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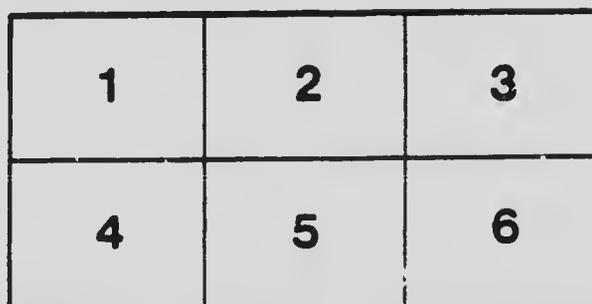
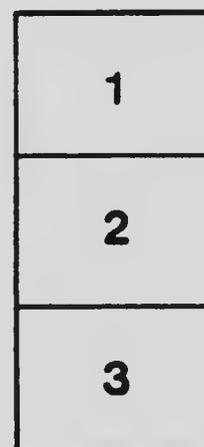
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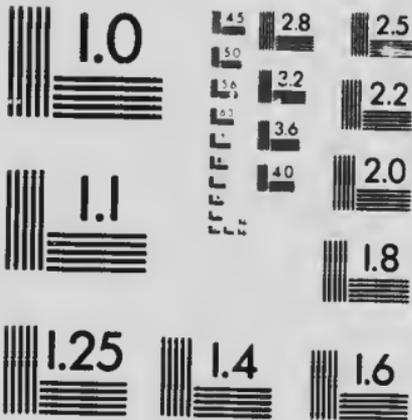
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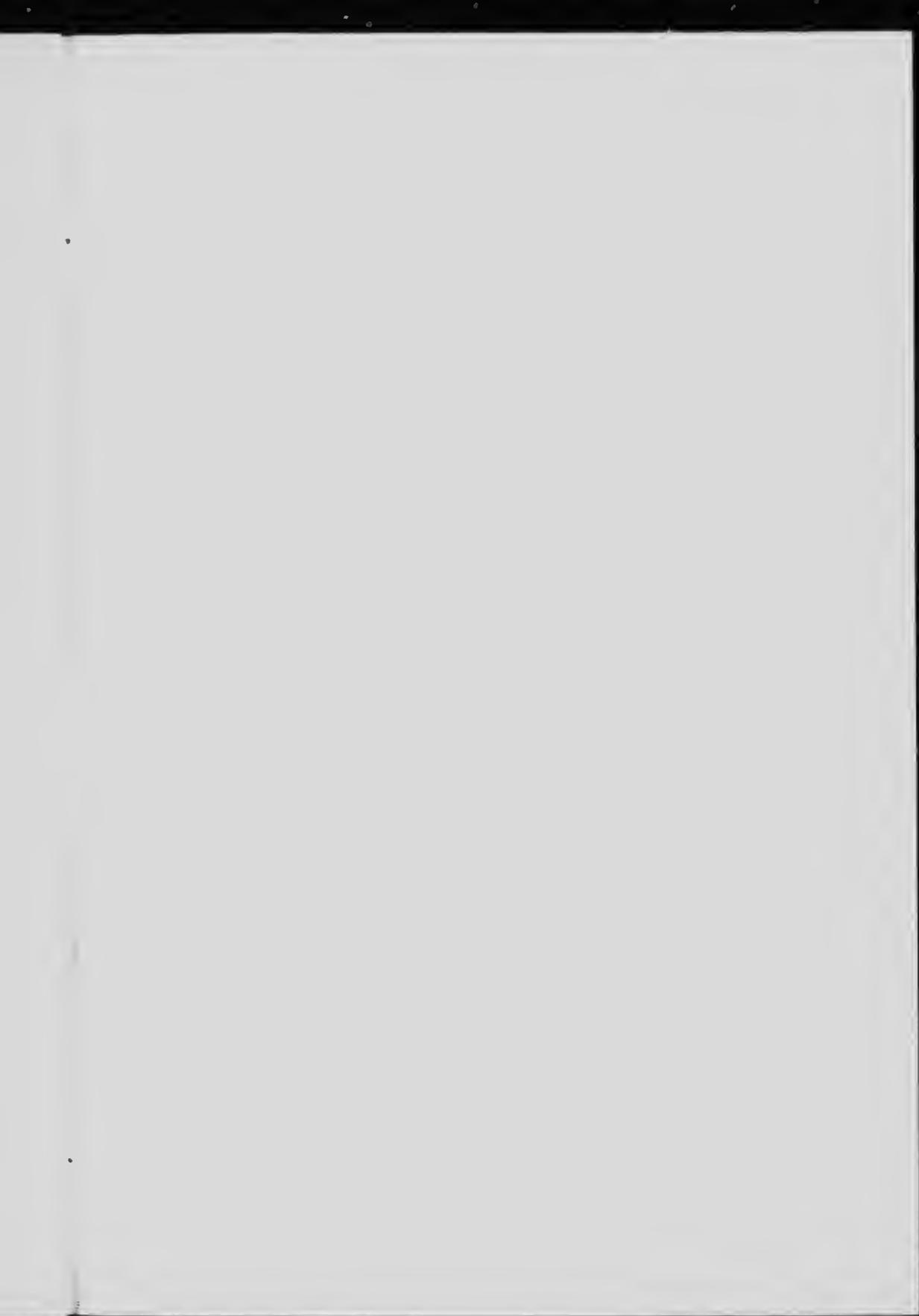
# BIRD-HOUSES AND THEIR OCCUPANTS

