[Hapgood, W. and others]

Shore birds.

(1881)

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SHORE BIRDS.

FEBRUARY

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DANBURG, MASS.

Hopgood

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- I. Haunts and Habits.
 - II. Range and Migrations.
 - III. A Morning Without the Birds.
 - IV. Nomenclature.
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A - H

THE following pages are reprinted from the "FOREST AND STREAM." It is believed that their presentation in this form will be welcomed by sportsmen and naturalists.

The first two chapters were written by Mr. Warren Hapgood. They have been recognized by ornithologists as a most valuable contribution to the literature of bird migrations. The third chapter is from the pen of Hon. R. B. Roosevelt. Its humor will be appreciated by those who have shared a similar experience. The remaining chapters appeared in the editorial columns. All these articles are protected by the general copyright of the FOREST AND STREAM.

Forest and Stream Office,

39 PARK ROW, NEW YORK.

FOREST AND STREAM BIRD NOTES.

A Digest of all the ornithological matter contained in the first twelve volumes of the FOREST AND STREAM. Compiled and edited by H. B. Bailey. In press. For further announcement see the FOREST AND STREAM.

SHORE BIRDS.

HAUNTS AND HABITS.

IT was in the month of April, 1868, that we made our debut as a duck shooter on a Western prairie. Born and bred almost within the sound of the breakers on "New England's rock-bound coast," we had been taught to believe that the shore birds—Limicolæ—were, with few exceptions, confined to the seaboard, and when we saw large flocks of several species of these birds feeding on the prairies we could scarcely believe our eyes, nor would anything short of a dead specimen in hand satisfy us of our errors. A golden plover (*Charadrius virginicus*, Borck.) was secured and found to be identical in every particular with the golden plover of the Atlantic coast; and, notwithstanding Prof. Baird had many years earlier declared their habitat to be "all of North America, and visiting also other continents," we could not somehow seem to realize the fact that they were so abundant at so great a distance from the sea shore. Other species were also observed, notably sickle-billed curlew (*Numenius longirostris*, Wils.), Esquimaux curlew (*Numenius borealis*, Lath.), summer yellow-legs (*Totanus flavipes*, Vieill.), and pectoral sandpipers (*Tringa pectoralis*, Say.). We endeavored to glean from intelligent gunners of that region some information relating to the habits, food, migrations, etc., of these birds, but our labors in this direction were vain and futile. The fact was patent that no one cared to waste time or ammunition on such "small birds" as plover or curlew when deer, swan, geese, ducks and their congeners were abundant in every direction. Another very serious obstacle in the way of our inquiries was encountered, viz., synonymy. We found it very difficult to make ourselves understood when undertaking to describe a particular species, so very different are the local names of birds.

Sportemen, as a general rule, are quick, keen and intelligent, but not always literary people, and in the absence of scientific terms—some common platform upon which both parties could stand—our progress was very slow and unsatisfactory. We cannot always account for the origin or introduction and retention of such a diversity of common names for our feathered friends. It certainly is a great barrier to the acquisition of knowledge upon these topics. Names that are familiar as household words in one section are entirely unknown in another. It is about as perplexing as when two persons speaking different languages attempt to carry on a conversation. For instance, the first bird we have named above was not known in the West where we were located as a plover at all, but as a "prairie pigeon." The turnstone in Massachusetts is commonly called "chicken bird," but elsewhere "calico back." A pectoral sandpiper in our section is "jack snipe," and in others "krieker," "grass snipe," etc. One often hears in the West, or even on Long Island, the name "Dowitcher," but that cognomen would not be recognized in Massachusetts as referring to red-breasted snipe (*Macrorhamphus griseus*, Leach), but if the bird was called "brown back," he would be instantly acknowledged. A "redbreast" (*Tringa canutus*, Linn.) is variously known as "robin snipe," "grayback" and "knot." The marlin of the West is the marble godwit (*Limosa fedoa*, Ord.) of the East, and so on *ad infinitum*. This unhappy state of affairs should no longer exist. We have monetary, railroad, religious and other conferences to harmonize conflicting interests or opinions, fix values and establish rules of action. Why not have a national or universal conference to establish a uniform nomenclature for our birds? Possibly the urbane individual who occupies the editorial chair of FOREST AND STREAM and exercises a sort of autocratic influence over the sportsmen of this country would undertake to bring about this much needed reform. Whoever shall accomplish this will receive the gratitude of thousands of sportsmen, and his name would go down to posterity as a benefactor to the race. The past ten or fifteen years has witnessed a vast improvement in our

sporting literature and knowledge of birds. The works of Baird, Brewer, Coues and the rest will ever stand as proud monuments of their labors and successes. Much more is to be done. The field is still open. May we not hope the future will raise up laborers worthy to wear the mantle of their predecessors and to carry forward the work so nobly begun?

We puzzled over this matter of the shore birds for many years, trying to discover some satisfactory theory that would account for their movements and idiosyncracies. Why should certain species divide, one part going up the valley of the Mississippi and the other via the Atlantic coast, to their Northern breeding grounds? Why should some numerous species all together follow the former and others the latter route? Again, why do some of them proceed by the one route and return by the other? The inquiry seemed to lead to the conclusion that golden plover, Esquimaux curlew, summer yellowlegs, and a few other species, did take the broad valley of the "Father of Waters" for a highway northward in spring, but that the great mass of the adults did not return by the same road. A few of each species of young, or such as do not breed, may return by the route indicated. Then it was ascertained that the above-named species did not appear on the Atlantic coast in spring-time, but that all of them were abundant in autumn, both old and young. With the birds, as with ourselves, food supply is of the most vital importance. If we study the habits of these birds in relation to their food we shall find, to some extent, that the species that travel up the Mississippi Valley are of the class that run about on the fields and prairies, and pick up such worms, grubs and insects as are found on the surface of the ground, while those that follow the seashore feed mostly on such marine worms and insects as lie buried in the moist sand or mud, which must be obtained by plunging in the bill and wrenching the savory morsel from its hiding place. But in order to study carefully the habits, food and peculiarities of the shore birds we must be among them, or with them—must seek some locality where they can easily

be observed during the season of their migrations—and, if the reader will go with us early in April to the easterly shores of New England, say to Cape Cod, the most prominent point on the whole coast, and the one where most of the migrants that follow the coast line must show themselves, we will take our stand there and “see what we shall see” of these birds as they pass along. Of the swimming birds (*Natatores*) and the other orders we have at present nothing to do, nor shall we speak of such waders (*Grallatores*) as are not considered worthy the attention of sportsmen, or, in other words, our remarks will refer only to such of the waders as visit the sea shore, and will add something to our supply of food.

The winter residents, the snow buntings, (*Emberiza nivalis*, Linn.) and the shore larks (*Alauda alpestris*, Foster), have barely bid adieu to the land of their sojourn and set out for their more northern homes, when the spring season is ushered in by the soft plaintive note of the piping plover (*Ægialitis melodus*, Cab.) and the shrill tones of the ring-neck (*Ægialitis semipalmatus*, Cab.). The former is a summer resident, and rears its young within the doleful sound of the fog horn on Pollock Rip. Possibly the latter may have bred here in Colonial times, but rarely, if at all, in later years. They do not seem to be as gregarious in spring as most of the other shore birds, nor is either species very numerous. They lead an industrious life, running about upon the dry sand more than most of this order, and seem to feed on sand fleas and such other insects as they find there. By the middle of April, in a forward season, will be heard the peculiarly curved and inspiring triple note of the winter yellowleg (*Totanus melanoleucus*, Vieill.), and if we take a stroll down over the low marshes, we shall be likely to see a solitary individual or small flock feeding on the little minnows that are so numerous along the ditches and marshy inlets at high tide. Sometimes they resort to the sand flats, but do not seem to pick up any food there; nor is this their usual feeding ground. They breed pretty much all over the country, and are common in winter as far north as the Carolinas. Another early visitant is the red-backed sandpiper or win-

ter snipe (*Tringa alpina* var. *americana*, Cass.). Not numerous in spring, but quite so in fall. They are abundant at Lake Ontario and further west about the middle of May, and will be found all winter in Virginia, at Currituck Sound and points further south, where they are regarded as winter residents. They feed on the flats and around the lake shores, much the same as do sanderlings and other members of the group. In the Hebrides they mix with the golden plover and are called "plover's pages."

About the 10th of May the least sandpiper (*Tringa pusilla*, Wils.) comes gliding along trilling its cheerful, gleesome notes. There are two—possibly three—species or varieties of these graceful little creatures, commonly called "peeps." The above species is designated as a "marsh peep," has olive or yellow bill and feet, and feeds around little pools on the marshes, or on mud patches. The other species, "sand peep" (*Tringa semipalmata*, Wils.) is larger, lighter color and more gregarious than his little cousin of the marshes; has black feet and bill, feeds on the sand flats and sits, though they sometimes go on to the marshes as do the others on to the sand flats. They retire at high tide with the other shore birds to the high beaches for safety or rest, but return as soon as the tide ebbs sufficiently to allow them to feed. They are very industrious, running about, punching their bills into the sand in search of food, devouring only the choicest specimens of worms or minute mollusks, always in a hurry, and by the first of June scarcely any will be seen in this vicinity.

The sanderling (*Calidris arenaria*, Ill.) is another numerous species, which arrives about the same time of the preceding. They are quite gregarious, feeding along the edges of tide-water much the same as the peeps, and exhibiting about the same nervous energy in searching for food.

By May 20th we shall begin to hear the dual whistling note of the red-breasted sandpiper (*Tringa canutus*, Linn.), which is hailed with delight by such gunners as enjoy slaughtering them at this season of the year. Usually they are in large flocks hurrying along, stopping but a few days to feed and rest. Nor will many be seen after the 1st or 5th of June.

