BIRDS BY THE WAYSIDE, IN EUROPE, ASIA, AND AFRICA.

BY ALTHEA R. SHERMAN.

Introduction.

This narrative is concerned with a journey of ten months' duration, that was begun on Friday, November 7, 1913. is not supposable that the slight inconveniences and the more grievous disappointments occasioned by the war in Europe would have been avoided had the start been made on the thirteenth of a month instead of on the seventh; but this deadly strife having interrupted travel the number thirteen appeared with a frequency sufficient to gladden the hearts of the most superstitious. Though I was thirteen minutes too iate to secure berth No. 13 in cabin No. 13, yet a place was found in the cabin next to it on a steamer that sailed from Copenhagen on August 13th at the thirteenth hour of that day. Our good ship, escaping the mines, together with the ordinary dangers of a sea voyage, that lasted thirteen days, brought us in safety to the blessed shores of Hoboken on August 26th, and the trunk I was forced to leave in London came safely at the end of two months and thirteen days at a cost of \$13.03 only for shipment.

Barring a large curtailment of the journey near its close, its accomplishment in the main was according to original plans without any very serious inconveniences, with nothing lost of greater value than a lead pencil or a hair-pin, and with nothing stolen. My suitcase, locked but once on the entire journey, passed through hundreds of hands; it either contained nothing that aroused cupidity, or the honesty of those to whom it was intrusted is worthy of mention. That one for six months can without accident or delay move forward according to a previously scheduled plan, that has fixed where he shall lie down, and where he shall rise up, where he shall eat, drink, and be held up for tips, must be due to the faithful performance of duty by many humble workers on boats, and railway trains, and all along the avenues of travel.

A conflict of nations, that cut down many a poor lad in his teens, prevented my trip reaching its majority, and I Copyrighted by Althea R. Sherman, 1915.

was obliged to turn back, when on the eve of visiting my twenty-first country. The distance actually accomplished was upward of thirty-three thousand miles; the routes passed ever were for the most part along the well-beaten paths of travel. To general sight-seeing was added the noting of as many birds by the way as possible. This often meant rising in the morning while others slept, and writing notes in the evening, when they were again asleep.

To identify the birds seen was a difficult task for one without suitable "Handbooks" for some of the countries. As much preparation as very limited time permitted was made in advance. For the birds of India help was had from the books of Eugene Oates, W. F. Blanford, T. C. Jerdon, Douglas Dewar, and Andrew L. Adams, besides the small volume of Frank Finn, entitled "The Birds of Calcutta," and a similar book by "E. H. A." bearing the title of "The Common Birds of Bombay." For identifying the birds of Egypt there were used the descriptions of G. E. Shelley, and those of Charles Whymper.

Less fortunate was the work of identification in southern Europe, where I was unable to secure handbooks. Occasionally the name of a bird was given me by a fellow-traveler, and natural history museums, when available, gave much assistance. In order to make the museums of use as full descriptions of the birds as possible were written down at the time of observation; and at times the text was greatly assisted by hasty drawings. The names for many of the species were unknown for months, while those for others are still unsolved problems; one, seen at my most southern stage in Egypt, — the Second Cataract, — was named for me in the most northern museum visited, that of Bergen in Norway; and the clue to the identity of a bird seen at Mount Abu in India was given by a specimen found in the museum of Stockholm. Species with names unknown were numbered, and references to them in the daily notes were made by means of these numbers, though the identity of a few of the species was correctly guessed; others were given temporary names, and my "Jerusalem Chickadee," "Constantinople Crow," and "Interlaken Beauty" serve to awaken quite as

pleasant recollections as do their more prosaic names, learned later. One wonders if it was permitted Eve to name the birds; if so, what rare sport she had!

For book knowledge of the birds seen in northern Europe indebtedness is due to the works of numerous writers, among whom special mention is made of James Backhouse, Bentley Beetham, J. Lewis Bonhote, John A. Bucknill, William Eagle Clarke, Charles Dixon, Heinrich Gätke, James Edmund Harting, John Lea, R. B. Lodge, R. Kearton, Percy R. Lowe, H. B. Macpherson, Robert Mudie, Alfred Newton, W. P. Pycraft, Howard Saunders, R. Selous, A. L. Thompson, N. F. Ticehurst, and William Yarnell.

To speak of the commonest birds by their common names would appear to be a simple undertaking, yet in doing it there are pitfalls for the stranger, which may not always be escaped, and many more beset one's course in the use of scientific names due to lack of uniformity in the various books. Perhaps the most reliable, up-to-date guide in nomenclature is the recent publication, "A Hand-List of British Birds," by the four writers, Messrs. Hartert, Jourdain, Ticehurst, and Witherby. It employs trinomials for subspecies, and includes numerous birds from the British Isles that differ sufficiently from their congeners on the continent of Europe to entitle them to recognition as subspecies. The modifier "British" very properly belongs to them, but the innovation that saddles "Continental" on their very near relation found on the Continent seems to be one scarcely acceptable to the ornithologists of other European countries. The skilled field student may be able to recognize some of these fine distinctions, but it would be the height of folly for the wayside wanderer to pretend to anything of the sort.

The shelves of our libraries groan beneath the weight of the many volumes of books, that treat of the history, custom, art, natural products, commerce, and other interesting topics concerning the countries I visited. Yet from none of the books of travel that I have read does the prospective tourist gain an adequate idea of what species of birds he is likely to see. In fact most of these books are singularly silent on the subject of birds. Books abound that treat of the avifauna of

each of these countries These technical works tell us which are the common birds, but much time is required to sift out these species. The need of the traveler, who must read as he runs, has been well met in those books descriptive of the birds of Bombay and Calcutta, that have been mentioned above.

If there is call for an apology because of this writing, but one can be offered: It is believed that no one heretofore has published an account of the bird life he saw beside his pathway while pursuing a journey that took him over many of the most popular routes chosen by the average tourist. the observations of others tally in any respect with mine the recital of them for the most part will be marked by a negative character: by the failure to have seen very many species of birds about which we have learned in song and story. For the first six months in foreign lands, until London was reached, a scheduled itinerary made out by Thomas Cook and Son was followed by me. After that the viewing of birds entered into the plans: stops for a few days on their account were made now and then; and the famous colonies of breeding sea birds on the Farne Islands, and on the Orknevs and Shetland Isles, were visited. With the exception of a few wonderful sights such as these islands afforded this narrative will be concerned with the common species of avian life. Certainly no one can reasonably expect to see other than common birds on such a trip, and but a small percentage of those.