By P. A. TAVERNER

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A SUCCESSFUL MARTIN COLONY

# THE OTTAWA NATURALIST

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## BIRD-HOUSES AND THEIR OCCUPANTS.\*

By P. A. TAVERNER.

Like *Dædmona*, we "have a divided duty". On the one hand to cultivate the land cleanly, and on the other, to attract birds to it. These are opposed duties. If we cut the dead wood from our wood lots, parks, and groves; clean out, sterilize, and fill rotting spots in limb and trunk with concrete, we deprive many birds of nesting facilities. If we clear out tangled brush, cultivate to the fence lines, open the ground about young, second-growth plantations, and drain the last marshy spots, we deprive many of necessary cover and the food that goes with it. Insect, weed, and small mammal pests may be reduced; but so, inevitably, will the birds as well. The consequence is likely to be that, whilst our control of pests on the whole will be better, we shall be subject to occasional sporadic outbursts of species that are not subject to these particular methods of control. Whilst the study of their food habits may suggest that birds do not usually partake largely of those insects (for example, the potato bug) whose numbers commonly assume plague proportions, it is also evident that insects that birds systematically feed upon, rarely become plagues. We know, to our sorrow, the few instances where our control is inadequate, but we have no means of knowing the innumerable cases where it has warded off disaster.

The real value of birds as guardians of our fields and gardens is not in the individual species but in the aggregate, each filling its own narrow field, yet all combined, covering every weak point. The swallows hawk through the upper air; the vireos, orioles, and tanagers haunt the tree tops; the woodpeckers and chickadees, the limbs and bark crevices; whilst thrushes examine the debris of wooded grounds and the sparrows and meadow larks scour open fields and shrubby tangles. In fact at no period of their life cycles are insects free from avian attack—flying, creeping, hiding or buried in the ground or in solid wood—there are species of birds fitted for and eager to attack them. Should any one class of these, our unpaid assistants, be

prevented from functioning, an opening is left in our defence that may be an Achilles' heel to our undoing. If we turn our woods into groves, meadows into lawns, and tangles into formal shrubbery something of this sort is possible, unless compensations are provided. In the home grounds and city streets and parks the ideal of clean cultivation is most nearly approached and here it is the more necessary to provide artificially the necessities of bird life that are missing.

Bird boxes will largely compensate for natural cavities in trees and carefully selected plantings of shrubbery and decorative flowers in naturalistic design will supply cover and fruit and seed food. If we fortunately succeed in reducing insects to a point dangerous to bird welfare the deficiency can be supplied by scraps of animal matter presented at feeding stations, on shelves, or in shelters. In these ways only can we partially compensate for our interference with the natural scheme and retain wild birds under conditions of high cultivation. Incidentally, as the home lot is the first to be made attractive to birds, we draw their interesting personalities close about us, and in place of having to tramp miles to their secluded haunts, decoy them to our very windows where they can be enjoyed practically continuously instead of occasionally, intimately instead of distantly, and at ease instead of by exertion. Any one of the methods above suggested requires, for intelligent development, a paper to itself; and the first, only, the building of bird houses and boxes, will be here discussed.

The first thing to consider in building a bird box is the species for which it is designed. Each has its own requirements and though its necessities are more or less elastic the more nearly we fulfil the bird's ideal the more successful we shall be in getting it to use what we provide. In short we must cater to the customs and idiosyncrasies of our tenants and not to our own ideas of convenience and beauty. It

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is only after the former have been fully met that we can indulge the latter. This does not necessarily mean that taste and ingenuity in the designer is an objection, but only that the fundamental rules of art govern bird house building as well as more serious architecture—that the structure must first be adapted to its intended use and that beauty that interferes with this use is false art and bad architecture. A slunged cottage built to look like a mediæval castle is bad taste, and a bird house in too close imitation of a city hall, viewed by the canons of pure art, is equally questionable. Artistically, the most successful bird house is the one, which, while fulfilling the practical bird requirements, retains pleasing lines and agreeable surfaces but looks frankly what it is—a house for birds and not a toy human habitation.

