legislation in favour of Reformation principles. Though England was in a somewhat unsettled state, this did not prevent him from planning an expedition against Scotland, on account of that power refusing to fulfil a former treaty by which a marriage had been agreed upon between Mary Queen of Scots and Edward. He defeated the Scots at the battle of Pinkie Cleugh, September 10, 1547, and next year captured Haddington; but, on account of growing dissensions at home, he was compelled to give up all further attempts against Scottish independence. His brother, who had been created Lord Seymour of Sudeley and made lord admiral of England, was suspected of being at the head of a plot to overturn his authority, and with something of bravado admitted as much as was sufficient to criminate himself, although he refused to answer in regard to the more serious charges. In the House of Lords a bill was framed against him which passed the House of Commons almost unanimously, and, it being assented to by the king shortly afterwards, he was executed on Tower Hill, March 20, 1549. In the following summer the distress consequent on the depreciation of the currency and the wasteful expenditure of the court awakened a general discontent, which in different parts of the kingdom broke out into open insurrection. The protector, instead of repressing the rebellion by vigorous measures, gave considerable concessions to the demands of the populace, his sympathy with whom he openly admitted. By such an avowal he necessarily alienated the nobility, and they speedily planned his overthrow. The council, headed by Dudley, earl of Warwick, declared against him, deposed him, and imprisoned him in the Tower, October 14, 1549. He regained his freedom shortly afterwards, but a plot which he was concocting for the overthrow of Warwick having prematurely come to light, he was again arrested in 1551, and being convicted of high treason, he was executed on Tower Hill, January 22, 1552. The king, who, except where his religious convictions were concerned, was a mere puppet in the hands of the faction which at any time was paramount, yielded his assent to the execution, apparently without any feelings of compunction. Warwick, some time before this created duke of Northumberland, now exercised absolute sway over the affairs of the kingdom, but he was hated by the populace, and distrusted even by the friends who had raised him to power. He found it necessary, therefore, to take further steps to guarantee the stability of his authority. The king was dying rapidly of consumption, and his sister Mary being heir to the throne, Northumberland could not hide from himself the probability that his own overthrow would follow her accession. He therefore took advantage of the king's strong religious prejudices to persuade him to make a will, excluding Mary and Elizabeth from the succession to the throne on the ground of their illegitimacy, and nominating as his successor Lady Jane Grey, who was married to the duke's eldest son. The arbitrary urgency of Northumberland and the religious obstinacy of Edward prevailed over the strong objections of the judges, and letters patent being drawn out in accordance with the king's wishes, passed under the Great Seal, and were signed by the chief nobles, including, although only after repeated endeavours to alter Edward's determination, Cranmer, archbishop of Canterbury. Edward died July 4, 1553. There were some suspicions that his death had been hastened by Northumberland, but although his malady showed at last some symptoms of poisoning, it is now believed that these were caused by accidental administrations of over-doses of mineral medicine. The early age at which Edward VI. died makes it impossible to form a confident estimate of his character and abilities. The exceptional talent which he manifested in certain respects may have been due largely to the precocity caused by disease. He was undoubtedly highly accomplished, but there is some reason for suspecting that he was defective in force of character, and that he was too much of a recluse to have become a successful ruler. His own writings show that he was fully aware of the abuses which had crept into the administration of affairs, and that he was conscientiously desirous that they should be remedied; but they leave it uncertain whether he had the practical sagacity to discern the true causes of these evils, and whether he had sufficient energy to remedy them even had he known the proper remedies.

The *Writings of Edward VI.* (including his Journal), *edited with Historical Notes and a Biographical Memoir by John Gough Nichols*, have been printed in two vols. by the Roxburgh Club (London, 1857). See also Hayward's *Life of Edward VI.* and Froude's *History of England*, vols. iv. and v.