It is with the study of our common birds at home that most of us are employed. In my own case I count twenty years all too short for a thorough acquaintance with the birds of my own dooryard, where thirty-one species have been pleased to nest. Some impression made by the common birds of other lands, some comparisons between them and those of our country, some notes regarding their scarcity in some places and their abundance in others is the most that can be attempted. The title, "Birds by the Wayside," has been chosen for these chapters, but this does not mean that a desire to speak of other things will always be curbed, and those who care to hear only about birds are hereby given due notice.

INDIA IN JANUARY.

The voyage from New York to Bombay consumed an entire month. This length of time was due to stops of one day each at Madeira, Gibraltar, Algiers, Monaco, and Cairo, and two days at Naples. A few birds were seen at each of the places, and from the Suez Canal, overlooking Lake Menzaleh, was witnessed one of the most wonderful displays of bird life seen on the entire trip, but this was in Egypt, and the account of it belongs to the story of that country.

India was crossed twice by rail; the first crossing was made on the special mail train from Bombay to Calcutta through Jubbulpore in one unbroken journey, the second was through Benares, Lucknow, Cawnpore, Agra, Delhi, Jaipur, and Mount Abu, with stops at each of these places. The two routes are separated in places by several hundred miles. Some species of birds, that were quite numerous in one region were not observed in others. This is true of the Black Drongo (*Dicrurus ater*), one of the birds most frequently seen on the southern route, it failed to be seen at any time in the most northerly part of the trip: that about Agra. Delhi, and Jaipur, but it appeared again farther south about Mount Abu and Bombay.

The Black Drongo, nicknamed the King Crow, has black plumage and a long forked tail. Binoculars reveal to us that the iris of its eye is red, giving it a rather wicked appearance. After the manner of many other flycatchers it perches conspicuously on telegraph wires and fence-posts. In temper it resembles our Kingbird, which accounts for the "King" part of its sobriquet, and the books tell us that it is a valient fighter of the Crows; also that its methods of catching insects and building its nest are such as we observe in our Kingbird. Of the several cousins of this bird only the Whitebellied Drongo (*Dicrurus cærulescens*) was seen. He is a striking fellow in appearance with the keen contrasts of his colors.

Another bird frequently seen along this first route was the Indian Roller (*Coracias indica*). This species, partial to both fence-posts and telegraph-wires, seems to favor the

former. When perched it is a beautiful sight, but on the wing it is a dream of loveliness as its greenish blue colors, mingled with various other shades of blue, gleam in the sunlight. Its brilliant coloring, together with its large size, a trifle more than twelve inches in length, makes it a conspicuous sight, which is noted by all travelers, no matter how blind they are to other birds. Since it hunts for its insect food very much as do our Shrikes there is frequent display of its enchanting colors. Although sacred to the god Siva, this distinction has not saved it from the toils of the plumage hunters, and it is far less numerous than so useful and beautiful a creature ought to be. It was my experience to note the species quite often in some portions of the southern iourney, and in diminishing numbers as far as Delhi, after which none was seen. It is interesting to recall that Mr. Finn has written that he thinks this species can be acclimatized in America. It certainly is a pity that the experiment was not tried upon some such bird instead of the hateful English Sparrow.

The Indian Roller is frequently called a Blue Jay; anent this slip Mr. Douglas Dewar has this to say: "He is not a jay at all; but the misnomer is perhaps a pardonable one, for in more respects than one the bird resembles the true jays, and I am told that the European roller (Coracias garrula), a near relative of the Indian blue jay, is known in parts of Germany as the Birch Jay. American visitors to India, however, make no such mistake. You never hear one of them call the roller a jay. They dub him the Surprise Bird, a name which admirably suits both him and the paddy bird."— To this gratuitous modicum of praise all Americans should doff the hat. That one Briton has seen fit to acknowledge that in one instance Americans can do the right thing in the right place is worthy of more than passing notice. It was a matter of great surprise to me that during six weeks of reading India's newspapers never except once did I find them containing anything but sneers, lies, and misrepresentations, when making mention of Americans or things American; and later I found a similar spirit animating the English press. It offered a problem that defied analysis until the thought suggested itself, that here were examples of that so-called "industrial rivalry" or "commercial jealousy" of which we hear so much. That these were unsuccessful efforts of the British to rival similar sneers, lies, and misrepresentations "made in Germany." It was a hopeless competition, yet it rendered none the less amusing the scramble, after August 5, 1914, of the English and Germans for our good will and good opinion.

Along the railway route through Jubbulpore (and occasionally in other parts of India), two species of birds, both small and green of plumage, were quite numerous. These were the Common Indian Bee-eater (Merops viridis) and the Crimson-breasted Barbet (Xantholæma hæmatocephala). A large flock of the Barbet was seen daily near my hotel in Delhi, and they were quite plentiful on Mount Abu. They are rather droll, clumsy-looking, little fellows, as one would expect to be true of a species closely related to the wood-peckers. Their predominant color is green with sulphuryellow trimmings about the head, and with patches of crimson on the forehead and throat. Unfortunately for the tourists these birds are silent during cool weather, and we did not hear their peculiar metallic notes that have earned for them the nickname of Coppersmith.

In spite of the brilliant green coloring of the Common Indian Bee-eater its gentle mien and flycatching habits constantly remind one of the Phœbe, and the impression is deepened, when we find three or four of them sitting closely together on a branch in the exact fashion of a brood of young Phœbes. The books say that this fondness for each other's society leads them in some places to roost in large companies; also that they nest in burrows that they dig for themselves in the banks of the rivers and ravines. Although their size and colors are similar, yet their slender forms and long central tail-feathers readily distinguish them from the short-tailed chunky Barbets.