#### THE PURPLE MARTIN.

Probably the bird most generally welcomed about the home is the Purple Martin. This is our largest swallow, comparable in size to the omnipresent, English, or, as it is more correctly named, House Sparrow. In colour, the adult male is all black with steely and purple reflections that give the species its name. The female and young male are almost black above with slight indications of iridescence, dull or dirty grey below, almost white on the abdomen, and darkest across the breast. The forehead is greyish, leaving a contrasted dark bar from the bill through the eye, bounded below by the lighter throat.

Esthetically, the Martin is a joy forever. Its deep throat gurgles and soft warblings fall pleasantly upon the ear. Unlike those pests the Grackles its voice is never raucous or harsh, nor has it the egg-stealing proclivities of those clownish rascals. Misguided people will occasionally be found who object to having their morning's rest broken even by Martins. Doubtless such folk would object to being awakened by a symphony orchestra. They should be pitied rather than blamed; but, in either event, disregarded. To my mind the soft morning chorus of the Martins is soothing and does not disturb rest; but is conducive to a luxurious semi-consciousness or borderland to sleep that permits the enjoyment of slumber without awakening.

Martins are companionable. They live together in colonies, visit each other's house-keeping establishments, and chatter together continually. The new comer is greeted pleasantly and the departing guest sent on his way with good wishes and merry quips. Visitors from other colonies are received and permitted to peer in and examine the growing families with the expressed satisfaction and approval of all concerned. The greatest good nature prevails.

Though passing differences of opinion may occasionally occur and he argued loudly and vigorously, they are rare and do not interfere with the general harmony of the colony. It is only when strangers of other species intrude that all unite to eject them. The House Sparrow is on its best behaviour on the premises and even the family cat walks with circumspection, retreating hastily if not gracefully to the nearest cover at the first assault of the angry birds. In fact such open rough and tumble warfare and tumult is not to the cat's liking and it usually prefers a considerable detour to crossing the open under a thriving Martin colony.

Martins have a strong love of home, and certainly develop a sense of proprietorship, almost human, in the house they are accustomed to occupy. The occupation of a new house already in the possession of Sparrows or other birds, is seldom insisted upon, but on return in the spring to an ancestral home, intruders are positively and rudely ejected. Sparrows, being already on the ground and choosing the most desirable locations before most migrants arrive, often succeed in fighting off other more desirable tenants or even jumping the claims after they have been established by legal possession and labour, but the Purple Martins are a match for sparrows nearly every time, though, like law-abiding citizens, they rarely lay claim to more than they have legal title to. Another point of interest in regard to Martins and their attachment to their home, is the fact that they return to it after its use as a nursery is past. Other birds, probably all other Canadian birds, evince no interest in a nest after the young have left it, at least until a new nesting season recalls it to use. With them the nest is not a home or a shelter, but merely a receptacle for holding eggs and young, useless and without interest when that use is accomplished. Martins, however, retain possession until they gather for the fall migration, and the old homestead remains the family meeting place until the time of departure comes. After the middle of August, though through the day the Martin house may stand empty and silent, towards evening the whole joyous colony regather about the home of their late infancy and family associations. They clatter, gurgle, and exchange family jokes and affectionate greetings until, as the sun goes down, they crowd into the cubbyholes and the wonder is where so many fully grown birds find room. Their voices grow softer and night and silence steals over all. As daylight comes, awakening chirps are heard, heads appear at the doors, birds emerge, and from the topmost points of the house they roll a vocal welcome to the day. Soon all are displaying themselves to the morning sun, preening and fluffing to let the grateful warmth sink