They have a *penchant* for "horsefoot" eggs, and display considerable ingenuity in discovering these delicate *morceaux*, as they lie buried in the sand. When any particular spot is suspected, they commence scratching *à la* hen, and poking out the eggs with their bills. Turnstones seem as well to enjoy the rich repast, often joining in the search, and when found, a free fight ensues to see who shall possess the prize. *Canutus* also feeds on the insects, fish-spawn and other glutinous substances found at low tide attached to eel grass and other aquatic plants. It is presumed they go very far north to breed, as they are abundant all the way from the Great Lakes to Cape Breton and the Magdalen Islands, or more to the eastward than most of the shore birds. The adult males begin to return about the 26th of July, followed by the females, and still later by the young, who do not all retire before the forepart of October.

Strepsilas interpres, Ill., with as many aliases as a pick-pocket, is still a very clever little fellow, but hardly belongs to any family. They arrive about the 15th of May, not in large flocks, but singly or in groups of three or four individuals, feeding along the edge of the tide, or dilligently turning over small stones or pebbles, exploring every nook and corner to find any tiny crab, flea or worm that may lie secreted there. They are not particularly shy birds, and as they decoy well, are easily killed from blinds or stands, though their call note is ever so hard to imitate. Early in August they come straggling along back, feeding much as in spring, nor do they ever go on to the marshes or fields, except when driven by wind or tide.

The blackbreasted plover—beetle-head (*Squatarola helvetica*, Cuv.) is the largest of the plover family. The date fixed for their arrival in some sportsmen's calendar is May 16, though in a favorable season they appear a few days earlier. Their round, full note is the "sportsmens joy," though we have for years protested against the slaughter of these noble birds just as they are on the verge of the breeding season. Every true sportsman must feel in autumn at what a fearful cost he gets a few days' shooting in spring. Every year the

"bay birds" are getting scarcer and scarcer until it is even now almost impossible to make a respectable "bag." One gets hardly enough to call it sport. Legislative authority has been invoked, but very little wisdom has been exhibited by that august body in framing laws to protect these birds. Often has a blush mantled our cheeks, as we have been reminded of the stupidity of our Legislators in making it a crime to kill the least of the shore birds, a peep, while any pot-hunter may slaughter blackbreasts, redbreasts, chicken-birds, winter yellowlegs and Wilson's snipe to his heart's content without fear of molestation, all through the spring migrations!

At this season of the year all of the order are socially inclined, as it is their wooing and pairing season, when they are often in large flocks, easily decoyed, and then the serried columns are cut down; nay, slaughtered by thousands, ruthlessly, by hands whose love of greed has conquered their better judgement. It requires no prophet to come and tell us that if we destroy the birds in spring time just as they are about to lay their eggs they will not return with their offspring in the fall. Beetle-heads do not go on to the fields or pastures, but keep down on the beach or sand flats, where they find an abundance of long, depressed worms with many legs upon which they feed. They are, as their food would indicate, more of a shore than inland bird, though very likely a few may wander away as far West as Iowa. The plovers in common with the other shore birds belong to the class called *præcoces*, *i. e.*, run about in search of food as soon as hatched and, therefore, require much less attention from their parents than do *Altrices*. The paternal relative reposing great confidence in the energy and skill of his spouse to protect and nurse the callow brood, literally deserts his home and family, and wanders away back, the wretch, possibly to fall a victim to some breech-loader on Cape Cod at the very spot where in spring he was observed so attentive to his youthful bride on their Northern tour.

The willet or humility (*Symphemia semipalmata*, Hart.) arrives often paired, toward the end of May. Not abundant.

Breeds in this latitude and even much further South. They are scattered over the Western States down to the Gulf of Mexico and the West India Islands, where many of them pass the winter. They go on to the marshes at high tide, but feed along the edge of the water on minnows, crabs and marine insects. More of an inland bird, frequenting wet places on the prairies and around pond holes. Not regarded of much value for food. Occasionally we shall see marbled godwit (*Limosa fedoa*, Ord.) strolling about on the sand or mud flats, plunging their long, stout bills in up to their eyes in search of small worms that are teeming there in great variety. It is alleged that they devour small fish and fiddler crabs. They do not go on to upland fields, but at high tide retire with their congeners to the sand dunes. Abundant in the neighborhood of Oregon Inlet, and further West in summer. Quiet in their manners, not flying about as much as some of the other waders. Were formerly quite plentiful in New England, but for the last decade have been scarce. The other godwit (*Limosa Hudsonica*, Swain.), better known here as "spot rump," is very rare in spring; has much the same manner and habits as the preceding, but is more likely to be caught out in an easterly storm, and driven on to our coast with golden plover; then his stalwart relative, *L. fedoa*, which would seem to indicate an Eastern or Atlantic route for their Southern migrations.

The vernal season will scarcely bring us acquaintance with sickle-billed curlew (*Numenius longirostris*, Wils.,) though a straggler may occasionally be seen. These birds hardly go as far east as the Magdalen Islands or Labrador, come on to our coast in small flocks in the fall, and linger about the high beaches, dry marshes, and along the wind-rows of seaweed which have been washed up by the tide, where they gormandize on black crickets and flies which they are very expert in capturing. They are said to roost at night on these heaps of seaweed. They sometimes betake themselves to the sand flats where they occasionally indulge in a stray minnow, paltry crab, or juvenile insect. Well distributed over the continent, they are believed to breed as far south as

Virginia. They are plenty all winter on Savannah River, and are there called "fish ducks" by the natives, but are not esteemed of value for table use. They feed there more on the marshes, and retire to adjacent islands to roost. Being heavy, clumsy creatures, they are, many of them, presumed to pass the winter within the territorial limits of the United States.

Toward the end of May a few short-billed or jack curlew (*Numenius Hudsonicus*, Lath.,) may be seen, like their congeneric relative with the long decurved rostrum, running about on the high beach, picking up black crickets, small snails and crabs. Both species have been scarce for many years.

Of the snipe family we have a beautiful representative in *Macrorhamphus griseus*, Leach). It is not numerous in spring, but is quite so in summer, and easily bagged. They are not here generally called, red-breasted snipe, but "brown backs." They stick their long bills into the mud or sand flats presumably to frighten out the insects and worms that are burrowed there, so that they may be easily captured. Very likely their sense of smell is so acute that they are able to strike at once their prey. Their sojourn to their breeding-ground is very brief, scarcely more than six weeks. The adult males begin to return in considerable numbers about the 10th or 15th of July, and by the end of August, both young and old have winged their way toward equatorial regions. There is another beautiful plump little bird (*Tringa maculata*, Vieill.) well-known on our coast in summer and autumn under various cognomens, as "Jack snipe," "krieker," "grass bird," etc., but they are rarely, if ever seen in the spring. The advancing columns occupy the broad valley of the Mississippi, especially that portion of it lying nearest to sunset. As this interesting species is not a spring visitant at Cape Cod it hardly comes within the scope of these notes, and yet we cannot refrain from a passing remark particularly as there seems to be a wide discrepancy of opinion in relation to it. The best observers with whom we have come in contact declare there are two

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distinct species or varieties, though none of the books recognize two. One is ever smaller, more delicate, and produces a finer, softer, gentler note than the other, which is more robust and utters a strong, shrill, trilling, whistling note. A casual observer would most likely pronounce them old and young, but there is such constant divergence as to preclude the possibility of harmony in one species. The habits of the two species are quite similar. Their usual place of abode is on the bare spots or amidst the short grass or mossy places on the marshes, where they seem to feed on flies, insects and mollusks, and become very fat, so much so that they are often called "fat birds." They rarely go on to the sand flats or pastures, nor do they seem to be as sensitive to cold as some of the shore birds, and although they begin to be seen as early as the 20th of July, they do not all bid farewell to these friendly feeding-grounds till into November. They are abundant in Chili and other parts of South America.

There are a few other species represented at this point, such as buff-breasted sandpiper (*Tringa rufescens*, Cab.), curlew sandpiper (*Tringa subarquata*, Temm.), Bonaparte's sandpiper (*Tringa Bonapartii*, Schleg.), stilt sandpiper (*Micropalama himantopus*, Baird), purple sandpiper (*Tringa maritima*, Brunn.), and possibly a few others, including two or three of the Phalaropes, but none of these are in such numbers as to be attractive to sportsmen or receive any special notice in this connection. It will also be observed we have made no mention of golden plover, Esquimaux curlew or summer yellowlegs (*Totanus flavipes*, Bon.), simply because they are not constant visitants to our shores in spring, though the latter does appear here exceptionally. Mr. C., a very keen observer of the habits of birds, informs us that during a period of seventy-five years himself and father had been in the field they had seen only three summer yellowlegs and but two golden plover in spring. Mr. B., who has been for forty years a gunner on this coast, has seen but one golden plover at this season.

