capite paullo latior, postice sensim attenuatus, versus marginem anticum et basin transverse impressus, parte antica transverse striolata; medio disci linea tenuissima lævi elevata; elytra elongata, subdepressa in medio latiora: punctato-striata, punctis minutis; interstitiis inter puncta ad basin elytrorum in tubercula parva (in lineas 4 singuli elytri) elevatis; picea, basi anguste pallidiori, fascia tenui valde irregulari inter basin et medium, altera undulata media, tertia latiori subapicali apiceque ipso aureo-sericeis; pedes castanei, tarsis omnibus, apiceque tibiarum 2 posticarum nigris; corpus infra piceum, metasterno late castaneo, abdomine basi luteo.

12. OMADIUS CLYTIFORMIS. (Pl. XXXVIII. fig. 12).

Elongatus subcylindricus obscure piceus aureo subsericeus; capite postice, apice elytrorum, femoribus basi et infra flavis; elytris sericie aurea reticulatis.

Long. corp. lin. 7.

Hab. apud Singapore.

Præcedentibus longior et subcylindricus. Caput cum oculis prothorace latitudine fere æquale, oculi magni fere contigui; occipite pilis flavis dense obsito, facie griseo-setosa; palpi pallide lutescentes, apice fuscii. Mandibulæ nigræ; antennæ nigræ; articulis 3-10 sensim majoribus triangularibus, 11mo magno compresso e basi ad apicem sensim angustato parum curvato, apice rotundo; prothorax subcylindricus, parallelus, antice et postice linea transversa impressus, supra sub lente tenuissime transversim striolatus, subsericeus, sericie aurea densiore versus angulos anticos: elytra elongata, subcylindrica, picea, opaca, puncto parvo pallido basali intra humeros apiceque pallido fulvo-sericeo, disco, præsertim pone medium, lineis tenuibus sericeis reticulata. Corpus infra nigrum, griseo-setosum; pedes 4 antici coxis albidis, trochanteribus piceis, femoribus infra pallide flavis, supra cum tibiis et tarsis piceo-nigris; pedes 2 postici cum coxis et trochanteribus nigro-piceis, femoribus basi pallide flavis.

February 27, 1855.

Dr. Gray, F.R.S., Vice-President, in the Chair.

The Chairman communicated the following extract from a letter he had received from Francis Brent, Esq. of Folkestone:—"The fishermen bring into Sandgate, Kent, hundreds of immense Conger Eels, which they pick up at sea, off Dungeness. Most of them are dead, but some only nearly so. The frost appears to have destroyed them. Some of them are very large indeed. On Thursday last (the 22nd of February 1855), several *tons* were brought in by the boats, and sent off to the London markets." By the papers it

appears, that the Red Mullet and other fish were found dead about the same time in Southampton Waters.

The following paper was read :—

1. NOTES ON THE HABITS OF SOME INDIAN BIRDS. PART VII.
BY LIEUT. BURGESS.

(Aves, Pl. LXXVIII.)

Subfamily PROMEROPIDÆ.

Genus UPUPA.

UPUPA EPOPS. HOOPOE.

In the upper portion of the Deccan the Hoopoe is a common bird, frequenting gardens and woody spots, and is very partial to sandy plots of ground, particularly outside the walls of villages. In such places the sand is perforated with the conical holes of the ant-lion, and that this is the food sought for by the Hoopoe in these spots, I discovered on opening the gizzard of one, which was of a very soft texture, and contained one large grub and two or three ant-lions. The Hoopoe breeds in the months of April and May, building its nest in holes in the mud walls which surround towns and villages in the Deccan. I transcribe a note taken on 7th May 1850 on the subject :—"To-day a man brought me word that about fifteen or twenty days ago he found a pair of Hoopoes breeding in a hole in the walls of a town; the nest contained two young birds; it was composed of grass, hemp, and feathers. The same man tells me that he has discovered another pair building." The head man of the town of Jintee brought me an egg of the Hoopoe, which has unfortunately been broken. It was of a very pale blue, or rather skim-milk colour. He found a nest in a hole in a fort wall; it was made soft with a few pieces of hemp, and contained three eggs.