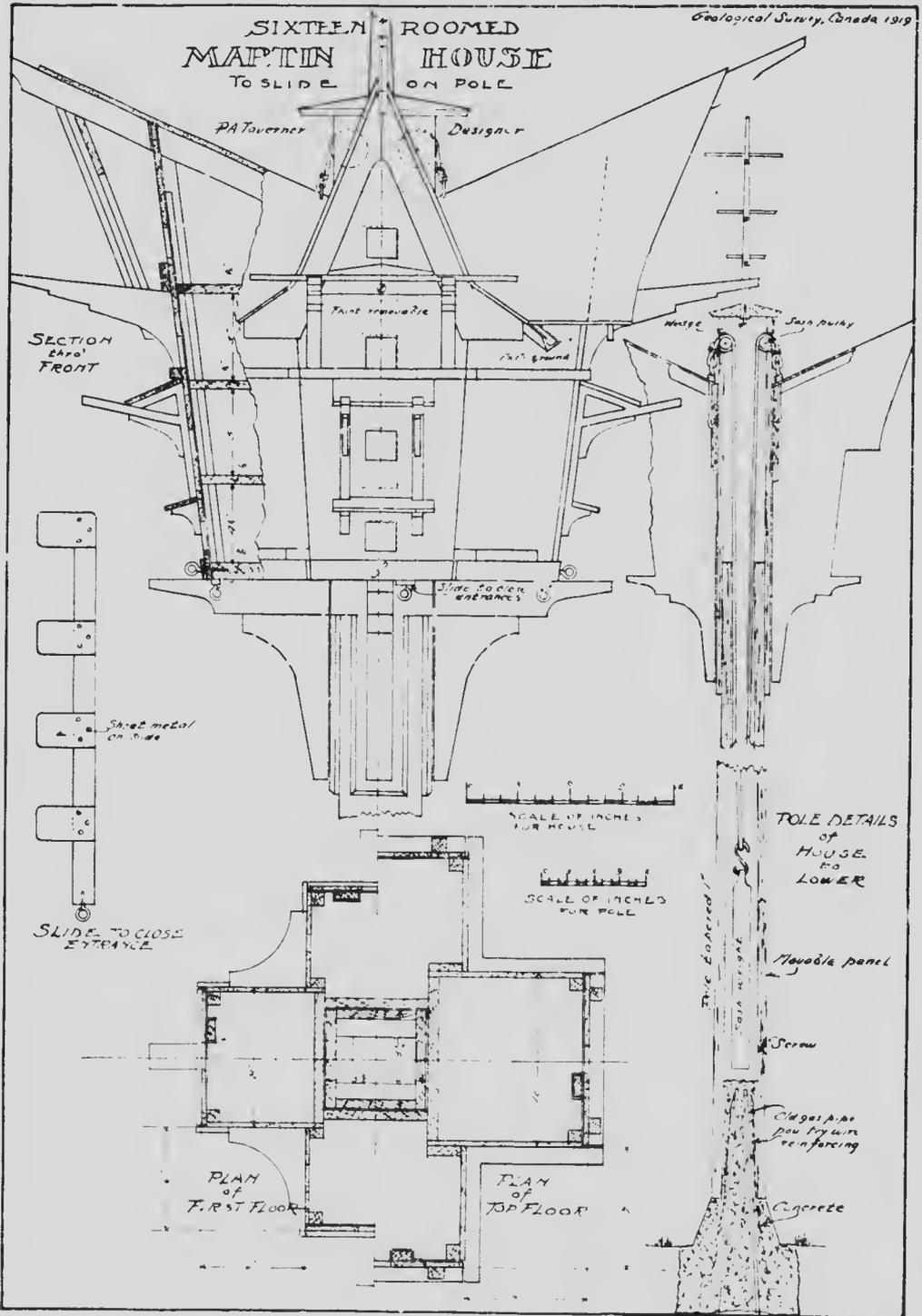
into the base of their plumage. As the sun gets higher they make short flights here and there, amidst a chorus of happy bubbling song. By the time the office man is betaking himself to his daily grind, the Martins bethink themselves of their serious duties of life, and hie away for the day, over marshland and meadow, field and stream, housetops or country, until evening again calls them together. Such are some of the attractions of Purple Martins and the tale is not nearly exhausted.

Purple Martins are the only birds we have that will occupy a nesting box in colony. Other birds that can be induced to come to artificial nest receptacles are solitary in their breeding habits and impatient of close neighbours even when of their own species. Hence it is useless to build bird houses of more than one compartment for other species than Martins. The rooms should be about six inches square and about the same height. A little more or less either way will not matter, but these sizes should be approximated. The rooms should be entirely separate from each other and not intercommunicating. They should be light, be draught and weather-tight and have only a single entrance each, which may be either round or square, one and three-quarters of an inch and about one or one and a half inches up from the floor. This last is important. A perch or shelf, outside, on the level with the entrance, is objectionable as the young come out on it before they can fly, and the natural crowding for position is certain to precipitate some to the ground. Such occurrences cause great disturbance and anxiety to the whole colony, but I do not think that the unfortunate victim, of the accident is ever fed or raised, even if the commotion does not attract the watchful cat. A perch somewhat below the door, wide enough to comfortably hold one or more grown birds, is desirable, as Martins love to sit about, and the more perches and shelves there are for this purpose, the better they seem to like it and the more attractive the colony is both from their viewpoint and ours. The doors should be sheltered as much as possible by over-hanging eaves and porches. Driving rain beating into the nests of young birds is a deadly enemy and, probably on this account, the best sheltered entrances are most in demand. In the house in the frontispiece the two upper floors are always most in demand. Consequently, since the picture was taken, additional porch shelters have been placed over the lower entrances and it is expected that these will make them more popular. The whole house should be covered with a good, tight, weather-proof roof. Dampness means cold and that is death to young birds. It is also most advisable to arrange the house to open so that after the birds have left for the winter the rooms can be thoroughly