EDWARD THE BLACK PRINCE (1330–1376), son of Edward III. of England, and of Philippa, was born at Woodstock, June 15, 1330. In 1337 he was created duke of Cornwall. He was appointed guardian of the kingdom during the king's absences in France in 1338, 1340, and 1342, and on his return in 1343 was created prince of Wales. In 1346 he accompanied his father's fourth expedition against France, when the division led by him bore the chief brunt in the battle of Crécy. In 1350 he shared with his father the glory of defeating the Spanish fleet at the battle of "L'Espagnols-sur-Mer." In 1355 he commanded the principal of the three armies raised by the English for the invasion of France, and landing at Bordeaux captured and plundered the chief of its southern towns and fortresses. In the year following he gained the great victory of Poitiers, and took King John prisoner; and returning to England in 1357, he entered London in triumphant procession, accompanied by his illustrious captive. During the pause of arms which followed the treaty of Bretigny he was married to his cousin Joan, commonly called the Fair Maid of Kent, of whom he was the third husband. This event took place in 1361. Shortly after, he was created duke of Aquitaine, and he set sail for his new dominions in February 1363. Here his life was spent in comparative quietude until Pedro, the deposed monarch of Castile, sought his assistance to remount the Spanish throne. Trusting to Pedro's promises to defray the cost of the expedition, the Black Prince agreed to his request. He marched across the Pyrenees, defeated Don Henry with great slaughter at the battle of Navarette, and two days afterwards, along with Don Pedro, entered Bourges in triumph. Don Pedro, however, speedily forgot the promise of payment which his distresses had induced him to make, and after the Black Prince had waited some months in vain for its fulfilment, he was compelled to return to his duchy, having lost four-fifths of his army by sickness alone. To defray his expenses he found it necessary to impose on Aquitaine a hearth tax, and the Gascon lords having complained to the king of France, he was summoned in 1369 to Paris to answer the complaint. He replied that he was willing and ready to come, but it would be with "helm on head, and with 60,000 men." War was consequently again declared between England and France. Two simultaneous invasions of English territory were planned by the French—the one under the duke of Anjou, the other under the duke of Berri. The latter laid siege to Limoges, which by the treachery of its bishop basely surrendered. Enraged almost to madness, the prince swore by the "soul of his father" that he would recover the city, and after a month's siege fulfilled his oath. Surprising the garrison by the springing of a mine, he carried the city by assault, and massacred without mercy every man, woman, and child found within its walls. This terrible act of cruelty, attributable, it is

only charitable to suppose, partly to the irritation of ill health, and possibly to chagrin arising from the presentiment that the English power in France was now on the wane, is the one blot on his fair fame. It closed also his military career, for he was compelled in 1371, by the advice of his physicians, to return to England. From this time his constitution was utterly broken, but he lingered on to witness the loss of his duchy to England, and also to originate the measures of the "Good Parliament," although his death prevented their completion. He died at Westminster, 8th June 1376. He was buried at Canterbury Cathedral, where his mailed effigy may still be seen.

See Longman's *Life and Times of Edward III.*; *Edward III.* by Rev. W. Warburton, M.A.; Pauli's *Aufsätze zur Englischen Geschichte* (Edward. Der Schwarze Prinz), Leipsic, 1869; and Creighton's *Edward the Black Prince.*

