, and upper parts gray. Length, 34 in.

Hab.—Arctic Sea to Gulf, Valley of Mississippi to Atlantic Ocean.

32. Fulvous Tree Duck.—*Dendrocygna fulva*.

Head yellowish brown, darker on top; ring of black feathers with white centres on middle of neck; lower part of neck yellowish brown; back black barred with cinnamon; tail black; throat buffy white; under parts cinnamon; upper part breast yellowish brown; legs and feet slate blue; bill bluish black. Length, 20 in.

Female.—Similar to male.

Hab.—States of Nevada, California, Louisiana, Texas, Mexico. Accidental in Missouri and North Carolina.

33. Black-bellied Tree Duck.—*Dendrocygna autumnalis*.

Head gray, cinnamon on top; chin and throat gray white; neck, upper portion breast, back and scapulars cinnamon brown; middle back, rump, and upper tail coverts black; white tint on wing; lower

parts and sides of breast yellowish brown; abdomen and flanks black; bill red; legs and feet flesh color. Length, 19 in.

Female.—Resembles male.

Hab.—Southwestern States nearest Mexico; south through Mexico to South America.

34. Canvas-back.—*Aristonetta valisneria*.

Head dark chestnut red, black on top; upper part of back, chest, rump, upper and lower tail coverts black; back and sides white, with narrow waved black lines which give back gray or canvas appearance, similar to that of redhead, only waved black lines in latter are wider, causing back to appear darker; bill black and sloping gradually from outline of head; legs and feet gray; tail black. Length, 20 in.

Female.—Head, neck, chest, and upper part of back dark brownish-red, darkest on top; rest of back and sides dark brown; bill and feet same as male.

Hab.—North America. Breeds in Northern United States.

35. Ringed-neck Duck.—*Fuligula collaris*.

Similar to lesser scaup (No. 38), excepting a more or less well-defined chestnut red collar or ring around middle of neck. Length about 17½ in. Intermediate in size between scaup and lesser scaup.

Hab.—North America. Breeds in Northern United States.

36. Labrador Duck.—*Camptolæmus labradorius*.

Pied Duck.

Centre of crown black; rest of head, throat, and upper neck white; back black; wing white except primaries fuscous; front and sides of upper breast white; lower breast and belly black. Length, 20 in.; wing, 8½ in.

Hab.—Formerly North Atlantic Coast, breeding from Labrador northward, and in winter migrating southward to Long Island; doubtless now extinct.

Formerly not unusual to see them in Fulton Market, New York. The cause of this duck's extinction is unknown.—Chapman. See also paper on this species, *The Auk*, Vol. VIII. (1891), pp. 201-16.

37. Scaup Duck.—*Fuligula marila*.

Blue-bill.

Black-head.

Head, neck, foreparts of back, and chest black, with green reflections on head and neck; lower back, rump, upper and lower tail cov-

erts black ; middle of back, sides, flanks, and anal region, white waved with black lines ; tail blackish brown ; belly white ; bill, legs, and feet bluish gray. Length about 19 in.

Female.—Forehead and sides of bill at base white ; rest of head, neck, and breast dark brown ; upper parts dusky brown ; belly white ; bill, legs, and feet same as male.

Hab.—North America ; breeds in North Dakota and other Northern States.

38. Lesser Scaup Duck.—*Fuligula affinis*.

Same in pattern markings as preceding (No. 37), excepting reflections on head, which are said to be purple instead of green ; smaller. Length about 16 in.

Hab.—North America. Breeds in Northern United States.

39. Redhead.—*Æthya Americana*.

Head and neck chestnut red, redder than that of canvas-back, and glossed with purple at times ; upper back, rump, and upper and lower tail coverts black ; back and sides white with black waved lines wider than those of canvas-back and more like those of black-head or scaup duck ; tail dark brown ; bill blue ; legs and feet grayish blue. Length about 19½ in.

Female.—Head and neck pale brown ; back grayish brown ; bill and feet same as male.

Hab.—North America. Breeds in Northern States.

40. Buffle-head Duck.—*Charitonetta albeola*.
Butter-Ball.

Head black with metallic green or purple reflections, with broad white band from behind eye to top of head ; feathers of head puffed out, giving head large appearance ; back and rump black ; lower part neck, under parts and patch on wing, white ; tail dark gray ; legs and feet flesh color. Length about 14½ in.

Female.—Head and neck dark brown with white patch on cheeks ; upper parts blackish brown ; upper part, breast, sides, anal region, and lower tail coverts dull gray ; rest of under parts white ; bill dusky ; legs and feet bluish gray.

Hab.—North America.

41. Surf Scoter.—*Edemia perspicillata*.

Plumage black, except triangular spot on forehead, with point forward and another on nape, white ; bill red orange. Length, 21 in.

Female.—Brownish black with white patch on lores and another behind ears.

Hab.—North America from Atlantic to Pacific; south to Florida, Ohio River, Lower California.

42. Hooded Merganser.—*Lophodytes cucullatus*.

Head, neck, and back black; crest white; white patch on wing divided by black bar; rump dark brown; in front of wing, on sides of chest, two black and white crescentic bars, pointed at one end; under parts white; bill black; legs and feet yellowish brown; iris yellow. Length, 18 in.

Female.—Head, neck, and upper parts grayish brown; crest brown; patch on wing white crossed by black bar; under parts white; tail dark grayish brown; bill black; mandible orange; feet light brown; iris hazel. Length, 16½ in.

Hab.—North America. Breeds throughout its range.

43. Red-breasted Merganser.—*Merganser serrator*.

Head and crest black reflecting green and purple; white ring around neck; lower back and rump gray mottled with black and white; wing mostly white crossed by two black bars; lower neck and upper breast pale cinnamon streaked with black; under parts white; bill red; legs and feet orange red. Length, 22½ in.

Female.—Head and neck brownish buff or cinnamon; white patch on wing divided by black bar; throat and under parts white; bill, legs and feet similar to male.

Hab.—Northern parts of both hemispheres.

44. American Merganser.—*Merganser americanus*.

Head and neck black, reflecting green; upper parts black; rump and tail coverts gray; wing white with black bar; under parts salmon color, which fades after death (Elliot); tail gray; bill and feet red. Length, 26 in.

Female.—Head and neck reddish brown; chin and throat white; under parts ash gray; white speculum on wing. Length, 22½ in.

Hab.—North America, breeding in United States.

45. Golden Eye.—*Clangula clangula*.

Head and upper part of neck glossy green with purple reflections; large white spot between bill and eye; lower part of neck, upper part

of back, greater wing coverts and under parts white; rest of upper parts black; bill greenish black; legs and feet orange. Length, 20 in.

Female.—Head and upper neck brown; collar on neck white; back blackish brown; under parts white.

Hab.—North America.

(a)—Barrow's Golden Eye is a similar bird. Head bluish black, reflecting green. Found only in interior, from Arctic regions south to New York, Colorado, etc.

46. Long-tailed Duck.—*Harelda glacialis*.

Old Squaw.

Male, winter plumage.—Head, white, gray on sides; neck, back and upper parts of back and chest white; middle back, rump, upper tail coverts and wings black; scapulars pearl gray; tail black on median feathers, central pair elongated, outer feathers white; breast and upper part abdomen brown; bill orange; legs and feet bluish gray.

Summer.—Head, neck, and upper parts sooty black, except lores; forepart, cheeks and sides of forehead mouse gray; under parts and flanks white; bill black with broad rose-pink band crossing in front of nostrils; legs and feet pale bluish white. Length, 21 to 23 in., depending on tail feathers.

Female, winter plumage.—Head, neck, and lower parts white, except forehead and crown dusky; upper parts dark brown; tail grayish brown; central pair not elongated as in male.

Hab.—Northern hemisphere. North America, Arctic Sea to Florida and California.

47. Harlequin Duck.—*Histrionicus histrionicus*.

Head and neck dark gray glossed with violet, marked with white stripes and spots; forehead, crown, and nape black; upper parts slaty blue, grading into blue-black on lower part of rump and upper tail coverts; breast and abdomen gray; sides and flanks rufous; speculum deep bluish violet; bill gray; legs and feet bluish gray. Length, 17½ in.

Female.—Head, neck, and upper parts dark brown; head marked with white spots before and behind the eye; breast, sides, and flanks reddish brown; abdomen white; bill, legs and feet dark bluish gray. Length, 17 in.

Hab.—North America, from Arctic regions to Middle States and California.

48. Ruddy Duck.—*Erismatura jamaicensis*.

Upper parts of head, including eye and nape, glossy black; sides of head and chin white; throat, neck, back, upper tail coverts, scapulars, and flanks bright reddish chestnut; lower back and rump grayish brown; tail brownish black; under parts white; bill, legs, and feet grayish blue. Length, 16 in.

Female.—Upper head dark brown; cheeks brown, white stripe from below the eye to nape; upper parts dusky brown; lower parts silvery white; bill blue; legs and feet bluish gray. Length about 15½ in.

Hab.—North America, except Alaska. Breeds from Hudson Bay to Guatemala.

49. Masked Duck.—*Nomonyx dominicus*.

Head, excepting throat and chin, black; nape, throat, neck, back, scapulars, and upper tail coverts dark cinnamon; lower back and rump dark brown spotted with black; breast dark cinnamon grading into reddish buff; wings dark brown with white speculum; under tail coverts cinnamon blotched with black; tail dark brown; bill and eyelids pale blue; legs and feet brown. Length about 15 in.

