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 Querquedula, 712.
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 Rhamphastus, 715, 721.
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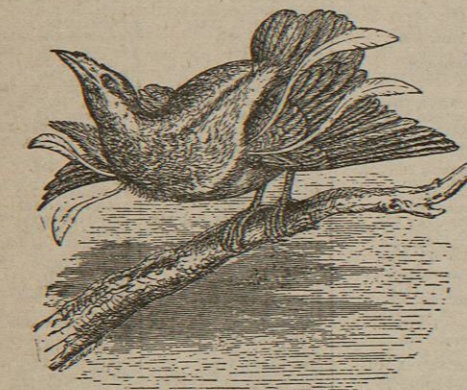
skull, and the skin is then dried in a smoky hut. The Great Emerald Bird, so far as yet known, is only found in the Aru Islands. The Lesser Bird of Paradise (*Paradisaea minor*), though smaller in size and somewhat less brilliant in plumage, in other respects closely resembles the preceding species. It is also more common, and much more widely distributed, being found throughout New Guinea and the neighbouring islands. Its plumes are those most generally used as ornaments for ladies' head-dresses. It has been brought alive to Europe, and has been known to live for two years in the gardens of the Zoological Society of London. Both species are omnivorous, feeding voraciously on fruits and insects. They are strong, active birds, and are believed to be polygamous. The King Bird of Paradise (*Cicinnurus regius*) is one of the smallest and most brilliant of the group, and is specially distinguished by its two middle tail feathers, the ends of which alone are webbed, and coiled into a beautiful spiral disc of a lovely emerald green. In the Red Bird of Paradise (*Paradisaea rubra*) the same feathers are greatly elongated and destitute of webs, but differ from those in the other species, in being flattened out like ribbons. They are only found in the small island of Waigion off the coast of New Guinea. Of the Long-billed Paradise Birds (*Epimachidae*) the most remarkable is that known as the "Twelve-wired" (*Seleucidus alba*), its delicate yellow plumes, twelve of which are transformed into wire-like bristles nearly a foot long, affording a striking contrast to the dark metallic tints of the rest of its plumage. Like the *Paradisaea* they feed on insects and fruits.

BIRKBECK, GEORGE, an English physician and philanthropist, born at Settle in Yorkshire in 1776. He early evinced a strong predilection for scientific pursuits; and in 1799, after graduating as doctor of medicine, he was appointed to the chair of natural philosophy at the Andersonian Institution of Glasgow. In the following year he delivered, for the benefit of the working-classes, a gratuitous course of scientific lectures, which were continued during the two following years and proved eminently successful. He removed to London in 1804, and there he endeavoured to prosecute his philanthropic schemes, at first without much encouragement, but ultimately with marked success. In 1827 he contributed to found the Mechanics' Institute, his coadjutors being Bentham, Wilkie, Cobbett, and others. He was appointed director of the institute, which he had originally endowed with the sum of £3700, and held the office till his death in December 1841.

BIRKENHEAD, a seaport, market-town, extra-parochial district, township, and parliamentary borough, in the hundred of Wirral and west division of Cheshire, England. It is situated on the western bank of the Mersey, directly opposite Liverpool. It is of considerable antiquity, its history dating from 1150, when a priory was founded in honour of St Mary and St James by the third baron of Dunham Massey, and had considerable endowments. The priors sat in the parliaments of the earls of Chester, and enjoyed all the dignities and privileges of palatinate barons. A fine crypt and some interesting ruins of the priory still exist. From a comparatively obscure fishing village Birkenhead has become a large and important town, with a rapidity truly marvellous. The inhabitants numbered only 200 in 1821; in 1831 they were 2569; the following table shows the increase since 1841:—

Year.	Population.	Dwelling Houses.	Rateable Value.
1841	8227	1466	£44,000
1851	25,000	4148	114,301
1861	37,796	5239	150,827
1871	45,418	7511	219,011
1875	(estim.) 52,000	8000	228,909

BIRDS OF PARADISE, a group of Passerine Birds inhabiting New Guinea and the adjacent islands, so named by the Dutch voyagers in allusion to the brilliancy of their plumage, and to the current belief that, possessing neither wings nor feet, they passed their lives in the air, sustained on their ample plumes, resting only at long intervals suspended from the branches of lofty trees by the wire-like feathers of the tail, and drawing their food "from the



Standard Wing Bird of Paradise (*Semioptera wallacei*).

dews of heaven and the nectar of flowers." Such stories obtained credence from the fact that so late as the year 1760, when Linnæus named the principal species *apoda*, or "footless," no perfect specimen had been seen in Europe, the natives who sold the skins to coast traders invariably depriving them of feet and wings. The birds now usually included under this name belong to two distinct families, the *Paradisæidae* and the *Epimachidae*, the former or true Birds of Paradise being closely allied to the Crows, the latter or Long-billed Paradise Birds being usually classed, from the form and size of their bills, with the Hoopoes. Both families occupy the same geographical area, and are alike distinguished by the enormous development of certain parts of their plumage. Of the true birds of paradise, the largest is the Great Emerald Bird (*Paradisaea apoda*), about the size of the common jay. Its head and neck are covered