EDWARDES, SIR HERBERT BENJAMIN (1819–1868), major-general in the East Indian army, one of the noblest names on the roll of the soldier-statesmen of the British Indian empire, was born at Frodesley, in Shropshire, November 12, 1819. The family was of high standing. Sir Herbert's father was Benjamin Edwardes, rector of Frodesley, and his grandfather Sir John Edwardes, baronet, eighth holder of the title, which was conferred on one of his ancestors by Charles I. in 1644. After receiving his early education at a private school, he was sent to King's College, London, to complete his studies. Through the influence of his uncle, Sir Henry Edwardes, he was nominated in 1840 to a cadetship in the East India Company; and on his arrival in India, at the beginning of 1841, he was posted as ensign in the First Bengal Fusileers. He remained with this regiment about five years, and during this period gave proof of that "great capacity for taking pains" which is the characteristic of genius. He mastered the lessons of his profession, obtained a good knowledge of Hindustani, Hindi, and Persian, and attracted attention by the political and literary ability displayed in a series of letters which appeared in the *Delhi Gazette.* In November 1845, on the breaking out of the first Sikh war, Edwardes was appointed aide-de-camp to Sir Hugh (afterwards Viscount) Gough, then commander-in-chief in India. On the 18th of the following month he served at the battle of Moodkee, and was severely wounded. He soon recovered sufficiently to resume his duties, and fought by the side of his chief at the decisive battle of Sobraon (February 10, 1846), which closed the war. He was soon afterwards appointed third assistant to the commissioners of the Trans-Sutlej Territory; and in January 1847 was named first assistant to Sir Henry Lawrence, the resident at Lahore. Lawrence became the great exemplar of the young hero, who looked up to him with the affectionate reverence of a disciple and a son, and in later years was accustomed to attribute to the influence of this "father of his public life" whatever of great or good he had himself achieved. He took part with Lawrence in the suppression of a religious disturbance at Lahore in the spring of 1846, and soon afterwards assisted him in reducing, by a rapid movement to Jummoo, the conspirator Imaum-ud-din. In the following year a more difficult task was assigned him,—the conduct of an expedition to Bunnoo, a tributary Afghan district, in which the people would not tolerate the presence of a collector, and the revenue had consequently fallen into arrear. By his rare tact and fertility of resource, Edwardes succeeding in completely conquering the wild tribes of the valley without firing a shot, a victory which he afterwards looked back upon with more satisfaction than upon other victories which brought him more renown. His fiscal arrangements were such as to obviate all difficulty of collection for the future. In the spring of 1848, in consequence of the murder of Mr Vans Agnew and Lieutenant Anderson at Mooltan, by order of the Dewan Moolraj, and of the raising of the standard of revolt by the latter, Lieutenant Edwardes was authorized to march against him. He set out immediately with a small force, occupied Leia on the left bank of the Indus, was joined by Colonel Cortlandt, and, although he could not attack Mooltan, held the enemy at bay and gave a check at the critical moment to their projects. He won a great victory over a greatly superior Sikh force at Kineyree (June 18), and received in acknowledgment of his services the local rank of major. In the course of the operations which followed near Mooltan, Edwardes lost his right hand, by the explosion of a pistol in his belt. On the arrival of a large force under General Whish the siege of Mooltan was formed, but was suspended for several months in consequence of the desertion of Shere Singh with his army and artillery. Edwardes distinguished himself by the part he took in the final operations, begun in December, which ended with the capture of the city, January 4, 1849 For his services he received the thanks of both houses of parliament, was promoted major by brevet, and created C.B. by special statute of the order. The directors of the East India Company conferred on him a gold medal and a good service pension of £100 per annum. After the conclusion of peace Major Edwardes came to England for the benefit of his health, married during his stay there, and wrote and published his fascinating account of the scenes in which he had been engaged, under the title of *A Year on the Punjab Frontier in* 1848–1849. His countrymen gave him fitting welcome, and the university of Oxford conferred on him the degree of D.C.L. In 1851 he returned to India and resumed his civil duties in the Punjab under Sir Henry Lawrence. In November 1853, he was entrusted with the responsible post of commissioner of the Peshawur frontier, and this he held when the Mutiny or Sepoy War of 1857 broke out. It was a position of enormous difficulty, and momentous consequences were involved in the way the crisis might be met. Edwardes rose to the height of the occasion. He saw as if by inspiration the facts and the need, and by the prompt measures which he adopted he rendered a service of incalculable importance, by effecting a reconciliation with Afghanistan, and securing the neutrality of the Amir and the tribes during the war. So effective was his procedure for the safety of the frontier that he was able to raise a large force in the Punjab and send it to co-operate in the siege and capture of Delhi. In 1859 Edwardes once more came to England, his health so greatly impaired by the continual strain of arduous work that it was doubtful whether he could ever return to India. During his stay he was created K.C.B., with the rank of brevet colonel; and the degree of LL.D. was conferred upon him by the university of Cambridge. Early in 1862 he again sailed for India, and was appointed commissioner of Ambala and agent for the Cis-Sutlej states. He had been offered the governorship of the Punjab, but on the ground of failing health had declined it. In February 1865, he was compelled finally to resign his post and return to England. A second good service pension was at once conferred on him: in May 1866, he was created K.C. of the Star of India, and early in 1868 was promoted major-general in the East Indian army. It was known that he had been for some time engaged on a life of Sir Henry Lawrence, and high expectations were formed of the work; but he did not live to complete it. He died in London, December 23, 1868. Sir Herbert Edwardes, great in council and great in war, was singularly beloved by personal friends, and was generous and unselfish to a high degree. He was also a man of deep religious convictions,