Female.—Head buff, light on chin and throat; top of head black; stripe from base of bill through eye to occiput, and one from gape to occiput black; neck buff mottled with brown; upper parts black; wings dark brown; speculum white; primaries and tail brownish black; under parts ochraceous spotted with black on breast; bill horn brown. Length, 13 in.

Hab.—Tropical America from West Indies and Northern South America to Lower Rio Grande, straggling as far as Massachusetts and Wisconsin. An accidental visitor only to United States. Related to Ruddy Duck, but does not go in as large flocks. Flesh is as good as that of Ruddy. Expert diver, and difficult to recover when wounded.

50. White-winged Scoter.—*Oidemia deglandi*.

Entire plumage black, except small spot under eye and speculum on wing white; bill black, red, and white; legs and feet scarlet. Length, 20 in.

Female.—Sooty brown; white spots on head; bill dusky; legs and feet duller than those of the male, flesh color tinged with black.

Hab.—Northern portions North America on both coasts, south to Chesapeake, Southern Illinois, Lower California.

(a) American Scoter (Oidemia americana).

Entire plumage black, no speculum; bill, black and orange on basal half; legs and feet black. Length, 18 in.

Female.—Sooty brown; bill black, sometimes marked with yellow; legs and feet olive brown. Length, 18 in.

Hab.—North America, Arctic region to New Jersey on east coast, California on Pacific; Great Lakes. Accidental in Missouri.

51. King Eider.—*Somateria spectabilis*.

Top of head gray, cheeks pale green; head, throat, neck, upper part of neck, wing coverts, and large patch on each side of rump white; line along base of bill, spot beneath the eye, and broad V-shaped mark from chin along sides of throat, black; breast dark cream color; lower back, rump, and rest of under parts black; tail brownish black. Length, 23 in.

Female.—Head, chin, throat dark buff streaked with brown; chest and sides light buff; back and under parts blackish brown; tail black; legs and feet dull ochre. Length, 23 in.

Hab.—Arctic regions, south on Atlantic to Georgia, Great Lakes. Not found on Pacific south of Alaska.

Note.—The Pacific Eider and the Spectacled Eider are similar birds, found only in Alaska.

52. American Eider.—*Somateria dresseri*.

Top of head black with white stripe on occiput; cheeks, chin, throat, and neck black; lesser and middle wing coverts and patch on either side of rump white; greater wing coverts and secondaries brownish black; lower part of back, rump, upper and under tail coverts, and under parts below breast, black; breast cream color; tail brown; bill olive green; legs and feet green. Length, 22 in.

Female.—Plumage brown; head streaked with narrow black lines; bill, legs, and feet like male. Size same.

Hab.—North America from Labrador to Delaware on Atlantic Coast; occasional on Great Lakes.

(a) Eider (Somateria mollissima).

Very similar to No. 52, the description of one answers well for the other.

Hab.—Northeastern coast North America, south to Massachusetts.

53. Blue-winged Teal.—*Querquedula discors*.

Head and neck gray, black on top and chin; crescent-shaped mark of white on head between bill and eye; back gray with bars of buff; wing, patch metallic green with white bar in front; lesser wing coverts pale blue; lower back and tail dusky with white patch on each side of tail; under parts and sides reddish buff; bill black; legs and feet yellow. Length, 15 in.

Female.—Head and neck dusky gray, black on top; chin and throat white; upper parts dusky, barred with V-shaped buff marks; wing coverts blue, like male; no green wing patch; bill black; legs and feet pale flesh color. Length, 15 in.

Hab.—North America in general, but chiefly the Eastern Province; north to Alaska, and south to the West Indies and Northern South America; breeds from the Northern United States northward.

54. Cinnamon Teal.—*Querquedula cyanoptera*.

Head, neck, and lower parts chestnut, darker on top; wing coverts pale blue; wing patch green with white bar above; bill black; legs and feet orange. Length, 17 in.

Female.—Similar to female blue-winged teal, but more reddish. Length, 16½ in.

Hab.—Western America from Columbia River South to Chili, Patagonia, and Falkland Islands; East in North America to the Rocky Mountains; casual in Mississippi valley.

55. Dusky Duck.—*Anas obscura*.

Head and throat buff, streaked with dusky black on top and back of neck; remainder of plumage dusky black, paler beneath; wing patch violet, sometimes reflecting green, edged with black; bill yellow; legs and feet orange red. Length about 22 in.

Female.—Same as male.

Hab.—Eastern North America from Labrador to Florida (where replaced by Florida dusky duck (*a*) below); west to Valley of Mississippi.

Hab.—Florida.

(a) Florida Dusky Duck (Anas fulvigula).

Same as preceding, from sportsman's point of view. Same in appearance; somewhat smaller.

(b) Mottled Duck (Anas fulvigula maculosa).

Similar to Florida dusky.

Hab.—Eastern Texas, Louisiana, north to Kansas.

56. Green-winged Teal.—*Nettion carolinensis*.

Head and neck chestnut, broad green band from eye to nape, terminating in black tuft; chin black; back and sides waved with white and black narrow lines; lower back brownish gray; broad white bar in front of wing; wing patch green bordered below by black bar tipped with white; breast red spotted with black; belly white; bill black; legs and feet gray. Length, 14½ in.

Female.—Chin and throat buff; wing same as male; upper parts dusky; breast dark buff and spotted; bill black; legs and feet gray. Length, 14½ in.

Hab.—North America, breeding chiefly north of the United States and migrating south to Honduras and Cuba.

(a) *The European Teal (anas crecca)*.

An occasional visitor to our shores, is very similar to the American green-winged teal.

57. Wood Duck.—*Æx sponsa*.

Head dark green, reflecting purple and blue, with long crest; white line over eye to end of crest; broader white line below the eye, continued along lower edge of crest; breast chestnut marked with arrow-shaped white marks; throat white; back dark brown glossed with bronze green; wing coverts steel blue; lower breast and abdomen white; tail black; bill red; legs and feet yellow. Length, 18 in.

Female.—Head gray; space about eyes and throat white; back, rump, and upper tail coverts bronze; bill red; legs and feet yellow. Length, 18 in.

Hab.—Temperate North America; breeding throughout its range.

58. Mallard.—*Anas boschas*.

Similar to green-headed duck of barn-yards. Head and neck green, white collar; back brown with narrow waved lines of lighter brown; wings slate brown; speculum or wing patch purple, crossed at each end with black bar succeeded by white bar; breast chestnut; under parts silvery gray with waved lines of black; tail coverts black; tail white; bill greenish yellow; legs and feet orange red. Length about 22 in.

Female.—Dusky brown with buff markings; wing patch purple. Size, bill, feet, and legs same as male.

Hab.—Northern portions both hemispheres; breeds throughout its range.

59. Widgeon.—*Mareca americana*.

Female.—Top of head black, feathers margined with white; upper parts dusky barred with buff; wing coverts gray, edged with white; wing patch black and green; bill, legs, and feet same as male. Length, 18 in.

Hab.—North America.

60. Widgeon (See 59).

Male.—Head dull light buff speckled with black, white on top (from which named baldpate); green patch behind the eye extending on neck; back vinacious undulated with black; wing coverts white; black bar across wing; wing patch green and black; lower breast and abdomen white; bill gray blue, tip black; legs and feet gray. Length, 19 in.

Young male similar to female (No. 59).

Note.—The Widgeon is sometimes called bald-face. "Went a ducking between breakfast and dinner and killed two mallards and five bald-faces."—*Washington's Diary*.

Widgeon when much shot at on the feeding grounds will leave the bays in the daytime and return to feed at sun-set or later. I recently heard them at Back-bay, Currituck, long after sun-set, sounding their low, sweet, musical whistle as they passed overhead, returning to the bay.

61. Sprig-tail.— *Dafila acuta*.**Pin-tail.**

Head and upper neck brown, metallic reflections on sides; white stripe on sides of neck, extending to white under parts; back and sides of flank waved with narrow white and gray lines; cinnamon bar across wing; wing patch reflecting bronze green, black bar and white tip; tail feathers brown on outer webs, gray on inner, central pair long, extending beyond the others (hence name pin-tail duck); bill bluish gray; legs and feet brownish gray. Length, 26 in.

Female.—Head yellowish white streaked with gray, rufous on top streaked with black; back of neck dusky streaked with buff; bill bluish gray; legs and feet gray. Length, 20 in.

Hab.—Northern Hemisphere. In North America breeds from the northern parts of the United States northward and migrates south to Panama and Cuba.

62. Shoveller.—*Spatula clypeata*.

Head and neck green; upper part back and breast white; middle back brown; rump and upper tail coverts black glossed with green; wing coverts blue; narrow white band across wing; wing patch green; under parts chestnut; bill black; legs and feet orange red. Length, 19 in.

Female.—Head and neck buff streaked with gray, brownish white on top; wing coverts blue; wing patch green; under parts reddish buff; bill olive brown; legs and feet orange. Length, 19 in.

Hab.—Northern hemisphere, Alaska to Texas, not common on Atlantic Coast.

63. Gadwall.—*Chaulelasmus streperus*.**Gray Duck.**

Head light buff, rufous on top spotted with black and brown; upper part back and breast marked with crescent-shaped black and white bars, the former most prominent; back, scapulars, and flanks undulated with slate color and white; wing gray; wing patch white, black stripe in front; vent and under tail coverts black; rest of under parts white; bill bluish black; legs and feet orange. Length, 20 in.