But let us step over to the Mississippi Valley and take a seat beside our intelligent friend and naturalist, Dr. N., of

Fort Dodge, Iowa, and listen to his discourse, and we shall discover quite a different state of things. He will inform us that early in spring sickle-billed curlew and marbled godwits arrive paired, breed in the neighborhood and disappear in July, or as early as the young are fledged and can take care of themselves, and are seen no more till the following spring. Undoubtedly portions of both species go to much more northern breeding-grounds. The offspring of the previous year arrive a little later than the adults, in flocks, and remain so all summer, as they do not propagate till the second year. The young return by the same road they came. The curlew feed on dry plain or prairie land, while the godwits betake themselves to the fens or boggy places, where they can force their long, stout bills into the soft mud for worms, after the manner of woodcock. Willet arrive singly or in small groups. Not abundant. Breed. The Hudsonian godwits come along in large flocks, sojourn for a brief period, and then push on further north to breed, nor are they seen again till the next year. Kill-deer (*Ægialitis vociferus*, Cass.), called here "dotterel," are abundant summer residents—in fact, they breed pretty generally over the continent. The little sandpiper (*Tringa minutilla*, Vieill.) is also a summer resident and breeds. The white-rumped sandpiper (*T. Bonapartii*) is quite common, breeds here as well as further north, and returns with the two preceding. There are two of the dowitchers (*M. griseus*, Leach, and *M. scolopaceus*, Law.). Both appear in closely-compacted flocks in May, tarry but a short time, when they are drawn to their northern and more secluded nesting places. The first-named make their return trip mostly via the Atlantic coast, while the last named return by the same route they advanced. From the first to the tenth of May, just as the young and tender grass begins to grow, one may see immense flocks of golden plover sweeping along like an invading army. They are attracted to newly-burned prairie lands, which seem to furnish an abundance of little hard worms upon which they feed. They also frequent the newly-ploughed fields or those just sowed with wheat. They are less numerous

now than they were forty years ago, when, as we are informed, the farmers in many places believed they devoured a great part of the seed wheat, and poisonous grains were scattered for the purpose of destroying them. As the birds do not belong to the gizzard tribe—*Gallinæ*—we doubt if the allegation can be sustained. They probably go to the freshly upturned fields in quest of larvæ and grubs that are injurious to the wheat crop, and are really friends and co-workers with the farmer, as are most of the feathered tribes, rather than his enemies. They do not, however, tarry many days, but proceed to their extreme boreal breeding-grounds, nor do they, except a few youngsters—"pale bellies"—return by the valley route. Accompanying and mingling freely with the golden plover are the Esquimaux curlew, or dough-birds, in great numbers. Their habits are very similar to those of their co-migrants, but they do not get as fat. Still they are slaughtered by thousands, barreled and shipped to Eastern markets. A few only of the young return.

Upland plover (*Actiturus bartramius*, Bon.) come paired, breed and retire early. In New England they rear their young on the grassy slopes of high hills, where they remain till the middle of July, when they retreat to the river bottoms, intervals, or dry salt marshes and plains, where they feed on grasshoppers and crickets till about the 15th of August, when they silently depart. Their line of march is not confined to the seaboard, and both old and young of this species travel in company. They are a very shy bird, as any one who has attempted to hunt them will vouch, taxing his utmost skill, and even then will most likely defeat the object of his ambition. One of the most successful sportsmen and best shots in this section, Mr. T., informs us—and we insert this bit of secrecy here as a *douceur* to our disappointed brethren who have tried in vain to circumvent one of these wary creatures—that he hunts them "down wind," and as soon as one rises on his wing, he (T.) drops close to the ground. The bird's "bump" of curiosity is developed about equal to a black duck's, and not seeing any one there apparently imagines he

has been duped, or, as we say, "fooled"; and not being willing to be laughed at by his fellows, who are feeding undisturbed over the fields, he approaches the spot from whence came his "scare," and as he comes "quiddling" along trilling his alarm note, when in the right place, the gun is seized and in a trice the victim falls nearly at the feet of the gunner. He instantly drops again and remains quiescent till the birds have recovered from their fright, when he proceeds as before. On one occasion he discovered seventeen of these birds in a pasture of only a few acres on a hill, and in less than two hours, in this way, retreating and working the ground over several times, he killed the entire seventeen!

Winter yellowlegs appear in moderate quantities. Nest here and further north, and return. Summer yellowlegs (*Totanus flavipes*, Bon.), also arrive early in considerable numbers, but push on further North as soon as the season will permit. Their southern journey is mostly by some other and more easterly route. The red-backed sandpiper, *T. alpina*, better known here as "Dunlin," is a regular visitant, though not in large numbers; breeds further north. The little solitary sandpiper, "tip up," is common here as in most other parts of the country. Beetle-headed plover, red-breasted sandpiper, sanderlings and jack curlew, although occasional visitants in this locality, are not as abundant as they are further east. We are inclined to the opinion that most of these birds that pass down the valley of the Mississippi, being either immature or heavy flyers, as, for instance, sickle-billed curlew and the godwits, spend the winter in the Gulf States, Mexico or Central America.

RANGE AND MIGRATIONS.

IT must be apparent to the reader, from the foregoing, that certain species of shore birds pass up the Mississippi Valley in Spring, but do not return by that broad highway. It will moreover be seen that the species that do not return by the road are abundant on the Atlantic Coast in autumn. If these premises hold, the conclusion is inevitable, that they go very far North to breed, swing over to the eastern shores, where they recuperate, and then proceed on their Southern journey. We propose, however, to introduce some testimony in support of this hypothesis. There is, to the northward of the Great Lakes and to the eastward of the Rocky Mountain Range, a vast unexplored territory within whose boundaries are mountains, valleys, prairies and marshes. Nestling away in the quiet bosom of the mountains or sleeping gently in the valleys are many lakes and ponds, sources of numerous rivers, possible highways for future commerce. Thither for countless ages the feathered migrants have wandered in search of that solitude, that entire immunity from dangerous contact with man, not accorded them in later years along our frontiers. Here, too, must be found abundance of food suited to the wants of both old and young. Possibly this may have something to do with their line of flight. If it should be found that this region produced food peculiarly adapted to their tastes they would very likely take the shorter route *via* Mississippi Valley to reach it rather than ravel away round the Atlantic Coast, Labrador, etc., and moreover it is well known that most of the shore birds resort to fresh water lakes and marshes to rear their young. That they do populate this whole region reaching the Arctic shores in large numbers is attested by the explorers who have visited that inhospitable country. For many years naturalists have recognized these birds as belonging to Arctic fauna. In July, 1771, near the mouth of Coppermine River

Hearne writes: "In the pools saw swan and geese in a moulting state, and on the marshes some curlew and plovers." Alex. Fisher, in giving an account of Parry's first voyage, 1819-20, saw at Baffin's Bay, "Red phalarope and ring plover," and at Winter Harbor, lat. 74.47 lon. 110.48, "Shot a golden plover," and July 16, he adds: "A few ptarmigan, plover, sanderlings and snow buntings were all the land birds that were seen." Again, at the Melville Islands, June 12, "saw several golden plover." Sir J. Richardson while at Wolloston Land wrote as follows: "On the first of June, bees, sandpipers, long-tailed ducks, caccaweas, eiders and king ducks and northern divers were seen." Again, May 15, "The yellow warblers feed on the alpine arbutus as did likewise the golden plover, whose stomachs also contained the juicy fruit of the *Empetrum nigrum*. The Eskimo curlew at this time feed on large ants." McClure, while the "Investigator" was packed in the ice at Prince of Wales Straits, lat. 70 deg., after making several excursions reported the following: "The plover and phalaropes and buntings here rear their young untroubled by man around the margins of petty lakes." Dr. Kane speaks of seeing snipe at Rensselaer Bay, June 16, 1851, also at Cornwallis Island, September 4, 1850. Dr. Hayes saw the same species at Port Foulke, June 8, 1861. Mr. C. B. Cory, author of the charming little volume entitled, "A Naturalist in the Magdalen Islands," informs us he has the eggs of the golden plover taken at the Northern extremity of Hudsons Bay, and that they are common there.

The above references will, we think, be sufficient to satisfy the average mind that the birds do reach very high latitudes in considerable numbers, and that they breed there. The enervating duty of nidifying, laying, incubating and rendering unto the juvenile specimens such brief care and protection as the mothers of *præcoces* might be expected to bestow, seems to generate a desire for a journey to some fashionable watering place. Possibly the food they find so abundant, earlier, around the lakes or marshes, now gives out, or their tastes change and they hanker after marine worms, or the

berries of the coast, and they set out upon the journey to Baffin's Bay, Smith's Sound, or Labrador, where they again regale themselves in the fresh bracing air of that isolated region. There are hundreds of miles, up and down the coast of Labrador, of low plain lands, which produce great quantities of berry-bearing shrubs. Some of these berries are not unlike our blue berries, only larger. They are called by the natives "gallou berries," and the birds that feed on them "gallou birds," probably a corruption of curlew. The berries are also called "rotten apples." Upon these berries the Esquimaux curlew and dough-birds feed. Dr. Coues, in his observations in Labrador, in 1860, says of these birds: "Their food consists almost entirely of the cowberry (*Empetrum nigrum*), which grows on the hillsides in astonishing profusion. It is also called the 'bear berry' and 'curlew berry.' It is a small berry of a deep purple color, almost black, growing upon a procumbent-running kind of heath, the foliage of which has a peculiar moss-like appearance. This is their principal and favorite food, and the whole intestines, the vent, the legs, the bill, throat, and even the plumage, are more or less stained with the deep purple juice. They are also very fond of a species of small snail that adheres to the rocks in immense quantities, to procure which they frequent the land-washes at low tide." The birds as far south as Cape Cod, when shot, still have the anal and tibial feathers discolored by the excrements. We are informed by shipmasters and fishermen, who have often visited the coast of Labrador, that the birds come stringing along down over the mountains and hills on to the plains in myriads to feed on these berries. There are no towns away up on the coast, but a few scattered Esquimaux huts, where the hardy fishermen go ashore to cure their fish, and it is during these visits that the observations are made. The old birds, after resting awhile, move on to the Gulf of St. Lawrence, Magdalen Islands, Newfoundland and Nova Scotia, and thence southward, to give place to the young that must soon follow. Mr. Cory reports "young dough-birds are due here, Magdalen

Islands, about 8th September; young golden plover come about 20th September.