cleaned out. During the infancy of the young, a certain amount of house cleaning is attended to, but later the birds have no time for such drudgery, and the debris from a couple of seasons' occupancy will leave little room within. The house should be erected in the open, away from trees, or at least as high as the top of closely adjoining buildings. Ordinarily it should be from fourteen to twenty feet from the ground, depending on surroundings, high enough to allow free flight and manœuvring room about it.

The materials of which the Martin or any other bird house can be made may be varied to suit taste or opportunity. Lightness, however, is desirable, especially in a large house or in one that has to be supported on a long unbraced pole, in the open, in wind and storm. Light pine,  $\frac{1}{8}$  or  $\frac{1}{2}$  inch thick is usually sufficient. For paint, it should preferably be dressed, but rough stuff takes stain better and is more in general keeping. The house in the frontispiece was built of beaver-board a heavy card-board on a wooden frame and the roof and exposed surfaces covered with cotton well painted down. It has been up two seasons now and shows no signs of deterioration that a brush-full of paint will not remedy. Probably a better material is the light wood of which orange crates are made. It would probably be well to give the house a good coat of black paint inside to prevent the light from glowing through it. The support is a built-up box pole hollow in the centre and set on a concrete base, as shown in the details accompanying. The house itself slides up and down the pole on counter weighted cords running over common sash pulleys in the top of the pole, with a heavy window weight inside. A bag of sand would do as well for the latter. This allows the house to be easily lowered to remove trapped sparrows or to be cleaned. Access is gained to the weight box inside through a removable section near the base.

These are about all the rules necessary for the erection of a successful Martin house. It may have as many rooms as desired, the more the merrier, and the larger the colony may grow, but there should at least be several; for Martins are sociable and love the company of their kind. Bearing in mind these requirements and the principles of good taste previously mentioned, there are no reasons why a Martin house that will be a constant source of pleasure to the neighbourhood may not be built by almost anyone. After such a house is once erected, about all that can be done is to await its occupation and meanwhile keep the sparrows out. They will invariably occupy it if not prevented. One good way to exclude them is to arrange entrances that can be easily closed from below. Shou'd sparrows



then get in the door can be closed and the entrapped occupants destroyed. It is said that sparrows so caught can be released again after a period of confinement and that the house is a trap to them thereafter, and their fear of it will be communicated to their companions. Though this may be true, for it is not out of keeping with the intelligence of our rowdy sparrows, who at times show an almost uncanny ability to take care of themselves, I will not personally vouch for it. A dead sparrow makes no nests, of that I am assured and I proceed accordingly. Where it can be used, a .22 rifle with shot cartridges is the most satisfactory sparrow eradicator. Its range is short and its fire shot harmless at very limited distances. In the hands of a man of ordinary intelligence it is to be highly recommended. Sparrows, however, soon grow very wary, precipitately retreating at sight of a man with a gun in the distance, only to return to hurl derision, from the bird house peak or entrance, at their baffled enemy. In such a case a set gun discharged from ambush is very effective. A couple of stakes driven into the ground within range of the perch usually occupied, nails for barrel and trigger-guard from which to hang the gun aimed at the spot, and a long string to the trigger passing through screweyes to an ambush, form an engine of destruction that will effectively discourage the wariest and most persistent of sparrows. It is of proved effectiveness against that last pair that continue to baffle more open methods.

If fortune smiles Martins may come the first spring, but if she is fickle it may not be until the second or even the third season. It was the third season before the writer got Martins in his house and then only a single pair came. What appeared to be a lonely female arrived first. The place seemed to appeal to her and she tried to induce friends to come with her. She would sit on the gable end and call vainly to them. Then, somehow, she succeeded in bringing a committee of investigation back with her. They swarmed all over the house, into all rooms, talking and criticizing and making comparisons. I gathered that one did not like the plumbing, some objected to the decorations, and others to the view, in fact none seemed satisfied enough to move in and after emphatic expressions of opinion all left; the single would-be tenant loudly protesting and vociferously calling them back. When she saw that they were actually deserting her off she flew after them and eventually brought them back for a fruitless reconsideration. Later she was joined by a mate a juvenile or last year's male similar to herself in plumage and they settled down to home-making by themselves. Through the brooding season friends from other colonies came and visited and it

was no uncommon sight to see ten or a dozen Martins taking an active and personal interest in the growing family, and when the young came out sometimes as many as twenty birds circled about the house. The next spring five or six pairs were in possession and the colony's welfare was established and has increased until, last summer, about twelve compartments were occupied.