A rough delineation of the country traversed shows that for a few hours out from Bombay the railroad runs through a rather barren country with high, irregular hills — the Westcrn Ghats - rising on either side, then the valley widens, more of the cultivated fields appear with trees in rows or in scattering groups. Herds of the Indian buffalo cattle and flocks of goats are fairly plentiful. On the second day we passed through a sterile region in the neighborhoods of Sutna, Jaitwar, and Markundi, and a still worse strip east of Manikpur: its chief crop — that of stones — seemed to be unfailing and was harvested in long, narrow piles, which were nicely leveled off on top. In other places the face of the country was fresh and green with young crops, with here and there a field blue with blossoming flax. It seemed reasonable to suppose that an old country, densely populated, and devoted largely to agricultural pursuits, would look old, and that the thronging millions that cultivated the fields would be much in evidence. Instead, in many places the country looked as new and untrod as did portions of Dakota and Montana twenty years ago, and the people when seen appeared to be in a homeless wilderness until the eye detected here and there miserable villages, composed of mud huts of the same color as the ground from which the mud was taken; these hovels were low, without visible windows, and with roofs of straw or rushes. The houses of a better class were covered with tiles.

The railway journey to Calcutta occupied forty-four hours and terminated in the gray dawn of a January day. It was in this city that the more leisurely observation of the birds began. Among the first birds noted were two representatives of a species not met with afterward, though it is said to be a common species in winter throughout the region of the plains. It was a brown bird that perched on dead twigs and flicked its tail like a Phœbe, being about the size of that bird, but the shape of its head was shrike-like, as were its motions when it darted to the ground for insects, therefore it was with genuine satisfaction I found that afternoon in

the Indian Museum a mounted specimen of the species labeled Indian Brown Shrike (*Lanius cristatus*); and near it another specimen of a female Indian Koel (*Eudynamys hon*orata), which settled for me the identity of a large speckled bird that was watched for a long time that morning. It belongs to the Cuckoo family, and arouses interest, because true to the traits of its tribe, it lays its eggs in the nests of other birds.

Besides many interesting glimpses of the industrial life and customs of the natives, a visit to the banks of the Hooghly River afforded an introduction to the Brahminy Kite (Haliaster indus). Several of these handsome birds were flying over the river; others perched in the rigging of ships were pruning themselves. This is another species that shows great beauty of coloring when on the wing, the bright, clear, chestnut-rufous, or maroon color of its upper plumage, contrasting finely with the under parts, which are white, narrowly streaked with brown; its head and neck are white also. This scavenger of the surface of the river was frequently seen to the westward as far as Benares, gracing now and then the top of a fence-post by the wayside, from which it watched for frogs and crabs, and other favored tidbit.

Calcutta was the only place in which the Common Indian Swift (*Cypselus affinis*) was identified. Numbers of them were noisily flying above my hotel; both their notes and their appearance in flight were suggestive of our Chimney Swifts. They are said to build their mud nests against the beams and rafters of houses and of porches, and return to these nests for roosting. This trustfulness in mankind makes the species one of the many in India that could be brought under very close observation.

Of three species that were seen in great abundance almost everywhere it is difficult to say which were found most plentiful. All were more numerous in the cities than in the country. The Indian House Crow (Corvus splendens) was not seen on Mount Abu, and the Common Pariah Kites (Milvus govinda) were not numerous there. The Common Myna

(Acridotheres tristis) was not seen in Bombay, although it is said to be a resident. Without appearing to exaggerate it is not easy to give an adequate idea of the very great abundance of these species. Nineteen Indian House Crows standing on a plot of ground no more than ten feet square in a Calcutta park were thought exceedingly plentiful, but afterward they were seen in greater numbers. Looking up a narrow street the air above it seemed full of the Common Kites, one hundred or more of them being in sight; and of the Common Mynas, flocks of twenty or thirty appeared ready to fly up from one's path almost everywhere.

Especially well named is the Indian House Crow, a bird that belongs to the crow family, found in India most abundantly in the neighborhood of houses. It is comparatively fearless, and in its search for scraps of food will walk with the boldness of a very tame chicken among a group of natives who are eating. Neither is it averse to coming to porch floors or perching under porch roofs. Those who are intimately acquainted with this Crow tell us that it will enter houses and eat food from the table, "for there is no right to which the Crows cling more tenaciously than the right to be fed by the man whose compound they clean." "Black as a crow" is not applicable to this species, since gray is the predominating color, although the head and nape are black. It is a very noisy bird, and all day long one's ears are filled with its tiresome cawing; how tiresome these sounds are is realized when one is out of ear-shot of them. The failure to hear them on Mount Abu was one thing that caused that place to be so attractive. Their place was filled in a very slight measure by their cousin, the Jungle Crow, or Indian Corby (Corvus macrorhynchus).

The Common Kite, less bold than the House Crow in its approaches to man, is by no means a timid bird. A lady in Delhi in relating to me her experiences with this species, said that once when eating out of doors a Kite came so silently and so deftly snatched food from her hand that she was not aware of her loss until the bird had flown some distance from

her. On another occasion a Kite tried to snatch from her hand a paper bag containing food. Having read similar stories I was led to inquire of my guides and other people if these were common experiences, and learned that they were, except that often the Kite left a painful scratch.

A pair of Kites was watched while building their nest in a neem tree that stood in the hotel yard in Jaipur. The work proceeded very slowly. The twigs were carried sometimes in the bill, sometimes by a claw; once the bird took up the twig by its bill, then shifted it to a foot. Bill and claw were used about equally in the carrying. It was at Delhi that Kites were observed when going to roost in the top of a peepul tree. They perched among the topmost limbs on the highest twigs, and when the coming and going ceased, there remained for the night thirty-seven of these birds. The Kite equals, if it does not surpass, our Red-tailed Hawk in length; in weight it must be very light for such small boughs to support so many of them.