64. Gadwall (See 63).

Female.—Head tawny spotted with brown and buff; chin and throat yellowish white; wings like male with white wing patch (but little or no black in front); bill dusky orange; legs and feet dull yellow. Length, 19 in.

Hab.—Arctic regions to Mexico. Breeds in Northern States.

BOOK III

THE SHORE BIRDS OR WADERS, ORDER *Limicolæ*, LITERALLY MUD-DWELLERS—THE SNIPES, SANDPIPERS, PLOVERS, AND OTHER WADING BIRDS.

65. Wilson's Snipe.—*Gallinago delicata*.

Head black on top, striped with buff; neck buff with black spots, back black with brown and buff lines; breast buff spotted with brown, bill gray, $2\frac{1}{2}$ –3 in. long. Length, $10\frac{1}{2}$ – $11\frac{1}{2}$ in.; wing, 5 – $5\frac{1}{2}$ in.

Hab.—North and Middle America, breeding from the Northern United States northward. South in winter to West Indies and South America.

Often called Jack snipe, English snipe, marsh snipe, shad-bird or shad spirit.

(a) *European Snipe (Gallinago gallinago.)*

Somewhat similar. Listed in check-list of the American Ornithological Union since specimens have been taken in Greenland.

66. **Knot.**—*Tringa canutus.*

Top of head dark brown streaked with white; back gray; rump and upper tail coverts white barred with black; under parts white. In summer the throat, breast, and sides of the abdomen are cinnamon; middle of abdomen white; bill, legs, and feet black. Length, 10 in.; wing, 6½ in.

Hab.—Nearly cosmopolitan. Breeds in high northern latitudes, but visits the southern hemisphere during its migrations. Not found on Pacific Coast of America south of Alaskan peninsula.—Elliot.

67. **Bartramian Sandpiper.**—*Bartramia longicauda.*

General color brown, variegated with black and buff; head buff on sides streaked with brown, black on top; back black marked with buff; throat and under parts buff marked with brown on breast and flanks; bill brownish black; feet and legs yellowish gray. Length, 12 in.; wing, 6½ in.

Hab.—North America, mainly east of Rocky Mountains; south in winter to South America.

68. **Dowitcher.**—*Macrorhamphus griseus.*
Red-breasted Snipe.

General color reddish or gray brown. Similar in size and length of bill to Wilson's snipe (No. 65). Head and upper parts mixed with buff, brown, and white; abdomen and belly white.

Hab.—Eastern North America, breeding far north; south in winter to South America.

(a) *Western Dowitcher, Long-billed Dowitcher (Macrorhamphus scolopaceus).*

A Western variety and similar to No. 68, with bill somewhat longer.

Hab.—Mississippi Valley and Western Province of North America from Mexico to Alaska. Less common but of regular occurrence along the Atlantic Coast of the United States.

69. American Woodcock.—*Philohela minor*.

General color brown, more gray in the autumn; head brown, dark brown line from bill to eye; top of head black, crossed by narrow buff lines; upper parts variegated with reddish brown, black, and gray; under parts reddish buff; bill brown, $2\frac{1}{2}$ –3 in. long; feet and legs gray. Length, $10\frac{1}{2}$ – $11\frac{3}{4}$ in.

Hab.—Eastern North America, north to British Provinces; westward to Dakota, Kansas, Nebraska. Southern States in winter. Colorado, not common.

(a) European Woodcock (Scolopax rusticola).

A much larger bird than No. 69. Easily distinguished by its size.

Hab.—An occasional visitor to Eastern North America.

70. Pectoral Sandpiper.—*Tringa maculata*.

Head and upper parts pale gray; rump brownish black; breast and sides buff streaked with brown; under parts white; bill black; legs and feet buff. Length, $8\frac{1}{2}$ –9 in.; wing, 5 – $5\frac{1}{2}$ in.

Hab.—The whole of North America, the West Indies, and the greater part of South America. Breeds in the Arctic regions.

71. Hudsonian Godwit.—*Limosa hamastica*.

Head, back, and sides of neck grayish white; back black marked with buff, gray, and white; upper tail coverts white; tail black, base and tip white; throat white streaked with black; lower parts dark chestnut narrowly barred with black; bill flesh color; feet and legs gray blue. Length, 14–16 in.; wing, 8 in.

Hab.—Eastern North America, and whole of Middle and South America. Also in Alaska. South in winter to South America.

72. Marbled Godwit.—*Limosa fada*.

Head and neck buff streaked with black; upper parts reddish buff barred with black; white stripe from bill to above the eye; throat white; under parts rufous barred with brown; bill flesh color on basal half, brown black on remaining parts; feet gray. Length, $16\frac{1}{2}$ – $20\frac{1}{2}$ in.; wing, $8\frac{3}{4}$ in.

Hab.—North America generally, breeding in interior from Iowa and Dakota north; south in winter to Guatemala, Yucatan, Cuba, etc.

73. Black-necked Stilt.—*Himantopus mexicanus*.

Forehead, spot above and below the eye, chin, throat, front and sides of neck, under parts, rump and tail coverts white; rest of head, hind

neck, back and wings black; tail ashy white; easily distinguished by extremely long red legs; bill black.

Female.—Back and scapulars brownish slate. Length, 15 in.; wing, 9 in.

Hab.—Temperate North America from the Northern United States southward to the West Indies, Northern Brazil, and Peru. Rare in Eastern United States, except Florida.

74. American Avocet.—*Recurvirostra americana.*

Head and upper breast cinnamon; chin white; back brownish black; easily distinguished by long pale blue legs and feet of same color. Length, 15½-18¾ in.; wing, 8½-9 in.

In winter head, neck, and breast are white.

Other names: white snipe, blue stocking.

Hab.—Temperate North America, north to Saskatchewan, south to Central America. Rare in Eastern United States.

75. Hudsonian Curlew.—*Numenius hudsonicus.*

General color grayish brown above; under parts buff or yellowish white; sides of head buff marked with narrow streaks; crown brown with stripe of buff; brown stripe from bill to ear coverts; bill brownish black; feet and legs black. Length, 17 in.; wing, 9½ in.

Hab.—All of North and South America, including the West Indies. Breeds in the high North and winters chiefly south of the United States.

Note.—Curlews are easily distinguished from the other waders by their bills, which curve downward.

76. Eskimo Curlew.—*Numenius borealis.*

General color, upper parts black margined with buff or yellowish white; under parts yellowish white or buff, the breast streaked; top of head black marked with buff; black line from bill to ear coverts; rest of head and neck buff; bill brownish black; legs brown. Length, 13½ in.; wing, 8¼ in.

Resembles No. 75, but is easily distinguished by its smaller size.

Hab.—Eastern North America, breeding in the Arctic regions and migrating south throughout South America.

77. Pacific Godwit.—*Limosa capponica baueri.*

Upper parts brownish gray; lower parts reddish buff barred on flanks and under tail coverts with brown; top of head and hind neck

streaked with blackish brown; bill brown, flesh color on basal half. Length, 16 in.; wing, $8\frac{3}{4}$ in.

Hab.—Shores and islands of the Pacific Ocean from New Zealand and Australia to Kamchatka and Alaska. On American coast recorded south of Alaska only from La Paz, Lower California.

78. Long-billed Curlew.—*Numenius longirostris*.

“The giant among waders,” easily distinguished by its size. Upper parts reddish buff streaked on head and neck; under parts light buff; sides barred with black; bill black; legs and feet gray-brown. Length, 2 ft.; wing, $10\frac{1}{2}$ in. Often called sickle-bill and sickle-bill curlew.

Hab.—Temperate North America, migrating south to Guatemala, Cuba, and Jamaica. Breeds in South Atlantic States in winter.

79. Willet.—*Symphemia semipalmata*.

Upper parts brownish gray; back barred with black; breast and sides barred with brownish gray; belly white; bill black; feet and legs gray. Length, 16 in.; wing, $8\frac{3}{4}$ in.

Hab.—Temperate North America, south to the West Indies and Brazil.

(a) *Western Willet* (*Symphemia semipalmata specularifera*).

Slightly larger than No. 79, not easily distinguished.

Hab.—Western North America to Mississippi Valley; occasional on Atlantic Coast.

80. Ruff.—*Pavoncella pugnax*.

Male.—Easily distinguished by large ruff on neck; neck and breast reddish brown; abdomen and under tail coverts white; much variation in color in different specimens. Length, $12\frac{1}{2}$ in.; wing, $7\frac{1}{2}$ in.

Female.—Without ruff; upper parts grayish brown; back barred with brown; bill brown; legs and feet yellow.

Hab.—Northern parts of Old World, straying occasionally to Eastern North America.

81. Greater Yellow-legs.—*Totanus melanoleucus*.

Upper parts gray marked with black; breast spotted with black; sides barred with black; belly white; bill black; feet and legs Naples yellow. Length, 14-15 in.; wing, 8 in.

Hab.—America in general. Breeding from Iowa and northern Illinois, etc., northward, and migrating south to Chili and Argentine Republic.

(a) *Yellow-legs (Totanus flavipes).*

Similar to No. 81, only smaller. Length, 11 in.; wing, 6½ in. Always more abundant than the larger birds.

Hab.—North America in general, less common in the West than in the Eastern provinces. Migrating south in winter to Southern South America.

Note.—I have seen the yellow-legs more abundant in North Dakota than anywhere in the East.

82. **White-rumped Sandpiper.**—*Tringa fuscicollis.*

Upper parts black, edged with rufous; in winter brownish gray; throat white; neck, breast, and sides streaked and spotted with black; bill, feet, and legs greenish black. Length, 7½ in.; wing, 5 in.