A friend at Newfoundland writes, "Snipe, sanderlings and yellowlegs are plenty—the latter breed." Thinks the Esquimaux curlew breed at Labrador. They are so plenty the fishermen kill them and salt them up in barrels. They arrive at Labrador before they reach Newfoundland in millions, so that they darken the sky as they rise. Large flocks of sanderlings and grass-birds arrive late in the fall. He believes the birds go to Prince Edward's Island, and thence to South America.

Another good authority remarks as follows: "At the Magdalen Islands millions of golden plover and dough-birds come every year, in August and September. They feed on the uplands, and go on to the high beach at night to roost. So plenty are they that on a dark night one with a lantern and stick may kill bushels of them." The same party reports seeing, in 1864, as late as October, on the coast from Chediac to Dalhousie, immense numbers of these birds. Mr. E., an intelligent merchant of Boston, informs us he has visited Prince Edward's Island for nine consecutive years, and has failed but twice to get good shooting. They have a "flight" of birds there on an east wind just the same as at Cape Cod. Is of the opinion that birds feeding in a certain field this year, unmolested, will return the next year to the same field. In one day he shot green plover, Esquimaux curlew and summer yellowlegs in a field where, as he alleges, they came to feed on herds-grass seed. Many of the birds reach the Bay of Fundy by crossing the narrow belt of land from Straits of Northumberland.

If the birds strike boldly out to sea from Nova Scotia in a southerly direction, as it is very clear they do, it would carry them to the Lesser Antilles. Now, it is settled beyond a peradventure, that they do have a "flight" there just the same as at Newfoundland and Cape Cod. From the Barbadoes, the most windward of the Windward Islands, we have the most positive assurance of a "flight." One of the memorable events recorded in the almanac of the island is "Sept.

12th, 1846, great flight of plovers." The U. S. Consul at that place writes us in reference to this matter, October 29th, 1878: "By all accounts the island was covered with them. They were killed in the streets with sticks." The following from a reliable source is so clear and pertinent we venture to quote entire: "I have seen none of the birds myself only what we call grassbirds, but by all accounts they come here the last of August and first of September till October, a few, *but at no other time of the year*. My idea is that they take a due south course from Newfoundland and Nova Scotia. When they go back in the spring the trade winds are strong from N. E., and they are blown more to the westward, and strike Georgia and the Carolinas and so make their way North to go over it again." Further on he remarks: "I have seen some black-breasted plover and yellowlegs. They are very tired when they arrive here; so tired sometimes, they can't stand up." Again, he writes, as if to corroborate his previous statement that they take a "'bee-line' for the West Indies. I was coming home (to Boston) from Europe one voyage and passed large flocks three hundred miles from land, going South, in September."

Capt. * * * * informs our friend E. that one autumn he saw thousands of plover in the Gulf Stream nearly five hundred miles from land, skipping about and lighting in the water and on accumulated seaweed and other vegetable matter. He is quite sure the birds go by this route to South America. Other shipmasters have made similar statements. It must, however, be understood that when these people who are not naturalists speak of "plover," they are liable to refer to any of the marsh or shore birds. In order to make it more clear that most of the shore birds do visit the Barbadoes, we insert the following extract from the History of the Island, kindly furnished us by Capt. P., the Consul at that place. "The number of indigenous species (of birds) do not amount to fifteen. About forty species and varieties arrive toward the end of August, and merely alight on their passage to some more distant land.

. . . . If during this period a southerly wind and rain prevails, they alight, whereas fine weather tempts them to continue their progress. . . . The greater part are then seen to fly very high, and to keep their course direct to the east. . . . The black-breasted plover (*C. Virginicus*) is the most numerous. The male appears about the 25th of August, and the female (young?) which is called in Barbadoes the 'white-breast plover,' after the flight of the males has ceased, about the middle of September." Here is a partial list of the migrants that come to the islands: "*Squatarola helvetica*, Linn.; *C. Virginicus*, Borck.; *C. semipalmatus*, Kaup.; *Streptilas interpres*, Linn.; *Numenius hudsonicus*, Lath.; *Numenius borealis*, Gml.; *Totanus flavipes*, Gml.; *Totanus chloropygius*, Vieill.; *Tringoides macularius*, Gray; *Tringa bartramia*, Wils.; *Tringa canutus*, Linn.; *Tringa pectoralis*, Say; *Tringa pusilla*, Wils.; *Macrorhamphus griseus*, Leach; *Gallinago Wilsoni*, Bon."

On departing from the Windward Islands the birds take an easterly direction, which would, if persisted in, carry them to the coast of Africa—in fact it is a prevailing opinion among the inhabitants that the birds do go to that continent, nor do we presume the distance would be an insurmountable barrier. Other considerations oppose the conjecture. They would be likely there to meet allied European species and fraternize with them, and either be carried there or bring back those they met, and in course of time lose their identity; nor is any such return flight ever witnessed. The reason of their taking an easterly course in setting out upon the long voyage is, probably, to overcome drift of the "trade winds." If they are to reach Guiana, or even pass Cape St. Rogue, a distance of two thousand miles, with a quartering current of fifteen knots on setting out, they must start up into the wind or they will impinge the continent far to the westward of their objective point. Any one who has ever seen a skillful oarsman cross a rapid stream must have observed that he always heads his boat up stream in starting, or he would reach the opposite shore far below the place intended. But the birds, in their migrations, are not circum-

scribed in such narrow limits as the Lesser Antilles. Their range embraces nearly the whole of the West India islands. A letter from C. W. H., of Turk's Island, is of such general interest that we make from it a very liberal extract: "Golden plover, sometimes in large numbers, a few upland plover and curlew also arrive here from the North regularly about the end of August or 1st of September, and remain with us generally from four to six weeks, although a few stragglers stop a little longer. If these latter happen to be golden plover, after a short time they lose their yellow and pretty-marked dark-mottled plumage, and don a gray suit of feathers, looking like quite a different bird from what they did when they first arrived here, and are then sometimes called 'gray plover.' These birds go South from us, and they evidently pursue some other route going North, as we never see them taking flight in that direction. I have often heard old sea captains remark that they saw flocks of these birds in the autumn going South, but never in a single instance have they met them going North at any time of year."

Mr. C. B. Cory, in "Birds of the Bahama Islands," gives a similar list to that of the Barbadoes, but under somewhat different synonyms. He does not, however, recognize the godwits, curlew, *Tringa bartramia*. or *Tringa canutus*, as visitants of the Bahamas, nor are the former found in the Barbadoes catalogue. The godwits and sickle-billed curlew are rather clumsy flying birds, and it is possible very few reach these remote islands, but *Tringa bartramia* (Wils.) *T. canutus* and *Numenius borealis* are among the migrants whose "range" is the widest of all the shore birds, and we cannot account for their non-observance on any other ground than by supposing that at the time of his arrival, late in December, these birds had mostly departed South. He had to rely on the authority of Dr. Bryant, Mr. Moore and others, for information of these birds during their migrating season, September and October. His winter observations lead him to believe that a few of several species each pass the winter on those lovely islands. He does not, however, seem to find any of them abundant at that season, except the two least

sandpipers, nor do they, to any extent, remain on the islands to breed in summer. As a rule they all go North to breed, and they also go further South to pass the winter. A straggler may be occasionally found in winter, even as far north as New England, but this is an exception to the general rule. Their return trip in spring is very far to the westward of these islands, and of course would not be observed at that season.

Mr. F. A. Ober, in his admirable work entitled "Camps in the Caribees," enumerates seventeen species of these waders as "birds of the Lesser Antilles," all of which come from the United States. He does not seem to have met either of the godwits, *Tringa canutus*, *M. griseus*, or *Numenius borealis*. Why he did not meet with them is a marvel, especially the last named, which elsewhere travels in company with *C. Virginicus*, and is recognized by other authorities as a visitant to adjacent islands. Possibly at the period of their passage he was in the mountains securing some rarer specimens of that region. But most of the Limicolæ do reach these islands, a part of them coming in a "bee-line" from Newfoundland, and a part coasting along down to the Carolinas, dropping off on the road as inclination or strength might dictate, and striking out southeast till they reach the Windward Islands, where again they join the columns from the north. It would not be at variance with the facts herein collated to suppose that the birds that set out upon the lonely journey from Newfoundland or Nova Scotia would pass to the eastward of the Bermudas while those that pursue the coast line, if caught out in a westerly gale, would be blown on to that group. A letter from a reliable gentleman (W. W. D.) residing on one of the Bermudas, informs us "the plover and curlew, before the country was so broken up for agricultural purposes, were quite plenty in large flocks about the marshes and valleys, but now they are quite scarce. Generally make their appearance about September and October. They always show themselves after a strong westerly gale." He also incloses Lieut. Dennison's list of one hundred and seventy-nine species of birds that visit the islands.