The Common Myna resembles in size and build the Starling, but has the street habits of the English Sparrow, yet in some of its country habits it is like the Starling, especially in its fondness for the neighborhood of cattle and for perching on their backs. It has a fine appearance, produced by plumage that is black on head, neck and throat, and iridescent vinaceous on breast and belly. When in flight it is easily recognized by the white patches on the wings, and the white in the tail. These spots of white serve to distinguish it from its cousin the Bank Myna (Acridotheres ginginianus) on which the wing patches are pinkish buff, as is also the tip of the tail. In the latter species the skin around the eye is brickred, while in the Common Myna it is yellow. The Blackheaded Myna (Temenuchus pagodarum) is known as the Brahminy Myna because of its elegant appearance and the distinguished air imparted by its long black crest, and the elongated feathers of its neck, throat, and breast, which in color resemble the breast of our female Robin. This species was seen several times in a free state, also frequently in captivity along with its cousin, the Grey-headed Myna (Sturnia malabarica).

The avian sights viewed from the car windows, that were of a thrilling nature, were confined to those portions of the journey that were between Bombay and Calcutta, and to that which lies eastward of Benares. Westward of that place the plains soon became drier, then drought-stricken, and with increasing aridity the number of birds decreased. East of Benares the level green fields were in all directions very much alike. There was no lack of water, but rather an excess of it. From the many ponds by the track-side were startled huge birds: Vultures, Storks, and Herons, sometimes singly, again in flocks. Often the train rushed past stupid looking birds of a smaller species, standing in the wayside pools. These gray, obscure appearing creatures frequently took flight, whereupon from the gray unobtrusive forms there arose visions of white loveliness, that floated off a short distance, then suddenly sank into the earth — apparently — for the birds had alighted and were a dull, concealing gray once more. Here, in truth were the "Surprise Birds"! for these were Pond Herons, sometimes called Paddy-birds (Ardeola gravi).

Since all my stops, except one, were to be within cities, small hope of seeing birds there was entertained, but in this respect there was to be a pleasant surprise. The native quarters in the cities were as one would expect to find them, compact, crowded and dirty, but the European portions in which the hotels were located were like our ideal suburban villages, each house having spacious grounds about it; these are not called yards in India, but compounds. Their trees and flowers, together with the irrigation necessary for the latter, attracted many birds. The patronage of these hotels was almost entirely that of tourists, a large proportion of whom were Americans. From them there was much growling because the dinner hour never began until eight o'clock in the evening, and breakfast was not ready until nine o'clock in the morning. But in the latter arrangement there was compen-

sation for the bird student. By rising at the first peep of dawn it was possible to secure two hours for the observation of birds before breakfast time. Yet this boon was not without its drawbacks, in the hotels that were lighted by kerosene. When I found that my rooms on the ground floor had a back door so badly warped that two cobras abreast could enter at any time, and that there were no matches with which to light the kerosene lamp, I had fears that my first steps in the morning might fall on a cobra. To be sure it was winter, a season when these snakes are not much abroad. We are not accustomed to think of snakes as city dwellers, but the deadly cobra is quite urban in its tastes, seeking for its dwelling-place a hole in the mud walls of the natives' huts: cactus hedges also are favored resorts. Not only cobras but other venomous snakes are sometimes found on bedroom floors, in schoolrooms, and in other human resorts, as we may learn from several writers.

One of the species of birds frequently seen near the hotels was the Indian Hoopoe (Upupa indica). Both the manner of its flight and the barred portion of its plumage were strong reminders of the Woodpeckers. Immediately upon alighting its bright-colored crest is erected, and the same thing happens when the bird is frightened. At other times the crest lies flat, the end of it projecting beyond the head affords in outline a symmetrical balance to the long bill, making the head resemble a double-pointed pick-ax. This semblance is especially marked when the bird is digging for its living in the earth. The sight of my first Hoopoe was a long anticipated event, and was of unusual significance from the fact that it was the first foreign bird in a free state to be met of which I had retained a mental picture from my early childhood, or more correctly speaking, it was a mental picture of a picture. one found in the second book I owned. It was a book then, a wonderful book, though now it would be called a tiny brochure of twenty-four pages. Its title is "A History of Birds for Children." Its illustrated cover is wonderful; still more so is its wood-cut illustration of the Hoopoe, for it proves the theory of evolution. This illustration shows that fifty-five or more years ago the Hoopoe was a thick-set, thick-billed bird, resembling a Grosbeak, with a gently curving crest becoming to the form and disposition of a Bluebird. In the course of ten or twelve years the structure of the species had undergone considerable change, which can be proved by the picture of it that is to be found in Webster's Unabridged Dictionary, edition of 1870. And now in January, 1914, I find from the living birds seen in India that in a structural sense vastly greater changes have taken place within the last forty-five years. The bird at present, with its short legs, long, sharp bill, and barred wings, looks somewhat like a woodpecker. In fact, some of the tourists insisted that it was a woodpecker.

One Golden-backed Woodpecker (Brachypternus aurantius) was the sole representative of the Picus family seen in India. With the usual cheerful spirit that characterizes the family the world over it searched tree trunks and inspected the hood of an electric lamp on one of the principal streets of Delhi.

Other species of birds found by me near the hotels more often than elsewhere were the Bulbuls, the Babblers, Indian Tree-pie, Common Indian Starling, Magpie Robin, Brownbacked Indian Robin, Indian Redstart, Indian Tailor-bird, Flycatchers, Warblers, and Purple Honeysucker. Some ornithologists prefer to call the last mentioned species the Purple Sunbird (Arachnechthra asiatica). By its quick movements among the flowers while seeking its food of insects and nectar, as well as by its size and color, it brought to mind the Hummingbirds. Especially is this true of the male Sunbird, that is of a rich, iridescent violet-blue color, while the female as described is greenish brown-gray above, and greenish yellow beneath. Both sexes were seen, but the male more frequently.

The Red-whiskered Bulbul was seen and positively identified a short distance from the entrance to the Caves of Elephanta; on a few other occasions identification was not so

The Common Bulbul was found in several places, but nowhere so plentiful as on Mount Abu, where it appeared to be the most abundant species, even outnumbering the Common Myna. These two species were the only Bulbuls of which I made sure, although India boasts of fifty other species of them; and of Babblers there are eighty-three, of which I saw but two, the Common or Striated Babble (Argya caudata), and the Jungle Babble (Crateropus canorus). last named species, very inconspicuous in its ashy brown plumage, with its ground-haunting proclivities, would not be so easy of identification as one might suppose, if it were not for its habit of flocking in small parties of five, six or seven birds which affords a clue to their identity, confirmation of which may be had from almost any guide, since these birds are commonly known to the natives by the very appropriate name of the Seven Sisters, or the Seven Brothers.