Hab.—Eastern North America, breeding in the high North. In winter the West Indies, Central and South America south to the Falkland Islands; occasional in Europe.

83. **Sanderling.**—*Calidris arenaria.*

Upper parts dark gray with black markings, centre of feathers black; throat and upper breast spotted with black; under parts white; white bar on wing; bill, legs, and feet black. Length, 8 in.; wing, 5 in. Often called surf-snipe, beach bird and ruddy plover, usually found on sea-shores.

Hab.—Nearly cosmopolitan. Breeding in the Arctic and Subarctic regions, migrating in America south to Chili and Patagonia.

84. **Baird's Sandpiper.**—*Tringa bairdii.*

Upper parts and top of head gray, variegated with black; sides of head and breast buff streaked with brown; throat and under parts white; bill, feet, and legs black. Length, 7½ in.; wing, 4¾ in.

Hab.—Nearly the whole of North and South America, but chiefly the interior of North and the western portions of South America, south to Chili, Patagonia. Breeds in Alaska and on the Barren Grounds. Rare along the Atlantic Coast, and not yet recorded from the Pacific Coast of the United States.

85. Stilt Sandpiper.—*Micropalma himantopus*.

Top of head, back, and sides of neck gray; back gray; under parts white, streaked with gray on neck, breast, and lower tail coverts. In summer top of head is black streaked with yellowish white; line from bill to eye rufous; bill black; legs and feet greenish gray. Length, $7\frac{1}{2}$ – $9\frac{1}{2}$ in.; wing, 5 – $5\frac{1}{2}$ in.

Hab.—Eastern Province of North America from Arctic regions to South America in winter.

86. Purple Sandpiper.—*Tringa maritima*.

Summer.—Top of head, neck, back, rump, and scapulars blackish brown; white bar on wing; throat white; breast grayish brown; rest of under parts white. *Winter.*—Upper parts black, reflecting purple; under parts white; flanks streaked with brown; legs and feet yellow; bill brown. Length, 8 in.; wing, $4\frac{3}{4}$ in.

Hab.—Northern portions of the Northern Hemisphere; in North America chiefly the northeastern portions; breeding in the high North, migrating in winter to the Eastern and Middle States, the Great Lakes, and the shores of the larger streams in the Mississippi Valley.

87. Spotted Sandpiper.—*Actitis macularia*.

Upper parts brownish gray; head and neck streaked with black; back spotted with black; back browner in winter; under parts white spotted with black; legs and feet gray; bill black edged with yellow. Length, $7\frac{1}{2}$ in.; wing, $4\frac{1}{4}$ in.

Hab.—North and South America, from Alaska south to Southern Brazil. Breeds throughout temperate North America; less commonly on the Pacific Coast. Occasional in Europe.

88. Buff-breasted Sandpiper.—*Tryngites subruficollis*.

Upper parts grayish brown; under parts pale buff; bill black; legs and feet yellowish green. Length, 8 in.; wing, $5\frac{1}{4}$ in.

Hab.—North America, especially in the interior. Breeds in the Yukon district and the interior of British America, northward to the Arctic coast; South America in winter as far as Uruguay and Peru.

89. Red-backed Sandpiper.—*Tringa alpina pacifica*.

Upper parts brown marked with black; wings brownish gray; breast light gray; black patch on middle of belly; lower belly white; bill black; legs and feet black. Length, 8 in.; wing, $4\frac{3}{4}$ in.

Hab.—North America in general, breeding far north; Eastern Asia.

90. Solitary Sandpiper.—*Totanus solitarius*.

Upper parts olive brown; back spotted with white; breast streaked with black; in winter upper parts grayish brown; belly white; bill greenish brown; legs and feet olive green. Length, $8\frac{1}{2}$ in.; wing, $5\frac{1}{4}$ in.

Hab.—North America, breeding occasionally in the Northern United States, more commonly northward, and migrating southward as far as the Argentine Republic and Peru.

91. Wandering Tattler.—*Heteractitis incanus*.

Head, neck, and upper parts dark gray; throat white spotted with gray; under parts white barred with gray; bill black; feet and legs greenish yellow. Length, 8 in.; wing, $6\frac{1}{2}$ in.

Hab.—Pacific Coast of America, from Norton Sound, Alaska, to Galapagos, and west to Kamchatka and Hawaiian Islands; also the Eastern group of Polynesia.

92. Belted Piping Plover.—*Egialites meloda circumcincta*.

Upper parts gray; forehead and under parts white; black band on breast and black band on forehead. Similar to No. 93.

Hab.—Mississippi Valley, breeding from Northern Illinois north to Lake Winnipeg; more or less frequent eastward to the Atlantic Coast.

93. Piping Plover.—*Egialites meloda*.

Upper parts pale green; forehead and under parts white; ring around neck white; band on either side of breast, black; band on forehead black; bill orange, tip black; legs and feet orange. Length, 7 in.; wing, $4\frac{3}{4}$ in.

Hab.—Eastern North America, breeding from the coast of Virginia northward to Newfoundland; in winter, West Indies.

94. Semipalmated Plover.—*Egialites semipalmata*.
Ring-neck Plover.

Under parts and ring around neck white, except band on the breast encircling neck black; back brownish gray; spot under eye white; bill yellow, black tip; legs and feet flesh color. Length, $6\frac{3}{4}$ in.; wing, $4\frac{3}{4}$ in.

Hab.—Arctic and Subarctic America, migrating south throughout tropical America, as far as Brazil, Peru, and the Galapagos.

95. Black-bellied Plover.—*Charadrius squatarola*.

Upper parts black bordered with white; tail white barred with black; sides of head, neck, and under parts black, except white lower belly; bill black; legs and feet gray. Length, 11 in.; wing, 7½ in.

Hab.—Nearly cosmopolitan, but chiefly in the northern hemisphere; breeding far north, and migrating south in winter; in America to the West Indies, Brazil, and Colombia.

Note.—George H. Mackay (*The Auk*, Vol. IX., p. 146) says: "The black-bellied plover is in a great degree a tide bird, seeking a large portion of its food on those extensive sand flats left by the receding waters." And (p. 148) Mr. Mackay says: "I judge they [the black-bellies] have never been very abundant in America." I remain of the opinion, however, that the black-bellied plover are certainly as abundant in some of the Western States as they are on the Atlantic Coast, if not more so. Mr. A. Henry Higginson (*Outing*, December, 1902, p. 278) says: "On May 21st we were driving along near a 'coolie' which ran in from Lac aux Morts [North Dakota], when we saw what we took to be a bunch of golden plover feeding near the water. My assistant went after them while I sat in the wagon and held the horse. The plover saw him and flushed before he got in range, flying directly over my wagon. I managed to drop one, and when I went to pick it up I found that it was an old black-belly, with a breast as black as jet and a very white back. On May 25th we went down to Lake Irwin, about ten miles from our camp, after any shore birds that might chance to be there. Lake Irwin has hard, sandy shores, an ideal place for black-bellies, and we found them in abundance. We got a great series of these birds, showing the variation in plumage, which is very great. A few old males seemed to like to stay alone, but most of them were in flocks of one hundred or more."

96. Pacific Golden Plover.—*Charadrius dominicus fulvus*.

Very similar to No. 97, following. Length, 10½ in.; wing, 6½ in.

Note.—"It is extremely difficult to distinguish the Pacific from the American golden plover, the only difference being its smaller size and more golden hue."—Elliot.

Hab.—Breeding, from Northern Asia to the Pribelof Islands and coast of Alaska and south in winter through China and India to Australia and Polynesia.

97. American Golden Plover.—*Charadrius dominicus*.

Upper parts black, with golden dots, by which it is easily distinguished; sides of breast white; sides of head and under parts black. Length, 10½ in.; wing, 7 in.

Hab.—Arctic America, except coast of Bering Sea, migrating southward throughout North and South America to Patagonia.

98. Snowy Plover.—*Ægialites nivosa*.

Forehead and under parts white; band across crown, and broad patch on either side of breast black; bill black. Length, $6\frac{1}{4}$ in.; wing, $4\frac{1}{4}$ in.

Hab.—Western United States, from California east to Kansas and Western Gulf States; in winter both coasts of Central America and Western South America to Chili; Western Cuba.

99. Wilson's Plover.—*Ægialites wilsonia*.

Lores, front of crown, and band on breast black; rest of under parts and forehead white; back brownish gray. Length, $7\frac{1}{2}$ in.; wing, $4\frac{1}{2}$ in.

Hab.—Coasts of North and South America from Long Island and Lower California southward. Casual to Nova Scotia.

100. Surf-bird.—*Aphriza virgata*.

Head, neck, and breast mottled with black and white; white bar on wing; white rump; bill black; legs and feet yellow. Length, 10 in.; wing, 7 in.

Hab.—Pacific Coast of America from Alaska to Chili.

101. Black Turnstone.—*Arenaria melanocephala*.

Head, neck, and back brownish black; spot in front of and behind the eye white; throat and chest blackish brown; under parts white; bill black; legs and feet greenish yellow. Length, 9 in.; wing, 6 in.

Hab.—Pacific Coast of North America from Point Barrow, Alaska, to Santa Margarita Island, Lower California; breeding from Alaska south to British Columbia.

102. Mountain Plover.—*Ægialites montana*.

Forehead and stripe over eye white; stripe from bill to eye black; upper parts grayish brown; under parts dull white; bill black; feet and legs orange. Length, $8\frac{1}{2}$ in.; wing, 6 in.