As a rule, except where neighbouring colonies are broken up and made homeless, newly erected houses are filled by the overflow from neighbouring ones. Martins are conservative and probably as long as they can find satisfactory quarters in their ancestral mansion are loath to move to strange surroundings. The beginning of new colonies, therefore, depends upon the number of house-hunting birds in the neighbourhood.

SINGLE ROOM HOUSES.

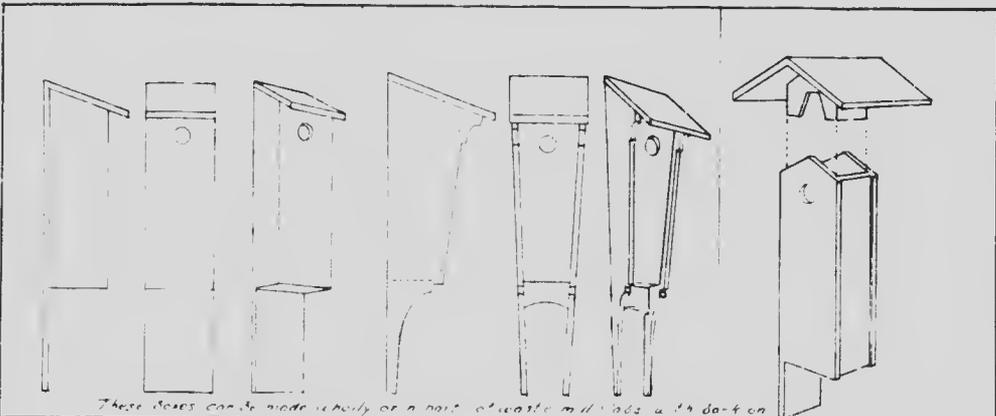
In the following table the birds that can usually be induced to occupy nesting boxes are listed and a schedule is given of their specific requirements. Various ideas as to the forms that may be adopted to fulfil these requirements can be obtained from the accompanying plates.

	Floor size inches	Depth inside inches	Entrance front door inches	Diameter of entrance inches	House from ground feet	
Purple Martin ..	6x6	6	1-1½	2¼	14-20	
House Wren ...	4x4	6-8	1-6	¾	6-10	
Tree Swallow ...	5x5	6	1-6	1½	10-15	
Blue Bird .....	5x5	8	6	1½	5-10	
Crested Flycatcher	6x6	8	10	6	2	8-20
Chickadee .....	4x4	8	10	8	1¼	6-15
Flicker .....	7x7	16	18	16	2½	6-20
Screech Owl....	8x8	12	15	12	3	10-30
Sparrow Hawk..	8x8	12	15	12	3	10-30

HOUSE WREN.

The bird most easily attracted to a bird house is the House Wren. Its tastes are so catholic as to raise the suspicion that it has no taste at all, or that it is so busy with other people's business that it is unmindful of its own. Anything that has an entrance and is hollow, that it considers safe from cats, and that can be filled with sticks, is taken on occasion - an old boot nailed up, a tin can, or even the pocket in an old coat have been repeatedly used. It is the only bird house that can be easily guarded from sparrows, for a small entrance ¾-inch in diameter will serve the wren and keep pests out.

The House Wren is a busy mite and the wonder is that so small a body can contain such an amount of nervous energy. It may contain but it cannot hold it long, for every few moments it seems to