The Indian Tree-pie (*Dendrocitta rufa*), a bird eighteen inches in length, is certain to arrest one's attention by its pleasing display of colors and its long tail. Its metallic whistle is fully as musical as the call notes of the Bronzed Grackle, nor has it a better reputation, since it is well-known as a destroyer of both birds and their eggs.

One of the pleasures that may be experienced by the winter traveler in India is a wayside acquaintance with the Indian Tailor-bird (Orthotomus sutorius), though it is not the season to see the bird engaged in its sartorial tasks. All that one sees is a little wren-like bird with a rufous crown and yellowish olive-green upper plumage; that cocks its tail while running about in search of food. Jerdon and several other writers tell us with considerable detail of the manner in which the Tailor-bird begins its nest by drawing together two leaves or the edges of a single leaf, pierces with its bill holes along the edges, then sews the edges together, using for this purpose a thread it has picked up, or one it has spun for itself, or strands from a spider web; that after thrusting the thread through a hole in a leaf it ties a knot, which prevents the thread from slipping through the hole. This is but one more

example of carelessness in observation that has led to erroneous theories which have been handed down by one writer to another. It remained for Mr. G. A. Pinto to actually watch a Tailor-bird, while building her nest, and to note down what he saw. These observations have been published in Mr. Douglas Dewar's book, "Birds of the Plains," and show what the bird really does: That through the punctures she makes in the leaf she pushes cobwebs, threads, and later on the cotton of the nest lining, which form knobs on the outside of the leaf, and to conclude in the words of the author of this book: "As a matter of fact the bird makes no knots; she merely forces a portion of the cotton strand through a puncture, and the silicon which enters into the composition of the leaf catches the soft, minute strands of the cotton and prevents them from slipping."

Three species belonging to the Turdidæ family were seen in numerous places. These were the Indian Redstart (Ruticilla rufiventris), Brown-backed Indian Robin (Thamnobia cambaiensis), and Magpie Robin (Copysychus saularis). All are small birds, the last mentioned, eight inches in length, being the largest. In each species the plumage of the female differs somewhat from that of the male. The very effective arrangements of the black and white colors of the Magpie Robin make a beauty of this dapper fellow. He ranks very high as a singer, and is known to the natives by the name of Dhyal. The close resemblance of the Common Starling of India (Sturnus menzbieri) to its European cousin serves to identify it at once.

One of the very few species of birds that I saw in each of the grand divisions, Europe, Asia, and Africa, was the White Wagtail (*Motacilla alba*). Aside from the House Sparrow it was the species most widely and frequently met. It was seen in its winter refuge in India and Egypt, and in its summer home in the countries of Scandinavia. In the vicinity of Mount Abu two other members of the Motacilldæ family were seen. These were the Grey Wagtail, and its very hand-

some relative the Large Pied Wagtail, — the Motacilla maderaspatensis of several authors.

The Rose-ringed Parrakeet (Palæornis torquatus) was the species of Parrot seen in India. The life it leads seemed a merry one, judging from the noisy parties of screaming birds, that flew so frequently overhead, especially toward roosting time. They were not always seen on the wing, but often were climbing about in the trees and cactus hedges, or sometimes were sitting on a branch eating some kind of fruit, that was as red as their beaks. Another native species of India did not require a handbook to assist in its identification; this was the Peacock of which only one wild bird was seen; the others appeared in a state of semi-domestication, but not so tame as they become with us. The mention of this bird in its native haunts calls to mind the stories of the famous Peacock Throne, that formerly stood in the imperial palace of Delhi, but together with other bootv of war was carried off to Persia nearly two hundred years ago. The guide-book of G. A. Natesan contains the following description of this throne: "It owes its name to the two hybrid birds of a species quite unknown to the ornithologist, perched on the pinnacles. They bore a faint resemblance to peacocks, whence followed the adoption of the peacock as a badge of The expanded tails, thickly studded with Indian Empire. sapphire, rubies, emeralds, etc., inlaid so as to represent the exact colours of the living birds, formed the back of the throne. Between the peacocks was a parrot, as large as life, carved out of a single emerald. This throne is (or rather was, for experts declare that very little of the ancient throne remains), no doubt, of immense value, the lowest estimate being two million sterling. In shape it resembles rather a state bed than a throne. It is made entirely of gold - steps, sides, and legs - and is artistically chased and encrusted with countless precious stones."

Although this wonderful example of the goldsmith's art has been lost to Delhi, there still remains the superb structure in which it stood. Upon its wall are inscribed these lines:

"If there be a paradise on earth,
It is this, it is this, it is this."—

Words cannot depict, nor pictures suggest the simple grandeur of this Diwan-i-Khas, or Hall of Private Audience; but the following description by another is among the most successful attempt: "The whole is all white marble, asheen in the sun, but that is the least part of the wonder. Walls and ceilings, pillars, and many pointed arches are all inlaid with richest, yet most delicate, colour; gold cornices and scrolls and lattices from traceries of mauve and pale green and soft azure. What must it have been, you ask yourself, when the Peacock Throne blazed with emeralds and sapphires, rubies and diamonds, from the now empty pedestal, and the plates of burnished silver reflected all its glories from the roof."

Not far away is the Diwan-i-Am or Hall of Public Audience, built of red stone, except that white marble is used in front of the throne recess. The juxtaposition of the two kinds of stone produces a very poor effect, which is enhanced by the patchwork impression wade by the arrangements of the mosaic panels on the rear wall. There are about three hundred and fifty of these mosaic pictures, large and small, representing birds, flowers, fruit, and animals, more than half of them portraying birds. A closer view shows them worthy the attention of bird students. Not only is there spirited and realistic action expressed in the drawing of the birds, but the color is often most excellent; especially is this true of four pictures of Hoopoes. Sometimes the birds are perched, others are on the wing. When it is remembered that these are made of stone, that at times one piece of stone represents the feathers of a tail or of a wing the accomplishment seems remarkable.