Hab.—Chiefly the Plains from Central Kansas to the Rocky Mountains; north to the British boundary from Kansas; westward, especially in winter, to Central and Southern California. Accidental in Florida.

103. Turnstone.—*Arenaria interpres*.

Top of head, back of neck, chin and throat, and upper back to sides of breast white, streaked on crown with black; head marked

with black; back black; rump white; bill black; feet and legs orange red. Length, 9 in.; wing, 6 in.

Hab.—Nearly cosmopolitan. In America from Greenland and Alaska to Straits of Magellan; more or less common in interior of North America on the shores of Great Lakes and the larger rivers. Breeds in high latitudes.

104. Least Sandpiper.—*Tringa minutilla*.

Peep.

Upper parts black, edged and tipped with buff or rufous; upper throat white; neck and breast white or buffy, streaked; belly and sides white; bill, legs and feet black. Length, 6 in.; wing, $3\frac{1}{2}$ in.

Hab.—The whole of North and South America, breeding north of the United States. Accidental in Europe.

105. Semipalmated Sandpiper.—*Ereunetes pusillus*.

Ox-eye; peep.

Upper parts black margined with brownish gray; breast streaked or spotted with black; under parts white; bill, feet, and legs black. Length, $6\frac{1}{4}$ in.; wing, $3\frac{3}{4}$ in.

Hab.—Eastern North America, breeding north of United States. South in winter to South America and West Indies.

106. Aleutian Sandpiper.—*Tringa couesi*.

Head, neck, and back black; wings gray brown; white bar across wing; rump brownish black; throat, neck, and under parts white streaked with brownish black; bill gray black; feet and legs yellow.

“In winter resembles purple sandpiper so closely that it is impossible to give recognizable character to distinguish them apart.”—Elliot.

Hab.—Aleutian Islands and coast of Alaska, north to Kowak River, west to Commander Islands, Kamchatka. Length, $7\frac{1}{2}$ –9 in.; wing, $4\frac{1}{2}$ –5 in.

107. Curlew Sandpiper.—*Tringa ferruginea*.

Upper parts brownish gray; sides of head and throat white streaked with gray. In *summer* back and scapulars are black margined with rusty; sides of head, neck, and breast rufous; bill, legs, and feet greenish black. Length, $8\frac{1}{2}$ in.; wing, 5 in.

Hab.—The Old World in general; occasional in Eastern North America and Alaska.

108. Western Sandpiper.—*Ereunetes occidentalis*.

Similar in size and pattern to semi-palmated sandpiper; bill longer.

Hab.—Chiefly Western Province of the United States, occasional eastward to the Atlantic Coast; breeding far north and migrating in winter to Central and South America.

109. Wilson's Phalarope.—*Phalaropus tricolor*.

Female.—Larger than male. In *winter*, upper parts gray; rest of plumage white. In *summer*, head light gray on top; white line over eye; throat and under parts white; legs, feet, and bill black. Length, 9½-10 in.; wing, 5¼ in.

Male.—Smaller and duller.

Hab.—Temperate North America, chiefly the interior; to South America in winter.

110. Northern Phalarope.—*Phalaropus lobatus*.

Female.—Larger than male. *Winter*, back and wings gray; chin, throat, and under parts white. *Summer*, head, neck, and back gray; white spots above and below the eye; upper breast chestnut; chin and under parts white; legs and feet gray; bill black. Length, 7 in.; wing, 4 in.

Male.—Duller and smaller.

Hab.—Northern portions of Northern hemisphere, breeding in Arctic latitudes. South in winter to the tropics.

111. Red Phalarope.—*Crymophilus fulicarius*.

Female.—Head, chin, forehead, and crown black; sides and line around the eye white; back black; under parts and neck cinnamon; bill yellow, black at tip; legs and feet dull olive. Length, 7½-8 in.; wing, 5¼-5½ in. *Winter*, head, neck, and under parts white, except occiput and around eyes black; back gray.

Male.—Similar, duller.

Hab.—Northern parts of northern hemisphere, south on Atlantic Coast to Middle States; to South America on Pacific Coast.

112. Killdeer Plover.—*Ægialitis vocifera*.

Killdee.

Forehead, throat, and belly white; spot behind the eye and ring around the neck white; ring around the neck and band on the breast black; crown and back grayish brown; rump and upper tail coverts rufous; bill black; legs and feet grayish yellow. Length, 10½ in.; wing, 6½ in.

Hab.—Temperate North America, breeding north to Newfoundland and Manitoba, migrating to the West Indies and Central and Northern South America and Bermuda.

113. American Oyster Catcher.—*Hæmatopus palliatus*.

Head, neck, and upper breast black; back and wing coverts brown; upper tail coverts white; base of tail white; lower breast and belly white; bill red; legs and feet flesh color. Length, 17–21 in.; wing, 10¼ in.

Hab.—Sea-coasts of temperate and tropical America from New Jersey and Western Mexico to Patagonia; occasional or accidental on Atlantic Coast, north to Massachusetts and Grand Menon.

114. Black Oyster Catcher.—*Hæmatopus bachmani*.

Head and neck black; rest of plumage blackish brown; bill red; legs and feet flesh color. Length, 17 in.; wing, 9½ in.

Hab.—Pacific Coast of North America from the Aleutian Islands to La Paz, Lower California.

Note.—"Oyster catchers are generally maritime birds, and resort to the outer beaches in search of clams, mussels, etc., exposed by the tide. Their strong bill is used as an oyster knife to force open the shells of these bivalves."—Chapman.

The Jacanas are the only remaining family of shore birds. Only one of these, the Mexican Jacana is found in North America.

Hab.—Lower Rio Grande Valley, Texas, south to Central America. Of no importance to sportsmen.

BOOK IV

CRANES, COOTS, RAILS AND REED-BIRDS, WILD PIGEONS AND DOVES

115. American Coot.—*Fulica americana*.

Mud-hen, Crow Duck.

Plumage slate or blue black, paler below; edge of wing and under tail coverts white; bill white; legs and feet gray green. Length, 15 in.; wing, 7½ in. Often called blue peter.

Hab.—North America from Greenland and Alaska southward to the West Indies and Central America.

Note.—This bird is familiar to all duck shooters as the mud-hen. It flies slowly a short distance above the water and is not a difficult mark. It was not

considered a game bird a few years ago, but as ducks have vanished, sportsmen shoot coots for the want of something better. It is said they are edible when skinned.

116. Sand-hill Crane.—*Grus mexicana*.

Plumage slaty or gray brown; top of head bare but with black hairs on dull reddish skin. Length, 40 in.; wing, $21\frac{3}{4}$ in.

Hab.—Southern half of North America. Now rare near the Atlantic Coast, except in Georgia and Florida.

(a) *Little Brown Crane* (*Grus canadensis*).

Similar to the sand-hill crane (No. 116), only smaller. Wing, $18\frac{1}{2}$ in.

Hab.—Arctic and Subarctic America, breeding from the fur countries and Alaska to the Arctic Coast; migrating south in winter into the Western United States.

117. Whooping Crane.—*Grus americana*.
White Crane.

Plumage white; primaries black; top of head and sides of throat dull red. Length, 50 in.; wing, 25 in.

Hab.—Interior of North America from the fur countries to Florida, Texas, and Mexico, and from Ohio to Colorado. Formerly on the Atlantic Coast at least casually to New England.

Note.—There are fifteen species of cranes in the world. The three above given are those found in North America. Chapman says: "Our species migrate in flocks, but are solitary rather than gregarious at other times of the year. Their voice is loud and and resonant." Young cranes are palatable. Old birds are more often tough and undesirable.

118. Black Rail.—*Porzana jamaicensis*.

Back and wings brownish black barred or spotted with white; head, breast and upper belly slate color; nape dark reddish brown. Length, 5 in.; wing, $2\frac{3}{4}$ in.

Hab.—United States. Wintering south to South America, north to Massachusetts, Northern Illinois, and Oregon.

119. Yellow Rail.—*Porzana noveboracensis*.

Plumage brownish yellow; upper parts black, bordered with buff; breast yellow; middle of belly white; sides and lower belly brown, barred with white. A rare bird. Length, 7 in.; wing, $3\frac{5}{8}$ in.

Hab.—Eastern North America, Nova Scotia, and Hudson Bay, west to Utah and Nevada.

120. Sora.—*Porzana carolina*.**Carolina Rail.**

Upper plumage olive brown ; base of bill and crown black ; breast, throat, sides of head slate color ; flanks barred with black and white. Length, $8\frac{1}{2}$ in. ; wing, $4\frac{1}{4}$ in.

Hab.—North America, breeding from Illinois and New York north to Hudson Bay. Wintering in the Gulf States and Northern South America.

121. Virginia Rail.—*Rallus virginianus*.

Very similar in color and pattern to King Rail, No. 123. Upper parts reddish brown marked with black ; belly and sides barred with white ; much smaller than king rail. Length, $9\frac{1}{2}$ in. ; wing, $4\frac{1}{2}$ in.

Hab.—North America, breeding from Illinois and Pennsylvania to Manitoba and Labrador, and wintering from same States to Central America.

122. Clapper Rail.—*Rallus longirostris crepitans*.**Salt-water Marsh Hen.**

Upper parts olive gray ; wings and tail brown ; wing coverts pale cinnamon ; throat white ; sides and belly barred with white. Length, $14\frac{1}{2}$ in. ; wing, 5 in.

Easily distinguished from king rail, since latter is much browner in color.