Tribe FISSIROSTRES.

Family MEROPIDÆ.

Genus MEROPS.

MEROPS INDICUS. COMMON INDIAN BEE-EATER.

A common bird in the Deccan, but remarkable for its brilliant plumage, and active fly-catching habits. It chooses for its perch the outside twig of a tree, whence it makes its forage amongst the insect tribes that are brought out by the morning beams. The Bee-eater breeds during the months of April and May, laying its eggs in holes in banks. On the 13th May 1850, I found a pair of these birds breeding in a hole in a bank; the hole was more than an arm's length in depth. At the bottom of it I found three young birds, one very small, with scarcely any feathers on it; another somewhat larger, and the third of considerable size and pretty well fledged. There was no nest.

That birds of this genus migrate, I had a convincing proof when returning to England in 1852. When about half way between Bombay and Aden, on the evening of either the 8th or 9th May, a large flock of Bee-eaters was observed fluttering about the ship, some three or four of which were caught after dusk, when they had settled on the ropes and shrouds. I obtained three or four for the purpose of preserving their skins, but in the confusion occasioned by a shower they were unfortunately thrown overboard. They were larger than *Merops indicus*.

Family HALCYONIDÆ.

Genus HALCYON.

HALCYON SMYRNENSIS.

This and the black and white Kingfishers are the most common of their tribe in the Deccan, frequenting almost every stream and nullah. The former breeds during the month of May in holes in the banks of rivers, laying as many as seven eggs. They are of a beautiful pinky tinge, owing to the colour of the yolk showing through the thin delicate shell. The egg is about the size of that of the little Indian Owl (*Noctua indica*).

Family CAPRIMULGIDÆ.

Genus CAPRIMULGUS.

Of the eggs of these birds, of which there appear to be several varieties in India, I merely subjoin a note made by Mr. Jerdon from Mr. Elliott's notes. He states, that he once found the eggs of the common species, two in number, placed on the ground without any nest. They were pink, spotted with brown.

Family HIRUNDINIDÆ.

Genus CYPSELUS.

CYPSELUS AFFINIS. WHITE-RUMPED SWIFT*.

I should certainly say that this is a common bird in the Deccan, about the city of Ahmednuggur. I have seen their nests crowded together under the roofs of old buildings, choultries and temples, and obtained the nest and eggs from a rock in the range of hills about twelve miles from Ahmednuggur, on the road to Aurungabad. This nest was obtained on 21st September 1849. It was built of mud and lined with grass, and contained two white eggs. The eggs are considerably elongated in form.

CYPSELUS PALMARUM, Hardw. BALASIAN SWIFT.

This Swift, according to General Hardwicke, builds its nest on the

* This Swift builds twice during the year; I obtained a nest and eggs in September, and also found a nest with young birds in April.

leaf of the palm. Dr. Jerdon says that it "is common in all the districts of India, except on the bare table-land." I have, however, never met with its nest or eggs.

Genus *HIRUNDO*.

HIRUNDO FILIFERA, Stephens.

This very handsome Swallow breeds in old temples and under projecting stones in wells and banks of streams. On 28th January 1850, I found the nest of this species built in an old well under a large stone, near the water; the nest was not domed, but open, and the young ones, three in number, exposed to view. On 1st April 1851, I took an egg out of a nest of this Swallow; the nest contained three. The old birds began building about 15th March; the nest was composed of mud, lined with a few fibrous roots and feathers; it was built under a stone in the bank of a stream. The egg is $\frac{8}{10}$ ths of an inch in length, by rather more than $\frac{5}{10}$ ths in width; white, spotted with two shades of red-brown, the spots forming a broken belt round the larger end.

Order *RASORES*.

Family *PAVONIDÆ*.

Genus *PAVO*.

PAVO CRISTATUS. COMMON PEAFOWL.