India's monuments are far-famed and a lure for many visitors. Thrice fortunate are we whose favorite studies have been history, art, and ornithology, for that country affords rich fields of study in all of these. If there had been no other

wonderful sight except the Taj Mahal its justly great repute was sufficient to have induced me to make the journey half way round the world to see it. Easily we remember Sir Walter Scott's injunction about viewing Melrose Abbey aright, but even more appropriate is this warning for the seeing of the Taj Mahal. I shall always be grateful to the lady who added the advice that the first visit to this "dream in marble" should be made by moonlight. The fates were propitious for the fulfillment of this suggestion. There was a full moon the evening my train from Cawnpore, about an hour late, arrived in Agra sometime after ten o'clock. pursuing my itinerary under the direction of Thos. Cook and Son I was always met at each railway station, that I stopped, by a man sent from the hotel where I was to stay. otherwise I might not have ventured to ask that the driver take me to the Taj before going to the hotel

It was a memorable ride: the first portion was made under the shadows of the massive and frowning, though impressively attractive, walls of Fort Agra; then for some distance the road lay amid surroundings that looked in the moonlight like the suburbs of a flourishing American town, whose houses are placed in spacious grounds. This impression does not hold by daylight, but the Taj is isolated from other buildings by a considerable distance. At the entrance gate the driver left me to spend an hour or more within the garden that lies before the Taj. It may be sufficient to say that the "poem in stone" was all that fancy ever painted it; or in the words of another — "To describe it would be impossible, and as I saw the Taj that night not a detail, not a single feature impressed itself upon me, but instead the whole, the shape of something infinitely beautiful floats before me just as it did then, and it would not be sacrilegious to say, 'twas a vision such as man may never hope to see until his spirit gazes on the celestial temples through the beautiful gates ajar."

There were other visitors in the garden; the seats on the raised platform near the center were filled with groups of people, but no chattering tongues were there, not a word fell from the lips of any one. The only sound heard was the silvery tinkling of the little fountains beside the paths. An artificial light gleamed from the doorway; a mere point of light did the illumined doorway appear when compared with the entire structure. It seemed to beckon me like a will-o'-thewisp, and responding to the beckoning I advanced, then withdrew; at last I approached the very doorstep, but dared not break the spell of the night by entering.

Considerable time was given at one period of my life to the subject of Saracenic art and ornamentation, therefore I longed to linger over each of the remarkable examples that I met. Notwithstanding the great beauty of the interior decorations of the Tai I deem them surpassed by some of the mosaics to be found in the so-called "Jasamine Tower," a portion of the harem of Shah Jehan's palace in Fort Agra. In the same inclosure is the Pearl Mosque, truly a pearl among mosques, renowned for its exquisite proportions, for the simplicity and peerless beauty of its design. these gems of the architect's art one is tempted to linger, and to note among other things that the artists of Shah Jehan's time were allowed to depart from the rigid laws of Saracenic art that forbade any likeness of living things in their decorations: also that the mosaics that ornament the tomb of Akbar at Sikandra, conforming strictly to the canons of that art, consist of geometric patterns, but are far less pleasing than many of the purely Saracenic mosaic designs that may be found elsewhere. A queer structure is this tomb of Akbar, and similar tombs of several kings at Lucknow. From a distance such an edifice, large enough for a palace, would be taken in America to be a casino or a summer hotel.

Temptation comes to continue this digression: to speak of visits to the deserted cities of Amber and Fatehpur Sikri; of some of the sights of Benares, such as the Golden Temple, the Monkey Temple, and the Cow Temple, which is the home of sixty sacred cows: paved with tiles and gayly ornamented, it probably is the finest cow-stable in the world. But for the

naturalist a visit to the temple of Galta Pass (written also Gulta Pass) must prove the most interesting. There the monkey is worshiped and fed. The chief species seen there is a long-tailed, black-faced sort, - the Langur Monkey (Semnopithecus entellus) if I mistake not. The surrounding hills are said to be full of them, their number being estimated at a thousand or more. The hour of my visit was late in the forenoon, and many pious Hindus had preceded me, so the monkeys were not hungry, yet a little calling soon brought from twenty to thirty of them trooping over the hills. The party consisted of an old male and his harem of ten or twelve females, each female carrying a youngster of a few months, and followed by about an equal number of halfgrown young ones. A bag of parched millet had been taken along for feeding them. For me it was a unique experience to be surrounded by these animals, to have one mother monkey after another seize my hand with one of her hands, while with her other hand she quickly picked up the grain and stuffed it into her mouth. All were soon satisfied, and the mothers sat down closely about me and nursed their babies. The half-grown fellows kept by themselves. Both they and the babies at times indulged in play, wrestling, pulling each other's tails, and playing "leap-frog." Here was a place for the student of animal behavior to pitch his camp.

In both country and city, on the ground, on the housetops, and in the trees, almost everywhere near human habitation was to be seen the little, striped, gray Palm Squirrel (Sciurus palmarum). These squirrels, two or three species of monkeys, and occasionally a mongoose were the principal wild mammal seen. A nodding acquaintance was scraped with a few species of trees. One cannot give attention to birds without wishing to learn the names of the strange trees in which they were found. Those I now recall were chiefly the peepul, neem, tamarind, sal, and banyan, with here and there a palm.

Most travelers go to Mount Abu to see the Dilwara marble temples, which certainly do repay the trouble of a long journey. Dating from the eleventh century these Jain temples are said to be unsurpassed for the delicacy and beauty of their carvings. This statement is easily creditable for there seems to be scarcely a square foot of the marble surface that is not most elaborately carved. Birds, beasts, fruit, flowers, and human figures are the decorative units in a great variety of design; each pillar and ceiling differing in design from its neighbors. This mountain has been a sacred place for ages, and mention of it is made by Pliny, and other ancient writers.