Hab.—Eastern and Southern States, in salt-water marshes ; breeding from Connecticut southward.

- | | |
|------------------------------------|---|
| (a) <i>Florida clapper rail.</i> | } Same as 122, from sportsman's point
of view. |
| (b) <i>Louisiana clapper rail.</i> | |

123. King Rail.—*Rallus elegans*.**Fresh-water Marsh Hen.**

Upper parts brown marked with black ; wings and tail olive brown ; throat white ; belly and sides barred with white ; neck and breast cinnamon. Length, 15 in. ; wing, $6\frac{1}{2}$ in.

Hab.—Eastern United States in fresh-water marshes, breeding to Missouri and Connecticut. Wintering from Virginia southward. Strays north to Wisconsin and Maine.

- (a) *The Corn-crake.*—(*Crex crex*).

About the size of the king rail, No. 123. General color brownish buff, marked with dark brown or black on back ; sides barred with

white; middle of belly white; short bill. This rail is an Old World species of casual occurrence in Eastern North America.

Note.—Rails have long, narrow bodies which enable them to run through the reeds and marsh grasses. They are only found in marshes covered with reeds, wild rice, or rushes. Their long toes enable them to run about on lily-pads, floating grasses, and soft mud.

124. Ground Dove.—*Columbigallina terrestris.*

Top of head slate color; glossed with blue on head and neck; back brownish gray; outer tail feathers tipped with white; forehead and under parts vinaceous; easily distinguished by small size, about half the size of the mourning dove or common wild dove. Length, $6\frac{3}{4}$ in., wing, $3\frac{1}{2}$ in.; tail $2\frac{1}{2}$ in.

Hab.—South Atlantic and Gulf States, West Indies, and Northern South America; breeding from South Carolina to Louisiana.

"This dove frequents both pines and 'hummocks,' lake shores and old fields, and in some Southern towns is a familiar bird of the quieter streets. By no means shy. Favorite roosting places densely foliaged orange-trees."—Chapman.

125. White-winged Dove.—*Melopelia leucoptera.*

Plumage bluish gray; easily distinguished by large white patch on wings; outer under tail feathers tipped with white; sides of head and neck iridescent green marked with steel-blue spot. Length, 12 in.; wing, $6\frac{1}{2}$ in.; tail, $4\frac{3}{4}$ in.

Hab.—Arizona, New Mexico, Texas to Central America, occasional in Florida.

126. Mourning Dove.—*Zenaidura macroura.*
Carolina Dove.

Slaty brown above; under parts red on neck and breast, buff below; neck iridescent; tail long, $5\frac{3}{4}$ in.; small black mark below the ear; under feathers tipped with white; resembles the wild pigeon, but is smaller and brown on the rump instead of slate color; flies with loud whistling sound, made by the wings; nests in trees, but on the ground when there are no trees. Length, $11\frac{1}{2}$ –13 in.; wing, $5\frac{3}{4}$ in.

Hab.—North America, from Maine, Canada, and Oregon, south to Panama and West Indies.

Note—Mr. Shields, the editor of *Recreation*, claims that the dove is not a legitimate game bird and that it should not be killed at any time. He says: "It is a beautiful and harmless creature, too pretty and too innocent to be regarded as game. There are few States in the Union where sportsmen continue to kill these birds."

In a recent bulletin of the United States Department of Agriculture, it is stated that the dove is protected at all times in Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Delaware, West Virginia, Michigan, Wisconsin, Iowa, Wyoming, Arkansas, and the District of Columbia. Ohio has prohibited dove-shooting since the bulletin was issued. It would seem that the States are inclined to follow Mr. Shields. Dove-shooting, however, is still a very popular sport in most of the Western and Southern States.

In Central and Southern Arizona in the summer, the white-winged dove is found in great quantities. This is probably the finest shooting in the world. Experienced wing-shooters are frequently able to kill a hundred of these swift flying birds within an hour or two. These birds are so numerous in the farming regions as to be almost considered a pest at times.—*Report of Governor Brodie to the Secretary of the Interior.*

127. Red-billed Pigeon.—*Columba flavirostris.*

Head, neck, and breast purplish wine-color; back olive brown, with bronze reflections; other portions slate-colored; base of bill red. Length, 14 in.; wing, $7\frac{3}{4}$ in.

Hab.—Texas to Arizona.

128. Passenger Pigeon.—*Ectopistes migratorius.*

Slate blue above; throat and breast red, becoming white toward tail; under outside feathers of the tail white; neck iridescent, reflecting red, green, and purple.

Female.—Duller; neck less iridescent; tail long, $8\frac{1}{4}$ in. Length, 15–17 in.; wing, $8\frac{1}{4}$ in.

Hab.—Formerly, North America from Atlantic to the Great Plains, now extinct or nearly so.

Note.—The Ornithological Union has proposed that the term "game" be restricted to four orders. — *Anatidæ*, the swimmers *Rallidæ*, the rails, coots, mud-hens, *Limicolæ*, the shore birds, and *Gallinæ*, the turkeys, grouse, partridges, etc. This excludes from the proposed game list, pigeons and doves, and the cranes and reed-birds.

F. Henry Yorke, writing of the disappearance of the wild-pigeons, says: "There is only one possible solution, and I believe it to be a true one. They were drowned! At first I was skeptical on the point. Could they not rise above or outride a storm, hang on, pay off or run before it? Many or most of them, although exhausted, would reach a friendly shore. They did not, and the stern, hard fact remains, that in that manner they must surely have met their fate. A report was current among the sailors and masters of ships, that from Key West across the Gulf, ships plowed their way through dead pigeons, and that the shores were lined with them." This occurred in 1883, Mr. Yorke says. But the pigeons disappeared before that date in New York, Pennsylvania, Ohio and elsewhere.

129. Band-tailed Pigeon.—*Columba fasciata*.

Head, neck, and lower parts ashy vinaceous purple, lighter on the abdomen; above gray; olivaceous on the back, bluish on the rump; narrow half-collar of white across the upper portion of nape, feathers beneath this dull metallic golden green reflecting bronze; bill and feet yellow.

Female.—Smaller and more gray.

Hab.—Pacific States of United States to table-lands of Mexico.

130. Zenaida Dove.—*Zenaida zenaida*.

Similar to the common wild dove, the mourning dove No. 126. Tail shorter and more square, tipped with gray; under parts vinaceous. Length, 10–10½ in.; wing, 6⅞ in.; tail, 3½–4 in.

Hab.—Florida Keys.

131. Blue-headed Quail Dove.—*Starnoenas cyanocephala*.

Upper parts reddish brown; throat black; blue crowned; white line beneath the eye. Length, 11 in.; wing, 5½–6 in.; tail, 4½–5 in.

Hab.—West Indies, Florida Keys.

(a) The Quail Dove (Geotrygon martinica).

Plumage wine red iridescent; under parts lighter, white toward tail; white band below eyes. Length, 11 in.; wing, 6¼ in.; tail, 5 in.

Hab.—West Indies, Florida Keys in summer. Very similar to No. 131 both in habits and appearance.

Note—These doves are called quail-doves, since in form they resemble the quail or partridge. They have short, broad tails without white tips to the under feathers—

“A ground dove found in wooded regions.”—Apgar.

132. White-fronted Dove.—*Engyptila albifrons*.

Upper parts brownish olive; head and neck iridescent metallic purple and bronze; forehead white; chin and belly white; breast wine color. Length, 12 in.; wing, 6¼ in.; tail, 4¾ in.

Hab.—Southern Texas, Mexico, Central America.

133. White-crowned Pigeon.—*Columba leucocephala*.

Plumage slate color, with white crown, pale buff on female; neck reflecting metallic green. Length, 12–14 in.; wing, 7½ in.

Hab.—Southern Florida.

134. Inca Dove.—*Scardafella inca*.

Upper parts grayish brown ; lower parts ashy lilac in front ; rich chestnut on wings ; outer tail feathers tipped with white ; scaled appearance due to black marks on feathers. Often called scaled dove. Length, 8 in. ; wing, $3\frac{3}{4}$ in. ; tail, 4 in.

Hab.—Arizona and Texas, Rio Grande Valley, south to Central America.

Note.—The distribution of the pigeons and doves in North America is somewhat similar to that of the partridges. We have observed that only one partridge (Bob-white) has a general distribution over a large area, and that the remaining partridges (the blue and scaled partridges) are distributed over a comparatively small area in the Southwest and on the Pacific Coast. There are twelve pigeons and doves in North America. Only one dove (the mourning dove) and one pigeon (the passenger) were of general distribution. The other pigeons and doves are found on the Pacific Coast and in the Southwestern States, and (a few of them) in Southern Florida and the Florida Keys. There are several blue pigeons and one scaled dove (the Inca dove) which has a scaled appearance caused by the black feather markings like those of the scaled partridge. The scaled partridge and the scaled dove are both found in Texas.

In the South and West doves are sometimes baited. Food is distributed daily in a certain field, and when the doves are in the habit of resorting to this field they are shot from ambush as they fly in and out. The baiting of doves is prohibited by law in Georgia and perhaps elsewhere.

135. Bobolink.—*Dolichonyx oryzivorus*.**Reed-bird, Rice-bird.**

Male.—General color in spring black ; nape yellowish brown, patch on side of breast, the scapulars, and rump white ; bill blue-black. Length, $7\frac{1}{4}$ in. ; wing, $3\frac{3}{4}$ in. In autumn resembles female.

Female.—Yellowish beneath ; two stripes on top of head and upper parts throughout, including wings, except back of neck and rump dark brown feathers edged with brownish yellow.