and naturally desired and hoped for the evangelization of India. But his zeal was under the restraint of knowledge, and he knew how to reconcile private aspiration with public duty. Like Sir John Lawrence, he advocated toleration for the native religious systems, and at the same time deprecated Government support of them in any way. "India," says a writer in the *Pall Mall Gazette*, "has produced many great men, some of whom have done more for their country, but there were few upon whom the stamp of genius was more visibly impressed than upon Herbert Edwardes." The life of Sir Henry Lawrence was completed by Mr Herman Merivale, and was published in 1873.

EDWARDS, BRYAN (1743–1800), the well-known historian of the West Indies, was born at Westbury, in Wiltshire, on the 21st of May 1743. His father died in 1756, and his education and maintenance were undertaken by his maternal uncle, Zachary Bayly, a wealthy West Indian merchant. He had been placed by his father at the school of a dissenting clergyman in Bath, where he received a careful training in English composition; his uncle's agent, however, removed him to a French boarding school, on discovering that he had received no instruction in classics. Edwards went out to Jamaica to join his uncle, in whom he seems to have found everything he could desire,—the most enlightened mind, the sweetest temper, and the most generous disposition. To this was added a truly paternal regard for himself, which was returned with all the warmth of filial affection. His uncle, finding him possessed of literary talents, but deficient in classical acquirements, engaged a Mr Teale, a clergyman and formerly master of a free grammar-school, as resident tutor for him. The relationship proved a very agreeable one to both teacher and pupil, though the training imparted was somewhat fragmentary. A large proportion of their time was spent in tasting the beauties of Dryden and Pope, and in laughing at the comic sallies of Molière. Edwards, upon the whole, acquired during this period small Latin and less Greek; but he continued to practise composition both in prose and verse, and the two companions sent occasional pieces to the colonial newspapers. On the death of his uncle Edwards succeeded to his property; and, in 1773, he became heir to the much larger estate of Mr Hume, also of Jamaica. In 1784 he published *Thoughts on the Proceedings of Government respecting the Trade of the West Indian Islands with the United States of America*. This was followed by a speech delivered at a free conference between the Council and Assembly at Jamaica, held November 25, 1789, on the subject of Wilberforce's propositions concerning the slave trade. It was in 1793, however, that he published his great work, on which he had been many years engaged, entitled *History, Civil and Commercial, of the British Colonies in the West Indies*, 2 vols. 4to. On the question of slavery and the slave trade he naturally took the planter's view, but he expressed himself with moderation and candour. In 1796 he published, in one volume quarto, a *History of St Domingo*, which had then excited a deep interest, on account of the insurrection of the slaves, and the consequent establishment of an independent negro government. In 1801 a new edition of both these works was published, in three vols. 8vo, under the general title of *History of the West Indies*. A fifth edition issued from the press in the year 1819. When Mungo Park returned from his celebrated journey in Africa, Edwards, from his oral information, drew up a report of it, which was submitted to the African Society, and published in their *Transactions*. Park afterwards incorporated the greater part of this into the general narrative of his *Travels*, in preparing which he availed himself much of the assistance and suggestions of Edwards. After a lengthened residence in Jamaica Edwards returned to England, and in 1796 became M.P. for the borough of Grampound, which he continued to represent till his death, July 15, 1800. He left a short narrative of his life, which was prefixed to the edition of his history published in 1801.