The list is very complete and covers about all the migratory waders that visit the east coast of North America and West Indies, except winter yellowlegs, sickle-billed curlew and great marbled godwits. We would like now to take the reader back to Cape Cod; if he has not already had Cape Cod *ad nauseam*, and see what effect an easterly storm has on the birds there. If for three or four days during the flight period there happens to be a strong northeast wind, attended by considerable rainfall or fog, we are almost sure to get a "flight" of birds. Possibly we could not better illustrate this than by the recital of an instance that occurred under our own observation. On the 29th of August, 1863, we made a trip to Chatham, Cape Cod, for the purpose of enjoying several days' plover shooting. The weather was fine, with a westerly wind, and birds very scarce—in fact, the outlook for shooting was gloomy in the extreme. In a couple of days, however, the wind hauled to the eastward and blew fresh, attended by a dense thick fog and considerable rain. Toward evening of the third of September the deflected line of golden plover and Esquimaux curlew struck the shore and were at once driven to the fields or pastures. A few gunners happened to be there, and seventy-seven of the birds were bagged. All night long the birds could be heard crying and calling to each other for help. There were some eight or ten gunners stopping at the same house, and of course there was a great deal of excitement and confusion getting ready for the morrow's slaughter. Long before the golden light had tinged the eastern horizon the next morning, breakfast was dispatched, lunch baskets packed, ammunition snugly bestowed—there were no breech-loaders then—teams were at the door ready to take and distribute the parties in the various fields from one to four miles distant. Quite early the birds came rushing along in the wildest confusion, but paid very little attention to the decoys or call notes. Those that did alight seemed perfectly bewildered and stared about as much as to say, "Where are we?" "What has happened?" Flock after flock went rushing along, pellmell, as best they could

in a gale of wind, till night fortunately overtook the weary birds and their pursuers. The parties drove back to the house one after the other, and spread out the contents of their "bags" upon the floor—two hundred and eighty-one golden plover and Esquimaux curlew together with a few beetle-heads! It was a grand sight! Of course there was some pretty tall talking done on that memorable night. We would not vouch for the truth of all the stories that were told. A slight deviation, a little—just a little—exaggeration upon such an occasion is pardonable. There was about as little sleeping done in that house that night, as was ever done in a house of its size. Well, teams had been ordered for the next day (Sept. 5th.,) with every prospect of favorable results, when, lo! the wind had shifted to the northwest! It was a cool, crisp, bracing morning, and scarcely a bird to be seen anywhere. This little narrative will show how dependent we are at this point upon an easterly storm for golden plover and curlew-shooting. It so happens that for years there will not to be at the proper time a storm sufficient to throw the birds on to the land, and of course there will be no shooting during those years. In this instance, had the birds not been on the wing to the eastward of Cape Cod, they would not have been blown on to the land by a wind from that quarter. A change during the night enabled them to escape "westlin winds and slaughtering guns," nor did they wait for daylight or lunch. On departing they take a southeasterly course evidently to get back on to their line of travel as soon as possible. A "flight" of birds is liable to occur anywhere up and down the coast during the migrating season, when the wind and other conditions are favorable. Mr. S., afterward, "His Honor, the Mayor" of Portland, writes October, 1878: "There was the most immense flight of golden plover and Esquimaux curlew on a Sunday, the last of August, I ever knew on the coast, during a sudden storm, but a northwester following closely, they all disappeared." The same stories are told at Currituck Sound and other points along the coast. If then the line of flight of these birds is due south from

Newfoundland for a period of six weeks, and if during that time an easterly gale prevails the results will be as we have stated. Several trustworthy fishermen who are excellent sportsmen as well, and who have often been cod-fishing off George's Banks, seventy miles east of Cape Cod, inform us they have frequently seen golden plover and dough birds there in large flocks, always mixed up together, going south, and for weeks, when not too foggy, there was scarcely a moment when one or more flocks were not visible. Captain B. wrote us from Cienfuegos, June 23d.: "On the passage (from Boston) May 27th, forty miles southeast from Nantucket, I saw, distant from the ship, not over one hundred and twenty yards, eight plover swimming very gracefully on the water. They took wing and shifted a few hundred yards further to the westward." He gives a very interesting account of the natural accumulation of marine vegetables in the eddies at sea, and thinks the birds stop to rest and feed on tiny crabs and other marine animals, myriads of which make their homes in these bunches of seaweed. Again we quote from a letter of September 11, 1879: "August 12, sixty-seven miles southeast of Nantucket, I saw quite a large number of migratory birds."....."I saw no large birds on the wing, but I passed several flocks of them sitting on the water, and either feeding or bathing. There were at least three kinds." We have cited the above very reliable authorities to prove that if these birds get weary on the long voyage of over two thousand miles, from Newfoundland to the West Indies, they can safely stop anywhere to rest as they are graceful swimmers.

We shall now attempt, very briefly, to follow our beautiful little winged wayfarers on their voyage to South America. The data on hand, however, are few and quite incomplete, and we have had to patch them out and fill up gaps and interspaces as best we could. We hardly know how to express to the reader, intelligently, the great difficulty of obtaining from any point of interest in South America the most meagre information in relation to these birds. We have from several correspondents in various localities the most posi-

tive assurance that they know nothing at all about the birds, nor can they obtain from those around them any items of interest upon the subject. None of the books that have fallen under our notice give any detailed account of the migratory shore birds that visit the continent. From some books of travel, special papers read before certain societies, incidental remarks here and there, and from our own correspondents, we have been able to glean such information as to warrant the belief that these birds not only reach the continent in immense numbers, but that they cross the equator and pass as far south as Patagonia or Terra del Fuego. This theory is, however, pretty conjectural and liable to great modification by further investigations. The evidence to sustain it is not as ample as that we had the satisfaction of presenting in support of the theory that the breeding-grounds of these birds embrace even polar regions, but by grouping and cementing the few scattered links we trust the chain is strong enough to sustain at least a portion of its own weight.

We know, then, very well that these birds *en masse* do leave the West India Islands in September and October. But where do they go? Not northward, certainly, at this season of the year. We have, however, the most reliable testimony that they are very abundant in Guiana about the same time of their departure from the Antilles. Our friend Capt. B., who is an intelligent gentleman as well as an enthusiastic sportsman, was at Demerara with his ship about the end of September, 1877. While lying there his friends invited him to participate in a plover shooting excursion. In fact, he had several days of the grandest sport in this line he has ever witnessed. Another voyage was made the next year to the same place, but he arrived six weeks later expecting to enjoy a repetition of the previous year's sport. He went to his friend and asked him if he could get a few days' shooting while his ship was taking in cargo. Mark the reply. "Why, Captain, you are too late! Had you been here a month earlier you would have had splendid shooting, as there was an extraordinary 'flight' of birds, but now they are all gone!" Further inquiry satisfied him that in Sep-

tember and October there is a "flight" at Guiana, just the same as there is at Labrador, Newfoundland, Cape Cod and the Barbadoes. A letter from the ornithologist of the National Museum at Rio de Janeiro, under date of July 9, 1879, throws some light upon the subject. "I found *Charadrius plumialis*, Wils., on the island of Marajo in the month of December in flocks of about twenty individuals. Later I found it in the month of May in Rio de Sul and in December, 1878, near Rio de Janeiro at Lopopember in a small flock of twelve individuals. This bird seems to me to be one of passage in these parts, because in Rio de Janeiro, for example, they are known as migratory birds, appearing only in the wet season, and in other places they appear always in flocks of ten, twenty or thirty individuals." As the plover are accompanied in their departure from the West Indies by many other species, so we may infer that, notwithstanding they were not seen at Rio, still they were abundant in the vicinity. We are informed that during the migrating season these birds are plenty at the mouths of the Rio de la Plata and further south, and we are not quite clear that they do not breed there. They certainly have time enough. Brant are not on their breeding grounds over three months, and *Anser bernicla* must require as much time to propagate as *Tringa pusilla*. A valued correspondent (Prof. B.) writes January 3, 1881, from Concepcion del Uruguay: "All the *Limicolæ*, with the exception of *Vanellus cayanensis* and possibly *Rhynchteaca semicollaris*, are migratory to a greater or less extent at this place." (The two exceptional species are peculiar to South America.) We must not forget that the seasons there are the reverse of ours—*i. e.*, their autumn corresponds to our spring, their winter to our summer. All the *Limicolæ* introduced here have large, strong wings and are capable of sustaining long-continued flights. In tracing these birds to the northeastern shores of South America we have left them in a hot place, not over six degrees north of the equator. Now, we do not suppose any of the shore birds—possessing as they do the means whereby they can put distance so rap-

idly behind them—will tarry for any great length of time in the torrid zone. Their natures seem to lead them to temperate, north temperate, or even frigid zones. They must pass at once from the chilling, repulsive blasts of our autumn across the equator to the attractive, wooing breezes of a Southern spring. They are very sensitive to heat and cold, and it is not in the nature of things that they should remain four or five months sweltering under a tropical sun. A few may linger, as seen at Rio, down into December, but most of them must have “crossed the line” before the end of November. The fact that the people of the torrid zone are ignorant of the existence of these migrants is proof that they do not stay there during all the long Northern winter months. Those seen so late as December at Rio must have been the tail end of the autumn flight, nor would they be at all likely to abide as near the equator as the mouth of the La Plata, lat. 35 deg., but would push on still further south, even down to Cape Horn to regale themselves in the cooling breezes of that region. Very few if any of these birds north, breed as near the equator as 35 degs. Most of them seem to be more ambitious to reach the seventieth parallel. May we not then safely conclude, in the absence of positive evidence, that their habits south of the equator would correspond with their traits north? It is not very clearly established what route they take in passing from Guiana to Patagonia. Whether they follow the coast line and double Cape St. Rogue, or take a shorter or more direct route across the country, is not so fully determined. The weight of evidence is in favor of the direct route. Some of the main branches of the Amazon reach up very nearly to the head waters of the Paraguay, and these river valleys would seem to offer natural highways for our migrants. The birds seen at Concepcion would most naturally follow this route to that inland town. Then the mountain ranges are mostly parallel to this line and the birds seen at Rio de Janeiro may have flitted along down the valleys and water courses to that point. Some of the stronger winged, as *Charadrius Virginicus*, *Numenius borealis* and *Totanus flavipes*, may follow the

coast line, or they may divide as they do in going north in spring, on a question of food, some taking the shore and some the inland route. Still there is a serious obstacle in the way of their following the shore. The "trade winds," which blow constantly from S.E., would be likely to drift them inland, and this possibly may account for their appearance at Concepcion. The same influence would bear upon them on their return trip, though it would not be a head wind. But the birds do return the next autumn, say, March and April, and do arrive on the northern shore of the Continent. From this point one would naturally expect them to return by the same route, which undoubtedly they would do were there no disturbing causes, but in crossing the Caribbean Sea they meet the northern "trade winds," which blow at an average N.E. current of fifteen knots from the ninth to the thirtieth degrees of north latitude. Of course at either extreme there is very little, if any, observable current, not enough to impede the progress of the birds whichever way they might wish to steer. We have seen, however, by the letters from the Barbadoes and Turks Island, that they do not come there in spring. They are forced by the trades down on to the coast of Central America and Mexico, from whence they beat their way up across the Gulf, some reaching Cape Cod via the Atlantic coast, and some turning up the valley of the Mississippi, soon reach Fort Dodge, where they will be heartily welcomed by our friend, the Doctor, having completed their circuit as hereinbefore narrated.