Hab.—Eastern United States to Western plains. South to West Indies in winter. North to Southern Canada.

(a) Western Bobolink (Dolichonyx oryzivorus albinucha).

Hab.—Dakota, westward to Utah and Nevada, north to Manitoba.

Note.—"There are no reed-birds in California, but a dozen species of sparrows and finches masquerade as such"—*Year Book, Department of Agriculture*, 1899.

Many sparrows and other small birds are sold as reed-birds in the Eastern markets.

Every one knows that our gleesome minstrel of the Northern meadows, who fills the June air with bursting bubbles of tinkling melody and is called bobolink, changes his name and dress and goes South to be slain and eaten as the reed-bird, and the practice is so old and appeals so strongly to man's most commanding organ that we must try to become reconciled to a flaming wickedness. But we do rebel when we see our familiar friends the robins offered for sale in the South, and we are ready to weep when we see wood-thrushes, divine psalmists in the North, killed as legitimate quarry on the Gulf Coast, even though they be shy and silent there, and, ludicrous to say, in some localities known as swamp-quail.—*L. T. Sprague, in Outing.*

I have placed the bobolink at the end of my list, a place most convenient to strike it off, and I hope before long this handsome song-bird of the meadows will not be an object of pursuit.

I would urge the sportsmen of the Southern States to exclude the robin and the meadow-lark from the game-list. I would, too, urge all of the States to prohibit the shooting of the smaller shore birds which are not desirable as marks or food. The larger waders, such as the avocet and stilt, which have become so rare as to indicate their extermination, might well be protected at all times. The wood-duck and the woodcock should be protected for a term of years, and the open season for these birds should then be a short autumn (*not summer*) season in the South as well as in the North.

In conclusion I would again urge the immediate establishment of bird parks, where the game birds can find the safe refuge at all times which they now have in the Yellowstone Park. I again urge all State game officials not to devote their entire energies to the propagation of fancy foreign fowls which can never survive in unprotected fields, but to give their attention to the restoration of our native game birds, the grouse and partridges, and to the protection of all game in the spring of the year, insisting everywhere upon the passage of laws (where legislation is needed) to stop the spring shooting, and looking well to the enforcement of such laws.

Ohio has stopped the breeding of pheasants.

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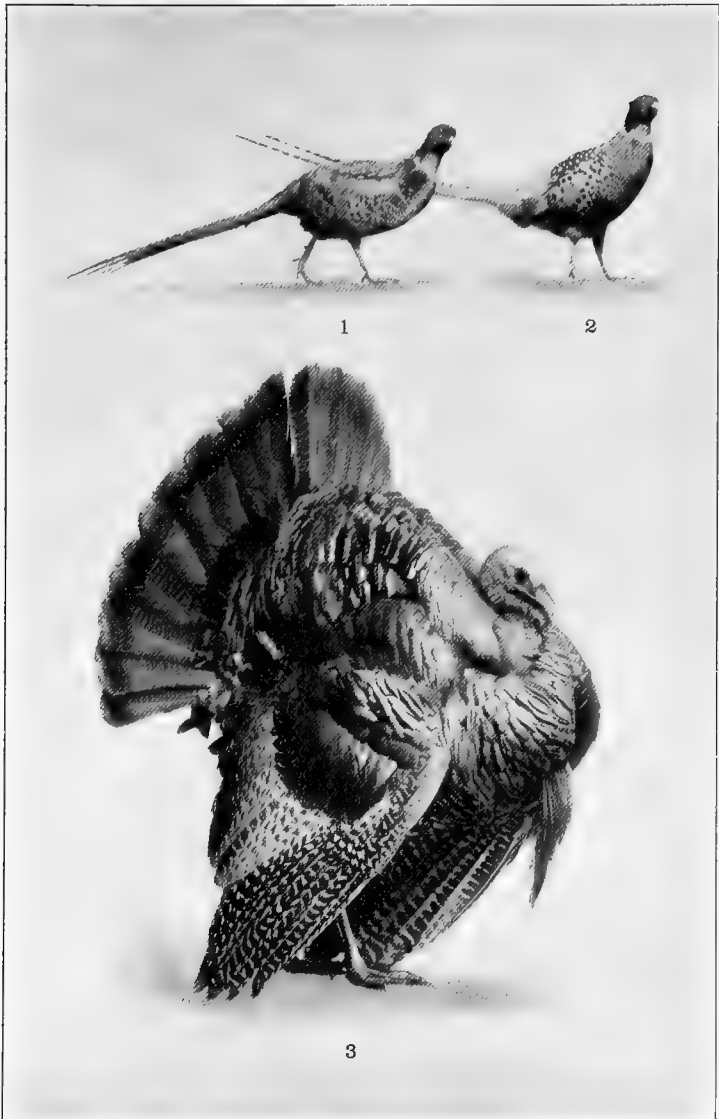
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BIRD PORTRAITS



1 English Pheasant.

PHEASANTS AND TURKEY.

3. Wild Turkey.

2. Mongolian Pheasant.



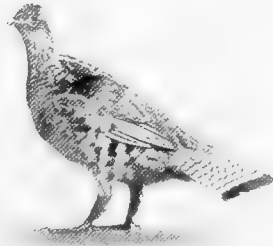
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9

GROUSE.

- 4. Prairie-grouse.
- 6. Sharp-tailed Grouse.
- 8. Dusky-grouse.

- 5. Heath-hen.
- 7. Ruffed-grouse.
- 9. Canada-grouse.



10



11



12

10. Ptarmigan, Winter.

GROUSE.
12. Sage-cock.

11. Ptarmigan, Summer.



13



14



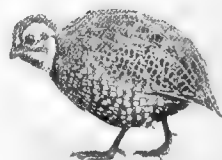
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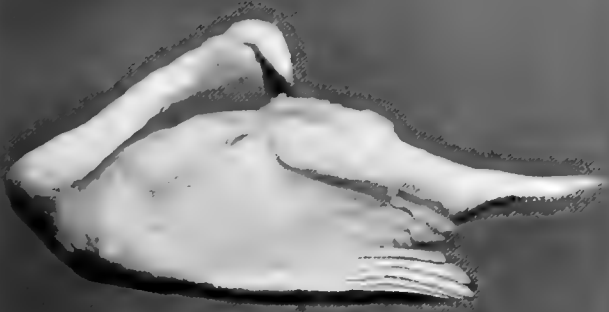


18

PARTRIDGES.

- 13. Scaled-partridge.
- 15. Gambel's Partridge.
- 17. Bob-white.

- 14. California Partridge.
- 16. California Mountain Partridge.
- 18. Massena Partridge.



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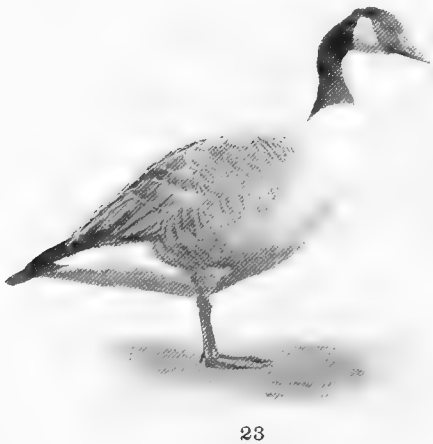
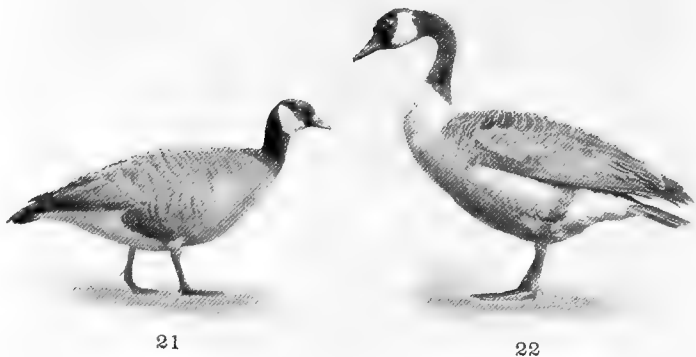


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SWANS.

19. Whistling Swan.

20 Trumpeter Swan.

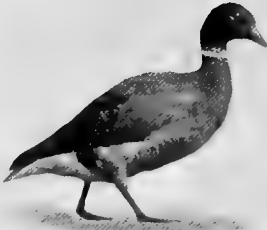


GEESE.

21. Cackling Goose.

23. Canada Goose.

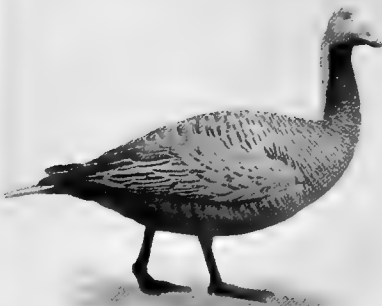
22. Hutchins Goose.



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27

GEESE AND BRANT.

24. Black Brant.
26. Emperor Goose.

25. Brant-goose.
27. Ross Snow-goose.



28



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31



32



33

GEESE AND TREE-DUCKS.

28. Lesser Snow-goose.
30. White-fronted Goose.
32. Fulvous Tree-duck.

29. Blue Goose.
31. Greater Snow-goose.
33. Black-bellied Tree-duck.



34



35



36



37



38

SEA-DUCKS.

35. Ring-neck Duck.
37. Scaup-duck.

34. Canvas-back Duck.

36. Labrador Duck.
38. Lesser Scaup-duck.



39



40



41



42



43



44

SEA-DUCKS AND MERGANSERS.