Peafowl abound in the jungles clothing the slopes of the Ghauts, and in some wooded districts in the interior. In the Deccan, in the wooded hilly portions of the districts of Jamkhair and Scogao they were plentiful, and a remarkably pretty sight it was to see them stalking about near the grain stacks, or running along the bushy banks of the nullahs. They are wary birds, and lead the sportsman a good chase when once they take to the low spurs of the hills, up which they run with incredible swiftness. The best plan to secure them is to wait for their roosting time, under the trees to which they resort. Thick mango trees appear to be their favourite resting-places. Peafowl breed at the end of the monsoon, in the months of September and October, laying, I am told, from three to five eggs, of a buffy white colour, 2 inches and nearly $\frac{6}{10}$ ths in length, by 2 inches and nearly $\frac{1}{10}$ th in width. The nest is said to be composed of grass, and formed on the ground amongst bushes.

Genus *GALLUS*, Briss.

GALLUS SONNERATII, Temm.

As I have not been fortunate enough to obtain the eggs of this jungle fowl, I have again recourse to my friend Dr. Jerdon's notes. He says, "I once found the eggs of this fowl, seven in number, on

the ground in dense jungle at the foot of the Neilgherries. They were of a light pinkish-cream colour."

FAMILY TETRAONIDÆ.

GENUS TETRAO.

SUBGENUS PTEROCLES.

PTEROCLES EXUSTUS. COMMON WHISTLING GROUSE.

This Grouse is common in the open plains of the Deccan, flying in flocks, and, as Colonel Sykes has remarked, announces its approach by its peculiar and piercing cry. I believe that this Grouse breeds during the greater part of the year. Eggs of this species (I believe) have been brought to me from the month of December to May. The Common Whistling Grouse lays three eggs in a slight hollow on the bare ground, and the colour of the eggs so much assimilates with that of the sandy ground on which they are laid, that it is very difficult to find them. The egg sent (Pl. LXXVIII.) is, I believe, the egg of this species. It measures $1\frac{6}{10}$ ths of an inch in length, and 1 inch and rather more than $\frac{1}{10}$ th in width, and is of a stone colour, thickly spotted and blotched with grey and olive-brown. I have in my collection several eggs of the Sand Grouse, which vary much in their size and markings.

PTEROCLES QUADRICINCTUS. PAINTED WHISTLING GROUSE.

This handsome Grouse frequents the low stony hills so common in the Deccan. It is not nearly so common as the last mentioned. I succeeded in getting two or three pairs, by waiting for them at a piece of water whither they used to come at dusk to drink. This Grouse most probably breeds at the same time and lays the same number of eggs as *P. exustus*. Many eggs of birds of the subgenus *Pterocles* were brought to me by the people in the districts, but as they are not generally very accurate observers, and call both *P. exustus* and *P. quadricinctus* by one common name, they could not tell me to which they belonged; but from my own observations, and the notes of Dr. Jerdon, I believe the egg sent with this paper is that of *P. quadricinctus*. Dr. Jerdon says, "I have lately got the eggs of this species, also very similar to the other, but rather smaller, and with the spots fewer and larger."

GENUS PERDIX.

PERDIX PICTA.

I met with the Painted Partridge in the grassy valleys near and amongst the Western Ghats near Nassick, in the thickly planted and rich gardens, and in one of the districts between the Godavery and the Bheema rivers. In the latter district the Shikaries brought me several pairs alive. Its very peculiar cry is heard at a considerable distance. When out shooting in a valley amongst the Ghats, I saw one calling when perched on the low stump of a tree. Dr.

Jerdon says, "It breeds during the monsoon, lays six or seven eggs of a smoky bluish-white colour, of an oval form, much depressed at the thick end."

Subgenus *FRANCOLINUS*.

FRANCOLINUS PONTICERIANUS. COMMON PARTRIDGE of India.