W. HARGOOD.

A MORNING WITHOUT THE BIRDS.

ON the 8th day of August, 1881, the good yacht *Au Revoir* started from the neighborhood of Islip, well provisioned for a two weeks' trip, and carrying its load of piscatorial science safely housed in its comfortable cabin of some ten feet square and five feet high. Extensive accommodations are not a feature of the yachts of southern Long Island, for the reason that while the bay is sixty miles long and four wide it is for the most part less than two feet deep. The true yachtsman, however, can "stow" himself, and a prodigious deal besides, in a very small space, and "our voyagers" were naturally good yachtsmen as well as great fishculturists. Unfortunately the Commissioner is fond of gunning, and has long held the theory, which no amount of experience has removed, that there will some time or other be a great flight of snipe along the beach on the south of the bay. So he insisted on bringing guns, cartridges, snipe decoys and all that along; and, more unfortunately still, he made up his mind from the signs in the heavens, the direction of the wind, or the motion of the tides, that the ninth day of August was the day on which this flight would take place. With this idea in his heart he headed the *Au Revoir* to the east, intending first to investigate that part of the water which was contiguous to the best sniping grounds.

No one who has not enjoyed the comforts of a cabin ten feet square, with just height of ceiling enough to enable one when sitting on the berth—which answers the double purpose of settee by day and bed by night—to take a drink of water without hitting one's head against the timbers of the roof, can imagine how snug it is. And when their first destination had been reached, anchor let go and sails furled, the explorers found the night settling down upon them and were glad to take refuge in their cosy home, get out their table luxuries and superintend the cooking of their meal. Appe-

tite is a permanent passenger by every yacht; it lends a spice to food, assists in the cookery, helps along digestion and aids in many pleasant ways. Weariness smooths the small pillows, softens and widens the hard and narrow beds and brings balmy sleep. Supper over and even the bright rays of the kerosene lamp which lighted up the cabin like a private sun could not keep the party awake, nor persuade them to attend to the piles of literature they had brought to while away what never comes—the unoccupied and waste time of yachting.

Four o'clock A. M., and Mr. Green remarked that if they had come to shoot snipe it would not do to lose the best part of the day. In ordinary life there may be a question which is the best part of the day. The business man may consider that from ten to three covers the case; the belle may select the same hours, but from a different portion of the twenty-four; to the gourmand the dinner hour is all in all; to the speculator, the time of meeting of the Stock Board; to the lover, the hour when his mistress is visible;—but to the duck or snipe shooter, no time equals that from dawn to full sunlight. There was no need denying Mr. Green's sage remark, though Sloth begged for a little more "folding of the hands to sleep," and the Commissioner was fain to set out sleepy and breakfastless toward the shore in the dingy, accompanied by guns, ammunition, false birds and the paraphernalia of the fatal art.

"Bay snipe," a term that includes all the sandpipers, plovers, sanderlings, waders and snipes that follow the coast in their annual migrations from their summer nesting places in the neighborhood of Hudson's Bay to their winter feeding places "away down South"—nobody knows exactly where or how far—are exceedingly gregarious in their nature. Therein lies a weakness that has proved most fatal to them and thinned their numbers from countless myriads that once fairly swarmed along the shore of the Atlantic Ocean during the summer and early autumn to a few desultory birds that scarcely ever constitute what is in sporting technique known as a "flight," which means a continuous movement of flocks

sufficient to give the gunner remunerative and satisfactory sport for one or more days at a time. These birds are of all sizes, from the sickle-bill curlew, that stands as high as a Shanghai chicken and weighs one-half as much, down to the tiny "ox-eye," or "hawk's eye"—the name and its derivation both being in doubt—which is about as big as a wren and furnishes as much food as though one bit one's thumb. But, large and small, they are all possessed of eyes so brilliant and clear, and powers of flight so strong, that they would rarely be shot were they as shy and crafty as they are strong and beautiful. Their social qualities and individual affections are too largely developed for their good. A "solitary traveler," or a flock making its way safely up in the blue empyrean, far beyond the reach of even a "wire cartridge," on perceiving another flock, real or imitated, calls aloud with pleasure in soft, musical whistling notes, and on receiving an answer—a poor simulation often of its own call—descends confidently to death and destruction. There are few more exciting experiences in the sportsman's life than in "whistling up" a flock of bay snipe to the decoys. The man conceals himself in an artificial "blind," or by piling seaweed up around him, while he lies on his back in a waterproof coat. Our Fishery Commissioner was a sporting sybarite, and sat in a camp chair and had an artist's umbrella to shield him from an excess of sun, so he had to build a tall blind of bushes. The Superintendent, always discovering new ways of doing things, while he approved the camp chair, repudiated the tall bushes and built up a huge rampart of seaweed, simply because seaweed was abundant along the shore, and so seaweed being naturally there should have been the best thing as a cover. But the Commissioner argued that such a mountain of seaweed would scare all the birds out of the bay.

The decoys, or "stools" as they are usually called, are made of wood in a rough way and painted not more like the natural bird than the law allows. A long stick is thrust into their body for the double purpose of legs and to set them up with on a shallow, sandy point, which is always chosen.

These roughly manufactured, spurious snipe are, however, wonderfully delusive, and at a short distance cannot be distinguished from a flock of living birds. As soon as the preliminary preparations are made, the stools set out and the sportsman hidden, the latter expects the former to "open the ball"—that is, a single bird say, already perhaps having seen all his sisters, his cousins and his aunts killed by similar ambush and trickery, is wending his solitary way to the fair sandbanks of the South. He catches sight of the false pre-
sentments, joy fills his heart—which has learned nothing by experience—and in them sees possibly his lost kindred. He calls aloud; the false friends or relations seem to answer, though their voices are hoarse—from wet feet and cold, doubtless.

Unsuspiciously he drops from the clouds; and with outstretched neck and expanded wings he sails gracefully and confidently up to the blind. There is a flash of lightning and a roar of thunder, and his body lies dead upon the sand, while his soul has gone to the "Happy Hunting Grounds of the Hereafter," to be murdered over and over again through all eternity; for if there are Happy Hunting Grounds, there must inevitably be hapless game to hunt. A flock, likewise, comes in the same way, only crowding and jostling one another and hurrying to be first in at the death; and then the sportsman's happiness is supreme, and his art tested to its utmost, for then he can only be said to have justified himself if he shall have killed two or more with the first barrel, as they are crowding and crossing one another; and at least one with his second barrel.

As much depends on the sportsman's skill in whistling a correct and loud imitation, as in his accuracy and rapidity of aim. The variety of species is very great. Among the ordinary ones will be found the following, some still retaining their quaint Indian names: The Sickle-bill curlew, a large, brown bird, with a curved bill, which is occasionally eleven inches long; the Marlin, another brown bird, with a bill nearly straight, in fact bent slightly upward toward the point; the Jack curlew, like the sickle bill, but smaller; the

Willet, about the same size as the last, with a light gray body and black and white wings; the Bull-head, or Black-breast Plover; the Golden or Greenback Plover, two fine birds for the table, the latter the better of the two; the Yelper, or large Yellowlegs; the Small Yellowlegs; the Dowitcher, or Dowitcher, an excellent table morsel, and the only true snipe, ornithologically considered, in the entire list; Robin-snipe, somewhat similar in appearance to the Dowitcher; Brant bird, or Turnstone, a beautiful but rather tough variety; the Kricker, or Shortneck; the Peep, or Longshanked sandpiper; the Ringneck; the Sand snipe; the Surf snipe and the Ox-eye, and others which are seen less frequently. Every one of these has its own individual and characteristic whistle, which must be imitated by the gunner as nearly as possible. Each variety must be distinguished and recognized as soon as seen, for they often fly in perfect silence, and will not notice the decoys unless called. They are recognized by their size, color and manner of flight; and an experienced gunner, with perfect eyesight, can tell them apart at a prodigious distance. Of them all the "Jacks" are the most wary, and as a consequence maintain their numbers less diminished than any of the others. Some varieties, like the Golden plover, have been almost exterminated, and in olden times a day's sport was not determined by count, but, like the Biblical feast, by bushel-basketfuls. As they come to the stand, they hover and set their wings, and drop their legs as if to alight; and will often do so if undisturbed; but the true sportsman never waits for that, but picks out a crossing pair or more and shoots at those. At the report the frightened flock will dart about in terror, "skiver," as it is technically called, making the second shot as difficult as the first is easy. In a moment they will have so entirely regained their courage that those which escaped will wheel and return for a second or third shot, until sometimes they are all killed.