with short thick-set feathers, resembling velvet pile, of a bright straw colour above, and a brilliant emerald green beneath. From under the shoulders on each side springs a dense tuft of golden-orange plumes, about 2 feet in length, which the bird can raise at pleasure, so as to enclose the greater part of its body. The two centre tail feathers attain a length of 34 inches, and, being destitute of webs, have a thin wire-like appearance. This splendid plumage, however, belongs only to the adult males, the females being exceedingly plain birds of a nearly uniform dusky brown colour, and possessing neither plumes nor lengthened tail feathers. The young males at first resemble the females, and it is only after the fourth moulting, according to A. R. Wallace, who recently studied those birds in their native haunts, that they assume the perfect plumage of their sex, which, however, they retain permanently afterwards, and not during the breeding season only as was formerly supposed. At that season the males assemble, in numbers varying from twelve to twenty, on certain trees, and there disport themselves so as to display their magnificent plumes in presence of the females. Wallace in his *Malay Archipelago*, vol. ii., thus describes the attitude of the male birds at one of those "sacaleli," or dancing parties, as the natives call them; "their wings," he says, "are raised vertically over the back, the head is bent down and stretched out, and the long plumes are raised up and expanded till they form two magnificent golden fans striped with deep red at the base, and fading off into the pale brown tint of the finely-divided and softly-waving points; the whole bird is then overshadowed by them, the crouching body, yellow head, and emerald green throat, forming but the foundation and setting to the golden glory which waves above." It is at this season that those birds are chiefly captured. The bird-catcher having found a tree thus selected for a "dancing party," builds a hut among the lower branches in which to conceal himself. As soon as the male birds have begun their graceful antics, he shoots them, one after the other, with blunt arrows, for the purpose of stunning and bringing them to the ground without drawing blood, which would injure their plumage; and so eager are those birds in their courtship that almost all the males are thus brought down before the danger is perceived. The natives in preparing the skins remove both feet and wings, so as to give more prominence to the commercially valuable tuft of plumes. They also remove the

Birkenhead began to develop itself as a market-town in the year 1833, when an Act was obtained for paving, lighting, watching, cleansing, and improving the town, and for regulating the police and establishing a market. By this Act the Improvement Commissioners were originally constituted, and at that time included the mayor, bailiffs, and four aldermen of Liverpool. Immediately after the passing of this Act the town made rapid progress. The principal streets were laid out on a regular plan, intersecting each other at right angles. A line of tramway, the first laid in England, affords every facility of street communication. Hamilton Square, which occupies the summit of the rising ground near the river, forms the basis or starting point for all the parallel and rectangular lines of streets. The houses of the square are four stories in height, with stone fronts, the centres and ends of each terrace being relieved or ornamented with columns and porticos in the Tuscan order of architecture.

Birkenhead has (exclusive of the out townships) nine churches belonging to the Established Church. St Mary's, built in 1821 by Mr. F. R. Price, late lord of the manor, is in the Decorated Gothic style of architecture, with a well-proportioned tower and spire. The churchyard includes the burial ground and ruins of the ancient priory and chapel of St Mary. In addition to the Established churches there are twenty-four places of worship belonging to various Nonconforming denominations, viz., five Presbyterian, three Independent or Congregational, 2 Baptist, four Wesleyan, one Primitive Methodist, one Society of Friends, two Plymouth Brethren, three Roman Catholic, one Catholic and Apostolic, two Unitarian. Many of these buildings are fair examples of Gothic and classic architecture. St Aidan's Theological College, in connection with the Established Church, occupies a fine and elevated site adjoining the western boundary of Cloughton. It is a handsome building in the Tudor style of architecture. There are seven public elementary schools in connection with the Established churches, and seven in connection with other religious bodies. There is also a first-class proprietary school, conducted on the model of the great public schools, besides several private academies.

There are several public buildings in Birkenhead worthy of notice. The market-hall is a large and commodious building, 430 feet long and 130 feet wide, with substantial and lofty vaults extending under its entire area. It was opened in 1845, and built at a cost of £35,000. The public slaughter-houses in Jackson Street, belonging to the Birkenhead Commissioners, form an extensive pile of buildings; they were erected in 1846 at a cost, exclusive of the site, of about £11,000, and were the first public slaughter-houses of any extent erected in England. The town water-works also belong to the Birkenhead Commissioners, and consist of two pumping stations, the wells of which yield an aggregate supply of about 2½ million gallons in twenty-four hours. The town-hall in Hamilton Street is a one-story building, and formed when first erected the front of the old market-hall; it contains a police court, fire-engine station, and chief bridewell; there are, besides, two branch bridewells. Among other buildings are the post-office in Conway Street, the borough hospital, and the School of Art, also in Conway Street, both erected by the late Mr John Laird, M.P., and a free library in Hamilton Street. The large and commodious industrial schools in Corporation Road were built at the cost of Sir Wm. Jackson, Bart., as a memorial to the late Prince Consort. The Music Hall and the Queen's Hall are situated in Cloughton Road. There is also a neat and commodious theatre and opera-house in Argyle Street.

Birkenhead Park, opened in 1847, occupies 190½ acres of ground, and was laid out at a cost (including the land) of