EDWARDS, GEORGE (1693–1773), a celebrated antiquarian and ornithologist, was born at Stratford, in Essex, on the 3d April 1693. He was originally apprenticed to a tradesman in Fenchurch Street, London; but obtaining by accident access to a number of books on natural history, painting, astronomy, and antiquities, he lost his inclination for mercantile pursuits, and acquired a desire for foreign travel. In 1716 he visited the principal towns in Holland, and two years afterwards travelled in Norway and Sweden. In 1719 he went to Paris for the purpose of studying its natural history collections, and during his stay in France he made two journeys of a hundred miles each, the first to Châlons in Champagne, and the second on foot to Orleans and Blois. On his arrival in England he closely pursued his favourite study of natural history, applying himself to drawing and colouring such animals as fell under his notice. Birds first engaged his particular attention, and having purchased some of the best pictures of them, he made a few drawings of his own, which were admired by the curious, who encouraged the young naturalist by paying a good price for his early labours. In 1731 he made an excursion to Holland and Brabant, where he collected several scarce books and prints, and had an opportunity of examining the original pictures of several great masters, at Antwerp, Brussels, Utrecht, and other cities. In December 1733, by the recommendation of Sir Hans Sloane, the president of the college of physicians, he was chosen librarian to that body, and had apartments assigned him in the college. Here he had the opportunity of a constant recourse to a valuable library filled with scarce and curious books on the subject of natural history, which he so assiduously studied. By degrees he became one of the most eminent ornithologists in his own or any other country. He published the first volume of the *History of Birds* in 1743, a second volume in 1747, a third in 1750, and a fourth in 1751. In 1758 he continued his labours under a new title, that of *Gleanings of Natural History* A second volume of the gleanings was published in 1760, and a third in 1764. The two works contain engravings and descriptions of more than six hundred subjects in natural history not before described or delineated. He likewise added a general index in French and English, which was afterwards perfected with the Linnæan names by Linnæus himself, who frequently honoured him with his friendship and correspondence. In 1750 he received the gold medal of the Royal Society, given annually on St Andrew's day to the author of any new discovery in art or nature. He was, a few years afterwards, elected fellow of the Royal Society, and of the Society of Antiquaries, London, and also a member of many of the academies of sciences and learning in different parts of Europe. After the publication of his last work, having arrived at his seventieth year, and finding his sight beginning to fail, and his hand losing its wonted steadiness, he retired from public employment to a little house which he had purchased at Plaistow. The conversation of a few select friends, and the perusal of a few select books, were the amusement of the evening of his life; and now and then he made an excursion to some of the principal cities in England, particularly to Bristol, Bath, Exeter, and Norwich. His general health began to fail some years before his death, which took place on the July 23, 1773.

EDWARDS, JONATHAN (1703–1758), the most distinguished metaphysician and divine of America, was the son of the Rev. Timothy Edwards, and of Esther, daughter of the Rev. Solomon Stoddard, of Northampton, and was born at