The sport, if it is good and the birds plenty, is exciting. The variety of species, the difference of call and flight, the uncertainty of bringing the game within range, when it is hesitating whether to come or not, and the difficulty in se-

lecting the best part of the flock to kill the greatest number, lend a charm which is found in no other kind of sport. Alas! however on this particular occasion there was error in the calculations. The Commissioner's prophecy, like Vennor's, was simply the contrary of what it ought to have been. In spite of winds and waves, the movements of the planets and the conjunctions of the constellations, there was no flight on the ninth day of August, 1881. Seth Green having armed himself with the ship's glass, not the customary glass of yachting parties, and surveyed the horizon from the moment it was visible till the sun appeared, announced that there was not a bird anywhere, and utterly refused to wait for them to come from some "undiscovered country," while there was possible fishing to be had anywhere in the land of the living. As he knew nothing of this kind of shooting, it was only natural that he should make up his mind promptly and the Commissioner surrendered to his views, with the saving clause, grumblingly uttered, "that if there had been thousands of birds they never would have come near a blind made of seaweed and high as a hill." So the "white wings" were spread and the Au Revoir leaped away on her course toward the west.

NOMENCLATURE.

———"all our proudest lore,
Is but the alphabet of ignorance."

MUCH has been written about the confusion which exists in the local names of our game birds and animals, and all to little purpose. Notwithstanding the gallons of ink that have been spilled, and the quantities of pens that have been spoiled in urging a general reform in local nomenclature, no steps have been taken looking toward the adoption of the simple and characteristic English names which ought to come into use throughout the whole shooting community. A ruffed grouse is still a "pheasant" in the South and West, and a "partridge" in the North and East; and while the "gopher" of the South is a tortoise, the "gopher" of the trans-Missouri region is a little rodent nearly allied to the squirrel.

It is evident that we cannot hope in our day to have the language of science come into general use among sportsmen, and, on some accounts, it is not desirable, at present, that this change should take place; for, in many departments of biology, the scientific nomenclature is only provisional and is constantly changing, and a name employed to-day is obsolete to-morrow. These changes, of course, are to be kept up with only by the specialist. It is not possible that the general reader should follow them.

What we now need are simple English appellations for our game animals—names which shall recommend themselves to everyone, and shall thus force themselves into general favor at once. The shore gunners have such names for many of our game birds and ducks, and the humble bayman has in many cases been most happy in his namings, as there has always been some reason for homely appellations. He seizes some salient and characteristic point about an animal, and

names it from that peculiarity. If we are to instruct and raise a higher standard of sport—and this, as sporting writers, is an aim that we shall not lose sight of—we must dot down our experiences in a way that can be readily understood by all, and preach our sermons with “simplicity” for our text. Therefore, we shall begin by giving a list of the birds worth shooting commonly called “Bay Snipe” and, as far as possible, the names of each species used in the districts where they are shot. By this, the sportsmen of our coast, from New Hampshire to North Carolina, will be able to distinguish the same bird under its guise of many local *aliases*, and the list will act as a key for the subject on which we are about to write. The following is such a list of birds shot over decoys or stools, including the waders and plovers commonly called

BAY SNIPE.

Long-billed curlew (*Numenius longirostris*), sickle-bill; sabre-bill. Sickle-bill is the name almost universally used. It is simple and descriptive.

Hudsonian curlew (*Numenius hudsonicus*), Jack; short-billed curlew. The Long Island baymen term this bird the Jack, while to both the eastward and southward he is more often called the short-billed curlew.

Esquimaux curlew (*Numenius borealis*), fute; doe bird; little curlew. In the Eastern States it is called the doe bird; on Long Island the fute, and in parts of the South the little curlew. The origin of the first two names we have failed to ascertain; the third speaks for itself.

Black-bellied plover (*Squatarola helvetica*), black-breast; bull-head; beetle-head; ox-eye; bottle-head; pilot. On Long Island this bird is generally known as the black-breast, on account of the black markings of its plumage. The young in August are, however, gray on the belly and are often mistaken for a distinct species. In New Jersey and Pennsylvania it is called both bull-head and beetle-head, and also, in the latter, ox-eye. On the coast of Virginia, about Cobb's Island, the name of pilot has been given as it is always seen leading the large flights of birds which the rising tides drive from the shoals and oyster rocks, and it is supposed to direct the flocks “to pastures new.” This, however, is not the case. It is the fastest flying bird of all the bay snipe, and it cannot fly slow enough for the other species.

Golden plover (*Charadrius fulvus* var. *virginicus*), golden-back green-back; frost bird; whistling plover; bull-head. On Long

Island and to the eastward it used to be known as 'the frost bird, so called on account of its appearance at the time of the early frosts in autumn, but of late years it has generally been called the golden-back. On the New Jersey and Delaware coasts it is termed the green-back.

Great marbled godwit (*Limosa fedoa*), marlin; humility; brown-back; straight-billed curlew. Known along the seaboard, from Maine to Maryland, as the marlin, though occasionally called the humility or humilt, which name has also been given to the upland plover. On the coast of Maryland and Virginia it is known as the brown-back. In New Jersey it is sometimes called the straight-billed curlew.

Hudsonian godwit (*Limosa hudsonica*), ring-tailed marlin; white-tailed marlin; humility; Virginia woodcock. Generally known everywhere as the ring-tailed marlin, so called from the white band crossing the tail feathers. In parts of New Jersey known as the Virginia woodcock.

Semi-palmated snipe (*Totanus semipalmatus*), willet; marbled willet. Usually known as the willet on account of its cry.

Tell-tale tattler or snipe (*Totanus melanoleuca*); yelper; big yellow-legs; great yellow-shanks; tell-tale tattler; stone-snip; large cucu; willet. Familiar to all sportsmen as the big yellow-legs; in parts of New Jersey called the willet; on Long Island and the upper coast of New Jersey the yelper, on account of its piercing notes.

Yellow-shanks, tattler or snipe (*Totanus flavipes*); yellow-legs; little yellow-legs; lesser tell-tale. Known everywhere as the yellow-legs.

Red-breasted snipe (*Macrorhamphus griseus*); dowitch; dowitcher quail-snip; brown-back; gray snipe; driver. On Long Island and the northern coast of New Jersey called the dowitch; South New Jersey, Delaware, Maryland, Virginia and North Carolina the brown-back.

Turnstone (*Streptilas interpres*); calico-back; brant bird; chickling; chicalic; sand runner; horse-foot snipe; beach bird. In Virginia, Maryland, Delaware, Southern New Jersey, the calico-back, on account of its reddish-brown, mottled-colored back; Northern New Jersey the horse-foot; Long Island and to the eastward the brant bird; the young on the New Jersey coast are called beach birds.

Red-breasted sandpiper (*Tringa canutus*); robin snipe; knot; ash-colored sandpiper; gray-back; white robin snipe. Generally known everywhere on Long Island and New Jersey as the robin snipe, so-called in the spring as its brown plumage resembles the red-breasted thrush or robin. In September in the South it is called both gray-back and white robin snipe.

Pectoral sandpiper (*Tringa maculata*); kriecker; meadow snipe;

fat bird; short-neck; jack snipe; marsh plover; grass snipe; robin snipe; red back. On account of its creaking, shrill cry it is called the kriecker on the Northern New Jersey coast, but further south it changes its name to short-neck and fat bird. On the inland meadows of New Jersey it is known as the robin snipe and meadow snipe. On Long Island it assumes several of the above names. It is said to never stool, but we have seen it do so occasionally.

Red-backed sandpiper (*Tringa alpina* var. *Americana*); black-breast; black-breasted plover; winter snipe; red-back. Known on the coast from Maine to Florida, its most common name being the black-breast.

Long-legged sandpiper (*Micropalama himantopus*); stilt; bastard dowitch; bastard yellow-leg; wood snipe; blind snipe; frost snipe; peep; drum stick. On Long Island it is called the bastard dowitch, and on the Jersey coast the blind snipe.

The above list comprises the different varieties of bay snipe that are worthy of the sportsman's aim. In addition to these there are the small plovers, called ring-necks, beach-snipe and surf-snipe, and the tiny sand pipers, such as the ox-eyes, sand-snipe, shore birds and peeps, excellent when roasted, but only fit for little beginners to pop away at.

LOCALITIES.

"Seek'st thou the plashy brink
Of weedy lake, or marge of river wide,
Or where the rocking billows rise and sink
On the chafed ocean side?"

WHO can tell of the habits of our wild fowl and aquatic birds as well as the men who, day in and day out, in cold and heat, and in all kinds of weather, follow shooting for a livelihood? Unfortunately for the public, these men cannot, for the most part, spare the time to dot down their experience. Indeed, but few of them can write, and what, if recorded, would be of real value to the shooting world is lost. The educated sportsman is rarely of assistance in this matter, for he, as a general thing, leaves everything to his baymen, and with a profound ignorance as to the habits of the birds, learns little and remembers but little after a week's shooting, save the number and quality of the fowl brought to bag during his holiday. If he has had good shooting, he is generally liberal to the caterer to his sport; but for the life of him he cannot tell why the stools were set to windward, or why he had better or worse shooting than the guns in the other "rigs." Our experience has taught us that too often the purely scientific man knows even less, and that many works on ornithology abound in absurd inaccuracies, which lead to "confusion worse confounded." True, the scientists tell us the measurements and weight, and the coloring and shading of each bird, but often these descriptions are of the faded plumage of the dead specimen, and not of the live fowl. When colored plates are introduced into their works, they are often so unlike the bird they are intended to represent, that if it were not for the name underneath it would be impossible to identify them. In fact, we have seen several which resemble Egyptian hieroglyphics more than birds that have been seen to fly. It is from works

of this kind that almost all our sporting book writers draw for their material, and not from real experience; hence errors and traditions are handed down to us, and continued ignorance is the result.