The village of Mount Abu, having a population of about five thousand, is situated at an elevation of nearly a mile above sea level, and contains the country home of several Maharajahs and other potentates. This restful spot is in delightful contrast with the places of the plains; the bracing air is not ladened with the odor of burning manure, used by the natives for fuel; the screaming of Kites and cawing of Crows are not incessantly in one's ears; and there does not appear such abject poverty and squalor. The birds both in numbers of individuals and of species exceeded those seen Many of the Flycatchers and Warblers were seen in no other place. There were about twenty of these species for which I never found the names. A few of them were of brilliant plumage. A bird that held my attention because of its sprightly behavior was the White-spotted Fantail Flycatcher (Rhipidura pectoralis), another attracting the eve by its fine color and dashing appearance was the Southern Yellow Tit (Machlolophus haplonotus). On the road up to the village the Indian Grey Titmouse (Parus atriceps) was seen, and in several places the Indian Grey Shrike (Lanius lahtora) was passed. Near the village is a small lake where birds were abundant. Two visits were made to it, and on both occasions a pair of Red-wattled Lapwings (Scarcogrammus indicus) was seen close at hand, and at a greater distance were shore-birds, ducks, birds of the Cormorant family, which probably were Shags, and Coots. It always did

seem good to see a Coot, a bird that was precisely the same as those we have at home.

I had paid in advance for four rickshaw rides, but it suited my purpose better to go afoot and alone in the neighborhood of the village, and to confine the rides to two half days. I found the rickshaw as heavy as a buggy, and when empty it was hard to pull up hill; therefore I walked on the up grades, and let the rickshaw boys draw me when the road was level or down hill. An interpreter explained to them for me, that when they heard the word "Stop!" I wished to view a bird. They soon became very observant of the birds, pointing them out to me, and stopping for Doves and Mynas, and other species that I may have seen scores of times that day. They looked at the birds through the binoculars, and when I was using the glasses they picked flowers with which to deck my rickshaw. They helped me over slippery and dangerous paths with as much gallantry as any one could show, even though they were unlettered and more than half naked. On the whole the three rickshaw boys seemed to have had a very enjoyable day.

The drive of seventeen miles from the station to the village was made by tonga, with a change of horses occurring every three or four miles, making use of ten horses for the trip going up. The return journey was about as disagreeable as rapid traveling could make it. For pleasure I should choose neither tonga nor elephant-back riding. The sample I had of the latter was on the excursion to the deserted city of Amber. In answer to those asking about the sensations of such riding it may be said that one feels rather high up in the world when he can put his foot on the roof of a porch that he is passing. The gait of the elephant produces a churning motion, which in turn inspires the thought that there has been a nicely balanced adjustment in the distribution of the animal kingdom, inasmuch as the elephant and the Iersev cow are not indigenous to the same territory. If they were, those partial to a milk diet, when journeying on an elephant, might sometimes find themselves full of butter.

Owing to an accident to the automobile on the return trip from Futchpur Sikri there was afforded me experience with two other styles of vehicles. We, four passengers from the disabled automobile, chartered two ekkas to take us into Agra. The short and fat Englishman, who was my companion in the ekka, counseled a tight hold upon the bamboo poles that supported the canopy-top of the ekka. The driver started the little pony off at a rattling pace. We were rattled, jolted, bounced about for a matter of fifteen or twenty rods; whatever the distance, it gave time for reflection: for wondering if flesh and bones could survive two miles of such traveling. The pony stopped; the driver gave him the lash; the poor pony, quite untaught regarding the laws of gravitation, reared upon his hind legs, and the two heavy-weight passengers gently bore the back end of the ekka to the ground. If we had gone down suddenly it would have meant a broken arm for me instead of a bad bruise. Our weight held the pony in mid-air, between the thills, and he remained in this unnatural position when we drove away in the next vehicle that came along, which was a gharry. The moon-faced young Englishman appeared to enjoy the adventure, perhaps he is laughing still, as it was the last I saw of him.

Whether the terrible jolting one gets on the railway cars of India is due to the roadbed or to the cars themselves I am unable to say. Dust there is in unstinted abundance, but no crowding for the first-class passengers. Except for a few hours on four occasions I had a whole compartment to myself; the dimensions of some of these were about seven by ten feet, and they were intended to seat six or eight passengers. The seats are uncomfortable, being too wide for seats and too narrow for beds. By keeping one's back pressed tightly against the back of the seat while sleeping the passenger does not run great risk of being jolted off, but such a position becomes very tiresome. I found two easy methods of relief: either the positions of head and feet may be reversed, or better still, one can move self and bedding to the

couch on the opposite side of the car, — an efficient though elaborate way of turning over in bed.

White-breasted Kingfisher (Halcyon smyrnensis) seems like a very tame and commonplace name for the gorgeous creature to which it belongs. Most assuredly the bird is white-breasted, but its beak is coral-red; its head, sides of neck and body, its abdomen and under tail coverts are a rich dark chestnut; there is greenish blue on scapulars and wings; cerulean blue and dull blue on large portions of its plumage. It is a very pretty bird and of common occurrence, haunting quiet places in city parks, as well as less frequented spots. The Pied Kingfisher (Ceryle rudis) is spotted black and white, as its name implies. It may be seen hovering over the water in search of its prev in a manner similar to some of the terns. A bird larger than either of the fore-going species is the Large Crested Black and White Kingfisher (Cervle guttata). It was seen in but one place. The same is true of the Wiretailed Swallow, but the pretty Red-rumped Swallow was seen frequently. At some hours of the day from my hotel window in Bombay I could look down on many individuals of the swallow family, busily "policing the air," that appeared to be none other than the Swallow (Hirundo rustica), common to northern Europe in the summer, but at that time in their winter retreat. With much less certainty is it possible to designate as Crag Martins the birds that were seen flying before the vertical fronts of some of the cliffs of Mount Abu.

In comparison with the numerous species and subspecies of native sparrows abounding in America the continents of the Old World seem singularly barren of sparrow life, except that furnished by *Passer domesticus* and some of its very near relations. My notes record the impression that in Bombay I found the House Sparrow as conspicuous and noisy as at home. In Calcutta additional proof of its offensiveness was offered by a pair that had gained entrance to the diningroom and was flying about far out of reach beneath the lofty ceiling.

Both Doves and Pigeons are very abundant in India. I

think I saw the Spotted Dove (Turtur suratensis) more frequently in the cities than elsewhere, and the Little Brown Dove (Turtur cambayensis) was found oftener beside the country road. So plentiful in some places is the Blue Rock Pigeon (Columba intermedia) that it seems to be a positive nuisance: this is true in particular of Jaipur, where the species literally covers large spaces in the wide streets, where it crowds into and defiles such buildings as the Hall of Public Audience of the Maharajah. This is a building that no one ought to fail to see, for without ocular confirmation it is hard to believe that there could have been built such a hideous structure within a short railway ride of the Taj Mahal at Agra, or the Hall of Private Audience at Delhi.