39. Red-head Duck.

41. Surf-scooter.

43. Red-breasted Merganser.

40. Buffle-head Duck.

42. Hooded Merganser.

44. American Merganser.



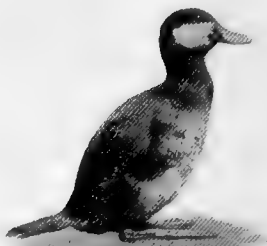
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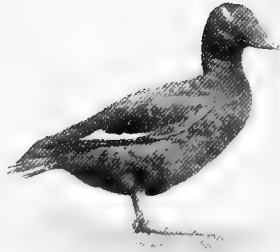
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SEA-DUCKS.

46. Long-tail Duck.
48. Ruddy-duck.

45. American Golden-eye.

47. Harlequin Duck.
49. Masked Duck.



50



51



52

SEA-DUCKS.

51. King Eider.

50. White-winged Scoter.

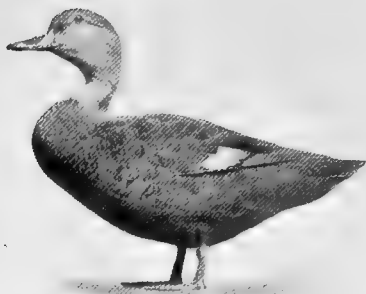
52. American Eider.



53



54



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58

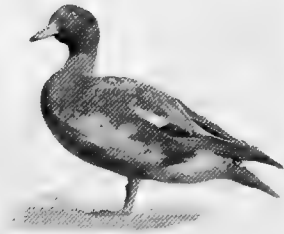
RIVER-DUCKS.

- 53. Blue-winged Teal.
- 55. Dusky-duck.
- 57. Wood-duck.

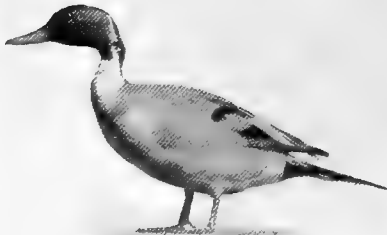
- 54. Cinnamon Teal.
- 56. Green-winged Teal.
- 58. Mallard.



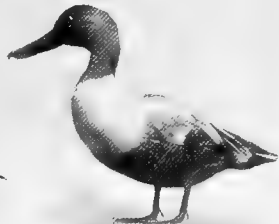
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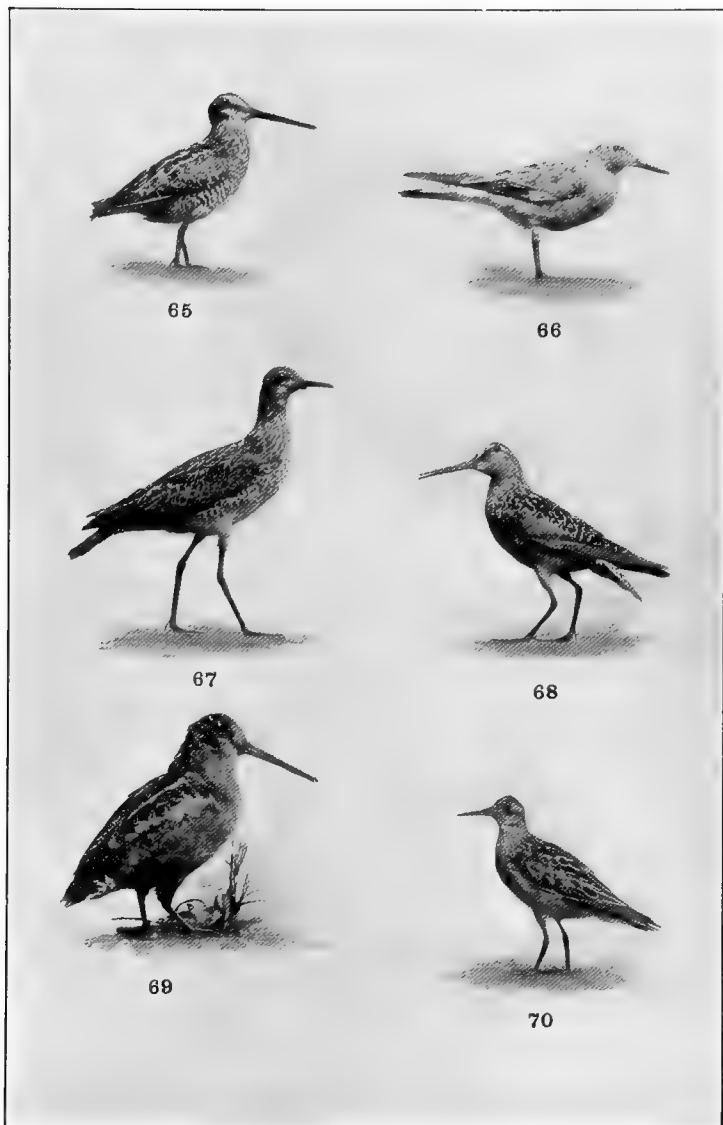


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RIVER-DUCKS.

59. Widgeon (Female).
61. Sprig-tail, or Pintail.
63. Gadwall.

60. Widgeon.
62. Shoveler.
64. Gadwall (Female).



65

66

67

68

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70

SHORE BIRDS.

- 65. Wilson's Snipe.
- 67. Bartramian Sandpiper.
- 69. American Woodcock.

- 66. Knot.
- 68. Dowitcher.
- 70. Pectoral Sandpiper.



71



72



73



74

SHORE BIRDS.

71. Hudsonian Godwit.
73. Black-necked Stilt.

72. Marbled Godwit.
74. American Avocet.



75



76



77



78

SHORE BIRDS.

75. Hudsonian Curlew.
77. Pacific Godwit.

76. Eskimo Curlew.
78. Long-billed Curlew.



79



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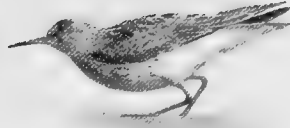
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SHORE BIRDS.

80. Ruff.

79. Willet.

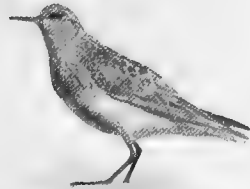
81. Greater Yellow-legs.



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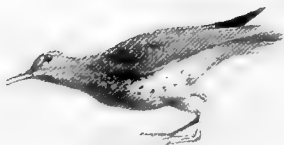
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SHORE BIRDS.

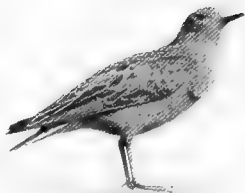
82. White-rumped Sandpiper.

83. Sanderling.
85. Stilt Sandpiper.

84. Baird's Sandpiper.
86. Purple Sandpiper.



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88



89



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91

SHORE BIRDS.

88. Buff-breasted Sandpiper.
90. Solitary Sandpiper.

87. Spotted Sandpiper.

89. Red-backed Sandpiper.
91. Wandering Tattler.



92



93



94



95



96



97

SHORE BIRDS.

92. Belted Piping Plover.
94. Semipalmated Plover.
96. Pacific Golden Plover.

93. Piping Plover.
95. Black-bellied Plover.
97. American Golden Plover.



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100



101



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103

SHORE BIRDS.

98. Snowy Plover.
100. Surf-bird.
102. Mountain Plover.

99. Wilson's Plover.
101. Black Turnstone.
103. Ruddy Turnstone.



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109

SHORE BIRDS.

104. Least Sandpiper.
106. Aleutian Sandpiper.
108. Western Sandpiper.

105. Semipalmated Sandpiper
107. Curlew Sandpiper.
109. Wilson's Phalarope.



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111



112



113



114

SHORE BIRDS.

110. Northern Phalarope.

111. Red Phalarope.

113. American Oyster-catcher.

112. Kill-deer Plover.

114. Black Oyster-catcher.



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116

COOT AND CRANE.

115. American Coot.

116. Sand-hill Crane.



CRANE.

117. Whooping Crane.



118



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121



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123

RAILS

118. Black-rail.
120. Sora.
122. Clapper-rail.

119. Yellow-rail.
121. Virginia-rail.
123. King-rail.



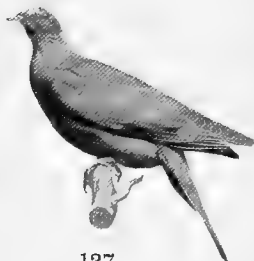
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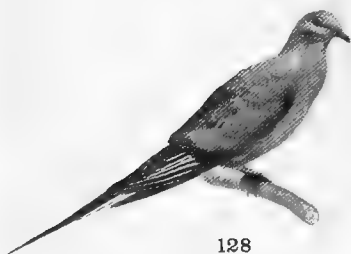
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PIGEONS AND DOVES.

124. Ground-dove.
126. Mourning Dove.
128. Passenger Pigeon.

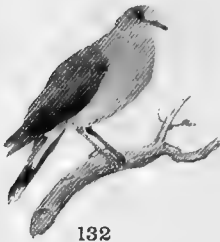
125. White-winged Dove.
127. Red-billed Pigeon.
129. Band-tailed Pigeon.



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132



133



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PIGEONS, DOVES, AND BOBOLINK.

130. Zenaida Dove.
 132. White-fronted Dove.
 134. Inca Dove.

131. Blue-headed Quail Dove.
 133. White-crowned Pigeon
 135. Bobolink.