From the Bay of Fundy in the North, to the Florida Reefs in the South, there are miles of the Atlantic coast shielded by long sand bars and shoals, which, at every ebbing tide, abound with every variety of aquatic food. At one time or another throughout the year each locality is visited for a short or long period by the bay snipe. Leaving the South early in the spring, they seem drawn by some magnetic influence toward the North, passing this vicinity in May, the date being regulated according to an early or late season. Once in their home in the far North, they speedily set about nesting and the rearing of their young. This is soon accomplished, and then their return flight begins, the old birds preceding, followed by the young several weeks later. But it is a mistaken idea to suppose that all the varieties of bay snipe seek the North to pursue their matrimonial inclinations. Several kinds, and especially the willet and some of the plover, breed to the south of New York. It is during the summer flight that the bay snipe run the gauntlet of the thousand stands that dot the coast from Maine to Eastern Virginia. We shall not attempt to specify each locality, particularly those that are remote, but simply mention the places that are easy of access and well known to the sportsmen of this vicinity.

Beginning at the north, we follow to the south the line of coast of those States on the Atlantic seaboard, mentioning the names of the counties of each in their geographical order, and the places where more or less shooting can be had at this season. Of course, the shooting begins first at the North, but the rapidity with which the birds make their flight causes the first guns to be echoed along the coast, even to the far South, in quick succession.

LIST OF PLACES WHERE BAY SNIPE ARE SHOT.

MAINE—*Washington County*.—The Island of Grand Menan. The island and bars along the entire coast of Han-

cock, Waldo, Knox, Lincoln, Sagadahock, Cumberland and York counties.

NEW HAMPSHIRE—*Rockingham County*.—Rye Beach and Hampton.

MASSACHUSETTS—*Essex County*.—Plum Island, Ipswich, Cape Ann, Gloucester, Beverly, Marblehead, Salem and Lynn. *Norfolk County*.—Randolph and Cohasset. *Plymouth County*.—Marshfield, Duxbury, Clark's Island, Plymouth and Manomet Point. *Barnstable County*.—Sandwich, Chatham, Queshnet, Wood's Hole, and at almost all the towns along the coast, on Cape Cod and Buzzard's bays, and the ocean side. *Bristol County*.—South Dartmouth and Quansett.

RHODE ISLAND—*Newport County*.—At all the islands. *Washington County*.—Point Judith, Block Island, Bristol, Peacedale and Watch Hill.

LONG ISLAND—*Suffolk County*.—Fisher's Island, Plum Island, Ram Island Shoals, Orient Point, Montauk Point, Bridgehampton, Southampton, Shinnecock Bay, Moriches and Great South Bay, and, indeed, all along the south shore.

STATEN ISLAND—*Richmond County*.—Great Salt Kills.

NEW JERSEY—*Monmouth County*.—Manisquan Inlet. *Ocean County*.—Squan Beach, Barnegat Bay and Long Beach. *Burlington County*.—Tuckerton. *Atlantic County*.—Brigantine Beach, Absecom and Somer's Point. *Cape May County*.—Peck's Beach, Townsend Inlet and Leaming Beach.

DELAWARE—*Sussex County*.—Lewes, Rehoboth Bay, Indian River and Long Neck.

MARYLAND—*Worcester County*.—Hammock Point, Berlin and Sinepuxet Beach.

VIRGINIA—*Accomac County*.—Chincoteague Island, Wallop's Beach, Gargathy Inlet, Assawman Island, Matomkin, Cedar Island, Burton's Bay, Trout Channel, Little Matchipongo Inlet, Revel's Island and Matulikin. *Northampton County*.—Hog Island, Sand Shoal, Great Matchipongo Inlet, Cobb's Island and Smith's Island.

BLINDS AND DECOYS.

IT depends very much upon the character of the place where you go, and the variety of birds which you intend to shoot, what kind of a blind or bough-house to build for your concealment. If on the edge of some large bay or broadwater, for general shooting a stand may be erected that will screen you while seated on a comfortable bench. But if you select some bar or beach where the birds come to feed at low water, or along which the willet fly, a box sunk in the sand is the most killing device. The box should be long enough to allow the gunner to lie in it comfortably, and its width should be several inches in excess of the breadth of his shoulders. From ten to fifteen inches will be of sufficient depth. It should be made of three-fourth inch stuff, caulked and pitched on the outside and in, thus making it thoroughly water-tight. At one end, near the top, an iron staple should be clinched, to which a half-inch rope of about seven feet in length should be fastened. This will be found useful in towing the box behind a skiff, or for dragging it over the sand. A useful article will be found in an old spade. Should you find that large birds, such as curlew, marlin and willet, have a roosting-place on one of the bald marshes, the box described above should be used, or if thoroughfares dissect the marsh, you can paddle your skiff, which should be painted green, up one of the drains toward the spot where the birds lower their flight, or circle over before alighting, and conceal it in the highest tuft of grass. Curlew, and especially the "jack," do not stool well where a blind has been erected. They are wary at best and wild when their favorite haunts have an unnatural look. Not so, however, with many of the other varieties. Willet almost invariably stool well, and both the marlins are unsuspecting. The large and small yellowlegs, dowitches, robin snipe and

lesser birds are readily called within reach, providing, of course, that the proper place has been selected. The bars and shoals are the favorite haunts of the black-breast plover, the willet and dowitches, while the meadow pond holes are the sure places to attract the yellowlegs, especially when the birds are traveling with the wind, or as baymen call it, a "free wind."

Blinds are easily constructed out of cedar boughs cut about four feet in length, stuck in the sand or mud. They can also be made, when the wind is not blowing too hard, out of long reeds cut on the marsh. We have seen painted canvas screens, hinged so as to fold up, used, and one of Long Island's famous gunners, once used an umbrella painted green, which served not only to hide his huge proportions, but kept off the fiery heat of the sun. The fact is, as we have said above, it depends very much upon the place, and, moreover, on the conditions of wind and weather where to stool. While a vast number of birds in their autumnal flight follow the irregularities of the coast, there are countless numbers who make their migration far to sea, or take short cuts over the mainland. Those passing to sea only touch at the projecting points, and are consequently tame, while those which have run the gauntlet of an even shore or beach are wild, and less likely to stool. All these things must be taken into account, and the wilder the birds the better you must be hid. Sometimes it is impossible or inconvenient to construct a box such as described, or find suitable stuff to build a blind; then a rubber blanket can be spread on the marsh, and a few sedge bushes or heaps of sea-weed placed around you.

The most favorable wind for bay snipe shooting in the summer and autumn is one that blows steadily from the southwest. The birds which are coming from the North, and flying against it, lower their flight and skirt the bars and meadows, and see the stools more plainly and decoy much better than when traveling with the wind in the clouds. A wet summer is also found to produce the best shooting, as the meadows afford plenty of feed, and should the birds arrive

early in the season, they stop and make the large marshes their home, flying north in the morning and returning south toward evening. The birds are then said by bay men to have established "a trade."

One great advantage in shooting in bays and broad-waters, where the tide rises and falls but a few feet or inches, is that the blind can be occupied by the gunner throughout the day, without the annoyance of being driven out at high water. Meadow ponds on this account are often selected, for although they do not afford the best shooting during the morning and evening flights, yet admit of a stationary blind being built from which more or less birds can be shot during the day, particularly when driven from the shoals at high water.

The decoys, or "stools," as they are called, are always to be set to the windward of the blind and, though twenty or thirty are generally used, we prefer to set out about fifty, as the greater the number the better the show to attract the flocks. The stools should be set in a crescent-shaped circle, with the heads of the decoys pointing to the wind. There are two reasons for arranging them in this way: First, all wild fowl light to the wind, as they need the resistance of the air; second, a flock of birds that intend to stool, drop down to leeward, where they circle and then draw in over the decoys. It is, therefore, not advisable, as a rule, to shoot at a flock passing over your head, as it will turn, and should it light it will do so at the head of the line of stools. It will thus be seen that as the birds check their flight to alight they crowd and jostle together, affording the most killing results of a well-directed volley into their ranks. There are various kinds of stools manufactured, such as both solid and sectional wooden ones, hollowed out; flat tin stools, cut out of sheet tin, and several years ago a patented tin stool was introduced on the market, that met with favor in the eyes of those sportsmen who cared little for expense. The latter are of very ingenious make, each half of the decoy being concave on the inside and convex on the out, thus representing one-half of a bird; the two parts are

hinged together on the back, so that when shut they resemble a well formed snipe, and when opened can be packed one in another, after the manner of a nest of boxes, and occupy but little space. All these decoys are painted to resemble the different varieties of snipe, and are stuck up by means of sticks. Each set of stools should have sticks, or "legs," of two lengths—short ones when used on dry bars or very shoal water, and long ones when the water is deep. It should be borne in mind that stools set in the water are more readily seen, as their reflection and a watery background make them loom up and show to advantage. For wet stooling, the wooden ones are preferable, as the tin ones soon rust and become worthless. The objection, however, to the wooden stools is their weight and bulk. For plover shooting on the upland or dry ground, the tin ones are by far the best. It may here be said that shells, lumps of mud, etc., placed on sticks, often can be used when it is impossible to obtain the regular decoys.

It sometimes occurs, when snipe are making their flight late in the afternoon, that they are not inclined to stool well. They travel high, and often the decoys are so situated that the flocks run on to them without distinguishing them. In cases like these, a few scattering stools set away to the windward in the line of flight, even if they are stuck up in deep water, will draw the birds down in passing, and then, by judicious calling, the flocks can be worked up within shot.

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