This Partridge is found amongst bushes and underwood, but is particularly fond of thick grassy hedges round garden plantations. It is found either singly or in pairs. The Grey Partridge breeds during the months of February and March, laying its eggs, seven in number, in grassy spots, hedgerows, and amongst bushes. The egg is of a rich stone colour, 1 inch and $\frac{5}{10}$ ths in length, by 1 inch and $\frac{1}{10}$ th in width, but they vary considerably in colour and size. This Partridge is by no means a shy bird, but, on the contrary, appears to prefer fields and gardens near towns and villages, to less frequented spots. By some it is called the Scavenger Partridge, but I believe there are no grounds for such a term being applied to it; its flesh is very fair eating. The crop of one which I shot was full of bajocce and small seeds.

FRANCOLINUS SPADICEUS. SPUR-FOWL.

I procured a specimen of the Spur-fowl on the Ghauts at Khanda. It was flushed in a garden, and betook itself to a tree in which I shot it. Its gizzard contained a quantity of earth, some small stones, and small brown seeds. I was informed by a Shikarie that they breed in the months of February and March in thick jungles, making their nests on the ground or in thick close bushes, and laying three white eggs.

Subgenus *COTURNIX*.

I herewith forward an egg, in itself a bad specimen, but the only one I was able to procure, and which I believe to belong either to *C. dactylisonans*, the large grey Quail, or to *C. textilis* (Temm.). I believe the egg to be that of the latter, as if *C. dactylisonans* be identical with the English Quail, the egg should be of a yellowish or dull orange-coloured white, blotched or speckled with umber-brown, whereas the egg now sent is of uniform buff, merely spotted and discoloured by a long exposure to wet.

COTURNIX ARGOONDAH (Sykes). ROCK QUAIL.

This pretty little Quail, as its name implies, is an inhabitant of stony hills and bushy sides of streams and nullahs. It lives in bevvies, and is to be met with in company with the grey and black-breasted Quail. The Rock Quail breeds generally during the months of November and December, but I have had its eggs brought to me as late as March, and have procured a young bird well fledged as early as 20th November. It does not, I believe, lay more than four eggs, as on three different occasions I have had that number brought to me, and on a fourth, four young ones just fledged were brought

to me when out quail-shooting. The young were covered with down, and had the appearance of being powdered. The egg of this Quail is of a pale buff colour, 1 inch and $\frac{1}{10}$ th in length, by $\frac{8}{10}$ ths of an inch in width.

I take this opportunity of bringing to the notice of the members of this Society distinguishing marks between the Rock Quail and the Grey and Black-breasted Quail, and of proposing that the former species should not be confounded with the two last. The distinguishing marks of the former, the Rock Quail, are the stoutness and depth of the beak in proportion to its length, the much more rounded form of the wing, the secondaries and tertials being much more equal in size with the primaries than those of the Grey and Rain Quail; the much more defined scaly protection of the legs and feet in the Rock Quail, and what I believe the most distinguishing mark, the smaller number of eggs laid by the Rock Quail. I believe that the Grey and Rain, or Black-breasted Quail, lay *eight or nine eggs*, the Rock Quail not more than *four*.

March 13, 1855.

Dr. Gray, F.R.S., Vice-President, in the Chair.

The following papers were read:—

1. NOTES ON THE HABITS OF SOME INDIAN BIRDS. PART VIII.
BY LIEUT. BURGESS.

Family STRUTHIONIDÆ.

Genus OTIS.

OTIS NIGRICEPS (Vigors). BLACK-HEADED BUSTARD.

This fine Bustard is found in flocks, varying in size, in the open plains of the Deccan, preferring the dry grassy and stony grounds to others. It grows to a large size; one fine male which I measured was 7 feet across the wings, and 46 inches from the tip of the beak to the end of the tail. This Bustard may almost be said to breed all the year round. I have had an egg brought to me in February, another on the 4th May, containing a young bird. A gentleman on the Revenue Survey told me that he had seen a young Bustard, covered with down, in the early part of October. I have had a young bird brought to me late in November, as well as eggs in November and December. The female generally lays but one egg. A. F. Davidson, Esq., Superintendent of the Ahmednuggur Revenue Survey, told me a curious habit of the male Bustard. He says, "About breeding time the male is fond of mounting some elevated spot, and then strutting about with the tail erected and spread, the wings drooping,