The Vultures have been left until the last; and it seems obviously proper to make those species of this family the very last, that would make the last of us very speedily if they got a chance. Consequently the White Scavenger Vulture (Neophron ginginianus) claims first consideration. It is a common species, and was seen wherever I went, except near the coast. From my window in the Cecil Hotel, Agra, one of them was seen sitting in a bulky nest in a neem tree not more than twenty-five feet away. A position on the roof, overlooking the nest, was sought at once, but the nest was empty when the bird left. Such a location was highly advantageous for study when the nest life was in progress.

The White Scavenger Vulture at times has a woe-begone, dishevelled appearance, as if it appreciated the contumely heaped upon it by mankind. In view of its single shortcoming it is a pity that the bird cannot talk back. If it could its reply would probably be something like this: "Oh, vainglorious man! wherefore do you cast such volumes of reproach upon me? Am I not a faithful spouse and a devoted parent? Do you ever see me figuring in the divorce courts because of inconstancy, or my offspring deserted by me, left to the tender mercies of strangers in my tribe? Do you see me robbing my brothers or slaying millions of them in unholy war? Your sole accusation against me is that I am a scav-

enger and not too proud to eat human ordure; but what living creature do I harm by my tastes? Certainly I take nothing that turns me into a frenzied fiend so that I beat my mate, kill my offspring, and endanger the lives or happiness of my neighbors, nor do I smoke a filthy weed that poisons the air for every one near me. Oh, you contemptible man! I have seen you fill with smoke the air of a small enclosure, where were others of your kind, men and women. unable to escape, who were sickened and gasping in utter misery. So I say unto you, critical man, that unless you can show more decent taste, you have no right to criticise mine."

Besides the White Scavenger at least three other species of Vultures were seen: the Black or King Vulture (Ortogyps calvus), the White-backed Vulture (Pseudogyps bengalensis), and the Long-billed Vulture (Gyps tenuirostris). most instances they were distant about an eighth of a mile, but sometimes no more than half of that distance. As a rule they were in desolate places: along a river bank or about some ruin. Across the giver from the Massacre Ghat at Cawnpore were several of these birds. While using my binoculars I saw one waiting for a dog to finish its repast. The object being devoured looked very human, and my guide affirmed that it was the body of a man that had drifted ashore some days before. Two human skulls lay directly in front of the Tai Mahal on the banks of the Jumna River and were detected when the glasses were turned upon some Plovers feeding there. Such ghastly finds are not so surprising in a country teeming with millions of Hindus, whose religion forbids the burying of the dead, and where the cost of the wood for the funeral pyre is almost prohibitory for some families. On the morning of my visit to the bathing ghats of Benares I witnessed two Hindu funerals: the first was that of a woman, and her nearest relative, after walking five times around the pyre, applied the torch; the other was that of an infant, whose body was weighted with stones preparatory to its being cast into the Ganges, for this is the disposal made of the bodies of Hindu children who die before they have

attained the age of three years. In this river were hundreds of pious Hindus taking their sacred baths, energetically scouring their teeth, or drinking the water dipped up by the hand.

The immense number of tombs to be seen outside of some of the cities tends to create the feeling that India is one vast graveyard, but these are Mohammedan tombs, showing the fruits of death's harvest for a few hundred years only. Another religious sect, the Parsee, holds that the elements are too sacred to be polluted by the dead, hence their bodies cannot be burned nor cast into the water as are the Hindu's, neither must they desecrate the earth by burial therein. To obviate these things Towers of Silence are provided on which the bodies of dead Parsees are exposed to the Vultures the White-backed and the Long-billed are the species in Bombay that are said to frequent these towers, there being about three hundred birds that divide their time between the towers and the slaughter-houses. In Bombay the stated hours for funerals are nine o'clock in the morning and five in the afternoon. The Vultures begin to assemble regularly an hour or two before funeral time. When I was there at three p. m. from twenty to thirty birds had arrived and were waiting on the walls. They are said to complete their task within the space of two hours. There are five of the towers; some have private ownership, one is for criminals, suicides, and for the bodies of the unfortunate Parsees that chance after death to be touched by some one outside the caste. The principal tower is twenty-five feet high and nearly ninety feet in diameter. The approach to this strange place is up a hill, through a little park made beautiful by trees and flowers and the songs of birds.

Notwithstanding some unpleasant impressions the memories of India are mainly agreeable ones, and it appears to be a prime favorite with most travelers. To one spot especially I longed daily to return. That was the natural history museum in Lucknow. It is my purpose to speak of it more fully in a chapter devoted to the museums that were

visited. It may be sufficient here to say that no bird student should fail to visit it.

Enough of the abundance and fearlessness of the birds was seen to create a feeling of certainty that it is a land where one would gladly tarry for the sake of bird study. From the books we may learn of the many species that build their nests in, close to, or upon the walls of human habitations, and in addition to these the number of hole-nesting species appears to be unusually large. Of such are the Starling, Roller, Hoopoe, Magpie Robin, Brown-backed Robin, Common and Brahminy Mynas, Southern Yellow Tit, Grey Tit, Parrots. Crimson-breasted Barbet, and Woodpeckers, all of them nesting in holes in trees or buildings, while in holes in banks there nest the Bank Myna, Common Bee-eater, and the King-When properly managed with boxes having peepholes for observations, the home life of hole-nesting birds becomes easy to watch and eminently opportune for thorough investigation. To watch the progress of the nest life, from egg laying until the fledgling leaves the nest, at no greater distance than sixteen to twenty-two inches from the eye has been my privilege with four hole-nesting species: the Northern Flicker, the Screech Owl, the Sparrow Hawk, and the House Wren, and deep designs are planned for laving bare the privacy of several others. Similar methods could easily be adopted for watching the home life of Indian birds; and there naturally arises the wish for a thousand years in order to give a few decades to the study of bird life in India.