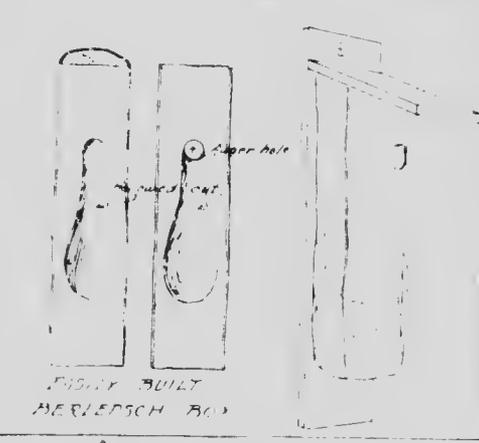


These boxes can be made wholly or in part of waste mill-lags with a dash on

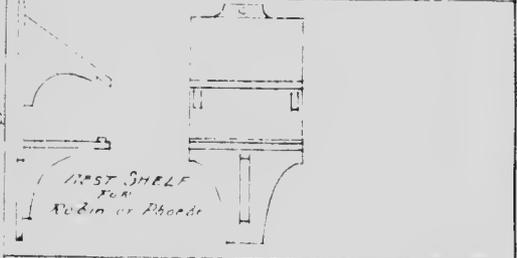


Removable Perches

House in various sizes  
ENTRANCES FOR  
DIFFERENT SPECIES



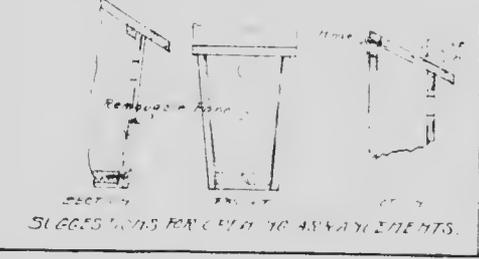
RIDLEY BUILT  
HEBLERSCH BOX



FIRST SHELF  
FOR  
Robin or Phoebe



BOX MADE OF MILL LAGS  
SUITABLE FOR ALL BIRDS



SLUGS HOLES FOR CHIMNEY ARRANGEMENTS.

By following this table of sizes, the above boxes will suit any of the following birds

	Length	Width	Height	Entrance Hole	Perch
Blue Jay	10 x 8	6	12	4 1/2	1 1/2 - 2 1/2
Blue Bird	8 x 6	4	10	3 1/2	1 1/2 - 2 1/2
Chimney Swift	4 x 4	4	6	1 1/2	None
Crow	12 x 10	8	14	5 1/2	2 1/2 - 3 1/2
Goldfinch	8 x 6	4	10	3 1/2	1 1/2 - 2 1/2
Grackle	10 x 8	6	12	4 1/2	1 1/2 - 2 1/2
Robin	10 x 8	6	12	4 1/2	1 1/2 - 2 1/2
Sparrow Hawk	10 x 8	6	12	4 1/2	1 1/2 - 2 1/2

beil over with bubbling song with notes falling over each other in an attempt to get all out at once. It is a prying little busybody and not a nook or corner escapes its small inquisitive eyes and very little in the insect line its sharp, delicately tapered bill. Through the currant bushes it climbs and peers under every leaf, along every twig, then into the raspberry patch, down through the trellis and into the dark recesses of the phlox and larkspurs. The fence next receives its attention and every crack and joint is examined. Perpendiculars and horizontals, right side up and upside down are all one to it, gathering a worm here, a caterpillar there and spiders everywhere; and as it goes it scatters its bubbling song all over the garden. A flutter-budget and a Paul Pry, a busybody and a scold, but withal an important ally of the gardener.

I wish this were all I could say of it, but candor makes me issue a note of warning. If there are other small birds nesting near-by, watch the Wren closely. It is also a serious mischief-maker. This may be a trait of individuals, as there are rascals in all stations and walks of life. I hope it is, for Wrens have been known on more than one occasion to steal into the nests of other birds and puncture the eggs there. They do not eat the eggs, but seem to destroy them out of pure gnomish maliciousness. One is in a quandary whether to admire the little indefatigable caterpillar destroyer and merry songster or to wage war on it as a wanton destroyer and an enemy to husbandry.

#### TREE SWALLOW.

The Tree Swallow is dressed in a panoply of gleaming steel and white. All above is iridescent black with snowy white below. The female is similar, but with colours less pure and gleaming. Normally the Tree Swallow nests in old woodpecker-holes, in dead trees, preferably overhanging water, but always in the open. Its sweet little "*chink a chink*", like water dripping into a quiet pool, is a pleasant sound and the gleam of its wings in the bright sun adds a most attractive presence to the garden. It has no bad faults that I have discovered and the number of insects it takes is considerable. The house should be on a pole in the open and from ten to fifteen feet up, though greater heights are not necessarily objected to and the box can often be set up from the house top if no more intimate situation is available.

#### BLUEBIRD.

John Burroughs has described the Bluebird (the eastern species) as "The sky above and the earth beneath", and the description fits it perfectly. All above is iridescent cerulean blue and the throat, breast and most below dull earthy red—"the good red earth". It is another bird above reproach and the

brilliant coat of the male, its mate's more subdued colours, its pensive notes, "*purity, purity*," and its modest liquid warble are additions to any landscape. Its nest requirements are quite similar to those of the Tree Swallow, except that it does not nest as high, often occupying holes in old fence posts not five feet from the ground and it is not specially partial to the vicinity of water. I advise every one to get a Bluebird to nest in the garden whenever possible. I have not succeeded in doing this yet, but in the less urban situations it should not be a difficult species to entice.