East Windsor, Connecticut, October 5, 1703. He was the only son in a family of eleven children, of whom four were older than himself. Even in his very early years the religious instruction communicated to him by his parents seems to have engaged a large share of his interest, and to have exercised a strong influence on his character. In a statement of his religious views in youth, he says, "I had a variety of concerns and exercises about my soul from my childhood," and also, "from my childhood up my mind had been full of objections against the doctrine of God's sovereignty" In his eighth or ninth year he experienced, he tells us, "two remarkable seasons of awakening;" but these objections against the doctrine of God's sovereignty continued to trouble him more or less until about his 17th year, "when," he says, "I seemed to be convinced and fully satisfied as to this sovereignty of God, and his justice in thus eternally disposing of men, according to his sovereign pleasure, but never could give an account how or by what means I was convinced, nor in the least imagined at the time, nor a long time after, that there was any extraordinary influence of God's Spirit in it." Until he entered college his education was conducted by his father, with the occasional assistance of his elder sisters. At the age of six he began the study of Latin, and in that language, as well as in Greek and Hebrew, he attained to considerable proficiency. In September 1716 he entered Yale College. He took his B.A. degree in 1720, but with a view to preparation for the ministry he continued his residence at college for two additional years. In 1718 he read Locke on the *Human Understanding*, and it was from its perusal that his intense passion for abstract thought was first kindled. He declared that it had afforded him "far higher pleasure than the most greedy miser finds when gathering up handfuls of silver and gold from some newly discovered treasure." He received licence to preach in 1722, and in August of that year, on the invitation of a number of ministers in New England, he went to preach to the Presbyterians in New York, where he continued eight months. He was invited by the congregation to continue with them permanently, but on account of doubts as to his future usefulness in that particular sphere, he declined their invitation, and returned to his father's house at East Windsor. Here he prosecuted his studies in theology and metaphysics till June 1724, when he was appointed tutor in Yale College. About this time he completed the series of seventy resolutions begun during his preparation for the ministry, and designed to "regulate his own heart and life." No. 11 of these may be mentioned as specially characteristic:—"Resolved, when I think of any theorem in divinity to be solved, immediately to do what I can towards solving it, if circumstances do not hinder." He resigned his tutorship in September 1726, on receiving an invitation from Northampton to become colleague and successor to his grandfather, the Rev. Samuel Stoddard, and in February 1727 he was ordained to that office. In the following July he was married to Sarah, daughter of the Rev. James Pierrepont, of New Haven. He continued at Northampton till June 22, 1750, when, on account of a dispute that had arisen from an attempt on his part to prohibit some of the younger members of his congregation from perusing certain books, which in his opinion were obscene, he found himself compelled to resign his charge. On learning of his resignation some of his friends in Scotland advised him to settle in that country, and he was also invited to a church in Virginia, but he accepted in preference to either invitation the proposals made to him by the "Society in London for Propagating the Gospel in New England," that he should become missionary to the Housatonnuck Indians, who were settled at Stockbridge, Berkshire Co., Massachusetts. The nature of his work now left him in possession of considerable leisure, of which he made use to such advantage that, within the six years of his residence at Stockbridge, he completed four of his principal treatises, including that on the *Freedom of the Will*, which was published in 1754. On account of the fame which this work acquired for him he was in 1757 called to succeed President Burr of Princeton College, New Jersey. He was installed February 16, 1758, but was scarcely spared to enter upon the performance of his duties. On account of the prevalence of small-pox in the neighbourhood, he submitted to inoculation and the disease taking an unfavourable turn, he died on the 28th March. Edwards says of himself that he possessed "a constitution in many respects peculiarly unhappy, attended with flaccid solids, vapid, sizy, and scarce fluids, and a low tide of spirits, often occasioning a kind of childish weakness and contemptibleness of speech, presence, and demeanour." Notwithstanding this unhappy constitution, he was throughout life a laborious student, often prosecuting, pen in hand, his arduous metaphysical researches for thirteen hours daily. As an orator he sometimes held not only the feelings but the intellects of his hearers completely under his sway. The extraordinary influence which he thus exercised was not due to any personal advantages, for even when his oratory was most effective the "contemptibleness of his speech and demeanour" still remained, although it was no longer felt by his hearers, nor to any special excellences of style, for though his language conveyed his meaning without ambiguity, it did so not only without any of that peculiar felicity of arrangement which is usually one of the chief elements of successful oratory, but in a bald, even in a lumbering and awkward, manner. His eloquence was simply intense moral earnestness, expressed in the form of what, in more senses than one, might be called "merciless logic."

His writings present a very remarkable conjunction of apparently contradictory qualities, a conjunction attributable partly to a peculiar combination of natural mental characteristics, and partly to a habit of solitariness which rendered him almost completely ignorant of the dominant tendencies of contemporary thought, and placed him almost beyond the reach of any external influences fitted to aid him in freeing himself from the shackles of past systems. The outstanding features of his character were undoubtedly his sense of reverence and his passion for ratiocination. In one respect these two opposite characteristics combined to produce a harmonious result, namely, to impress him with an almost overwhelming conviction of the claims of duty. His awe of the Supreme Power was in one aspect of such a nature as to seem consistent only with the grossest superstition, but from the very fact that it was the awe of an intellect, within the sphere of logic, so keen and penetrating, it was necessarily a moral awe, an awe which intensified that sense of duty whose requirements his logical faculty revealed with a distinctness which admitted of no fallacy or evasion. It was his overwhelming conviction of duty which gave to his system, theological, moral, and metaphysical, what unity it possesses. That unity is, however, nothing more than seeming; the positive and negative elements are held apart in different spheres; if they were brought into contact the necessary result would be an utterly destructive explosion. The basis of his whole system is the "sovereignty of God;" and of his conviction of God's "sovereignty" he tells us that of how or by what means he arrived at it he could give no account. This mysterious and unaccountable conviction he, however, endeavours to justify by a protracted logical process, without being at all conscious of any incongruity between means and end. This unconsciousness is due to the fact that the strength of his original conviction prevented him from discerning the real difficulties he had to surmount. We have