#### CRESTED FLYCATCHER.

About the size of a sparrow but with a longer tail. Wood browns above with a slightly reddish tail, grey throat and breast, and pale lemon yellow below; sexes alike, combined with a number of peculiar but not inharmonious whistles, these are the characteristics of the Crested Flycatcher. It is not very often that it comes to nesting 'oxes, but the unexpected sometimes happens and the writer has had this bird in his garden for two years not consecutively. The first year of the Martin colony, when it consisted of only a single pair, Crested Flycatchers occupied the wing of the house opposite the Martins. Battles royal occurred constantly, but one was as stubborn as the other and both remained. With a larger colony of Martins the Flycatchers would have stood little chance. The Flycatcher's box should be ten to twenty feet up and if it is partly sheltered by trees as on the edge of a grove it will more closely approximate the natural habitat.

#### FLICKER.

The Flicker is a woodpecker and about as large as a robin. Valuable for itself it is still further useful as a provider of nesting holes for innumerable other birds. In fact the greater number of our hole-nesting birds, unable to excavate for themselves, are largely dependent upon holes made and abandoned by the Flicker. A Flicker box should closely approximate the nest he makes for himself—the Berlepsch type hollowed out of a section of solid wood is the best. He is perfectly able to make his home for himself and is, therefore, not bound to accept such makeshifts as other species are sometimes forced to put up with. It will be noticed by referring to the drawings that the cavity is gourd or flask-shaped with a round bottom. This type is not difficult to make. A section of natural trunk is first split and the two halves hollowed out with chisel and gouge to match and then firmly nailed together. A board on the top forms an entrance shelter and prevents rain from draining down the joint. The nest should be placed rather high, preferably facing outward from the edge of a tree or trees.

## SCREECH OWL.

The Screech Owl is not a common habitant of our gardens, but it is often found nesting in neglected orchards where hollow trees give opportunity. It is a small owl, not greatly exceeding a robin in size, but of apparently greater bulk on account of its heavier build and more fluffy feathering. Its colour may be a fine pattern of either ash grey or burnt sienna red, with prominent ear tufts and yellow eyes. It is carnivorous of course, and undoubtedly takes a certain number of small birds, though mice form its principal fare. On the whole, it is much more a friend than an enemy of man. It may sound inconsistent to allow a bird of prey to build in the garden, much more to advocate building a nest box for it, but it is an attractive little fellow with many pretty ways. It is a gross libel to call it "screech" owl for whatever its song is it is not a screech, but a very pretty whistled tremolo, and as soothing a sound as can be imagined. If one can be induced to stay within easy hearing distance from the house, its many other conversational themes will well repay the listener for his attention and will add an interest to the night that other bird voices give to the day. But if the owl interferes with other song birds? Well, it is mostly after mice and prefers them when it can get them; besides Martins, and other birds that can be coaxed into boxes, are probably safe inside when the owl is hunting. I would really hate to have to choose between a Screech Owl and the other birds—Martin colony excepted of course. Almost any one can have wrens and swallows in the garden, but the presence of a Screech Owl gives a cachet of distinction that I would hesitate to relinquish. To fall asleep at night to the love making song of the Screech Owl, to be awakened in the morning by the pleasant gurgles of Purple Martins and pass the day to the songs of wrens and voices

of Tree Swallows makes a modern commonplace garden approach in some degree at least to that from which we are supposed to have fallen.

## SPARROW HAWK.

The Sparrow Hawk is hardly to be classed as an inhabitant of the garden. The smallest of our hawks, scarcely larger than a robin, and the brightest coloured of all our raptures, the blue blood of the falcons runs through its veins. Such a bird cannot be expected to confine itself to the formal restrictions of suburban life. Its home is the open fields, and there it combats grasshoppers and mice in true knightly fashion. Its chateau is in some high flung limb of a tall dead tree. As a nobleman of the old regime it cannot be expected to descend to the manual labour of the carpenter's and mason's trade, but inherits its residence from that useful commoner the Flicker, in whose abandoned or pre-empted stronghold it raises the cadets of its line. With all its nobility or perhaps because of it the Sparrow Hawk is still man's humble though often misjudged friend and it slays the grasshoppers and small mammal dragons of husbandry without let or stint. Though in the east there is probably little need to erect special quarters for it, as its natural habitat is still well supplied with suitable stubs, on the prairies of the west such accommodation is lacking, and it is often driven by necessity to occupy such prosaic sites as telegraph poles. Think how hard pressed a noble falcon must be to descend to such plebeian usage; but *noblesse oblige*, and for the sake of the family line pride is swallowed. In such localities it is a sentimental and esthetic as well as an economic duty to provide this brave little fellow with facilities in keeping with his needs and traditions. The Berlepsch house is the best type and it should be erected as high as possible, over or near what shrubbery is available.