thus presented to us the spectacle of a mystic endeavouring to expound his belief by a mere process of reasoning, almost mathematical in its cold and definite precision and in its rigour. It is quite possible that his strong prepossessions would in any case have prevented him from estimating at their proper importance the new problems that were beginning to appear on the horizon of contemporary thought, but, so far from having given these problems the attention necessary in order to understand them, he was scarcely aware of their existence. The impulse he received from Locke's *Essay on the Human Understanding* did not lead him to seek full acquaintance with the whole circle of the philosophical speculation of his time,—partly no doubt because his circumstances prevented him from doing so, but partly also because he had a strong bias towards the pursuit of solitary trains of thought. In his essay on the *Freedom of the Will* he confesses having never read Hobbes; and although he mentions in a letter having read one of Hume's works, this would appear to have been subsequent to the publication of the essay on the *Freedom of the Will*, and its perusal does not seem to have impressed him with any idea of its author's exceptional metaphysical ability, for he merely says of it and of some other books, "I am glad of an opportunity to read such corrupt books, especially when written by men of considerable genius, that I may have an idea of the notions which prevail in our country." He was scarcely conscious of the presence of the new influence which was then stirring the stagnant waters of speculation; but it certainly influenced him unconsciously, and compelled him to check his vague unrest by more stedfastly clinging to his old convictions. He succeeded in doing so, but not without the exercise of constant watchfulness, for, apart from any immediate external influence, his strong and eager logical faculty seems often as if bent on carrying him beyond the bounds of traditional opinion, and requires frequently to be pulled up with a certain measure of abruptness.

The theological system of Edwards emphasized all the sterner features of Calvinism and revealed them in strong relief. Calvinism in its original form was founded on extreme statements regarding "God's sovereignty" and "man's depravity by nature," but the inferences implied in these statements are set forth by Edwards in their terrible and repulsive aspects with a thoroughness and a logical completeness not previously attempted. The argument he employs to establish his propositions is unanswerable as against the Libertarians of his time, for he shows conclusively that their plight is, if anything, rather worse than his own; but when he seeks to go beyond this very circumscribed sphere he involves himself in a labyrinth of scholastic quibbling, where all that seems to present itself is only a choice of two evils,—either to remain for ever utterly bewildered by the contradictory paths which open up before him, or by selecting one of them to wander irrevocably beyond the bounds of what he recognized as orthodox. We have an example of this when he endeavours to prove that though men are born utterly depraved, God is not the author of their depravity. His theory is that Adam was originally possessed of two principles,—one which may be called *natural*, being the mere *principles of human nature*, or as it is called in Scripture the *flesh*, and another called the *supernatural* principle, or as in Scripture the *divine nature*. When Adam ate of the tree of forbidden fruit the divine nature was withdrawn from him, and thus his nature became corrupt without God infusing any evil thing into it. "So," says Edwards, "does the nature of his posterity; they come into the world mere flesh, and entirely under the government of natural and inferior principles." Here it will be seen, not only that Edwards appears to very little advantage as a reasoner, but that he is in imminent peril of overthrowing the central position of his own system; for, first, if to represent sin as a merely negative quality in any degree solves the difficulty of God being its author, it does so at the expense of denying to it a real existence; and secondly, to represent men as born into the world "mere flesh" entirely destroys the distinction, so essential to Edwards's system, between "moral and natural inability." He soon, however, escapes back to his old position although not by the way he set out. "If any," he says, "should object to this that, if the want of original righteousness be thus according to an established course of *nature*, then why are not principles of holiness, when restored by divine *grace*, also communicated to posterity, I answer, the divine law and establishments of the Author of nature are precisely settled by Him as He pleaseth, and limited by His wisdom.

The moral theory of Edwards is but a corollary from his theological system. Virtue he places in love or benevolence towards being in general, or more accurately in a "*disposition* to benevolence towards being in general," for he does not mean to affirm that "every virtuous act must have universal existence for its direct and immediate object," but merely that "no affections towards particular persons or beings are of the nature of true virtue, but such as arise from a generally benevolent temper." He shows that this love cannot be primarily a "love of complacence," that is, a love having any regard to excellence in the object, for that "would be going in a circle, and the same as saying that virtue consists in love to virtue," and that it cannot consist in "gratitude, or one being benevolent to another for his benevolence to him," because "this implies the same inconsistence;" consequently that "the first object of a virtuous benevolence is being simply considered, and, if being simply considered, then being in general." There is, however, "a second object of a virtuous propensity of heart, namely, benevolent being, for one that loves being in general will necessarily value good-will to being in general." True virtue must, therefore, chiefly consist in love to God, for "he that has true virtue, consisting in benevolence to being in general, and in benevolence to virtuous being, must necessarily have a supreme love to God both of benevolence and complacence." This theory he applies to support the theological dogma that no one whose virtuous acts are not the result of real conscious love to a personal God can possess any true righteousness, or be in any other moral condition than that of utter depravity. As to the merits of the theory in itself, these are not helped by the form in which it is stated. Being in general, being without any qualities, is too abstract a thing to be the primary cause of love. The feeling which Edwards refers to is not love, but awe or reverence, and, moreover, necessarily a blind awe. Properly stated therefore, true virtue, according to him, would consist in a blind awe of being in general, and a love of complacency to those who possess a blind awe of being in general—only this would be inconsistent with his definition of virtue as existing in God. In reality, as he makes virtue merely the second object of love, his theory becomes identical with that utilitarian theory with which the names of Hume, Bentham, and Mill are chiefly associated; but it is utilitarianism necessarily expressed in very awkward terms, because these are hampered by its derivation from certain theological principles, and its necessary connection with a theological belief. Unlike Hume and Mill, he deduces his theory primarily from certain scholastic propositions regarding God's purpose in the creation of the world. He accepts the Scripture statement that God makes himself his own chief end, and he endeavours by scholastic reasoning to show the "reasonableness" of his doing so. He is, however, unable to proceed a step in his argument without committing himself to such pantheistic statements as that "God's existence, being infinite, must be equivalent to universal existence," and that "the eternal and infinite Being is in effect being in general, and comprehends universal existence." He is, therefore, obliged to confess that "there is a degree of indistinctness and obscurity in the close consideration of such subjects," and to fall back "on revelation as the surest guide in these matters;" although affirming at the same time that, in his endeavours "to discover what the voice of reason is so far as it can go," he has been successful in "obviating cavils insisted on by many."

The fame of Edwards is associated chiefly with his treatise on *The Freedom of the Human Will*. The will is defined by him as that by which the "mind chooses anything." By "determining the will" he means "causing that the act of the will or choice should be thus and not otherwise." And, "with respect to the inquiry, What determines the will?" he answers, "It is that motive which as it stands in the view of the mind is the strongest." Liberty, according to him, belongs not to the will itself, but to the person, and the liberty which any one possesses is merely liberty to act as he wills. Any other kind of liberty, he affirms implies three suppositions:—(1) "A self-determining power in the will," (2) "Indifference,—that previous to the act of volition the mind is in a state of equilibrium;" and (3) "Contingence,—that events are not necessarily connected with their causes." These suppositions, as involving in different forms denials of the law of causality, are severally shown to be absurd. That Edwards demonstrates the position of his opponents to be utterly untenable must without the least qualification be admitted; but he is unconsciously equally successful in overthrowing his own theological position. Accordingly Edwards's theory of the will, like his ethical theory, is now held only by those who, in regard to the supreme power, are agnostics. His theory differs in no respect from that of John Stuart Mill, except that his statement of the law of causality is a little confused, and that he gives a different account of the origin of our knowledge of causality. He so far anticipated Hume as to recognize that by cause is often meant "any antecedent with which a consequent event is so connected that it truly belongs to the reason why the

proposition which affirms that event is true, whether it has and positive influence in producing it or not." There is, of course, some confusion here, as the word "reason" is, in the position in which it stands, ambiguous, showing that Edwards never properly grasped the distinction between causality and mere sequence; and further differing from Hume in recognizing that there are causes which have a positive influence in producing their effects, his statements are rendered additionally perplexing by his unconsciously making use of either signification of the word cause, according to the exigencies of his argument. Thus he makes our knowledge not only of the law of positive causality but of mere sequence to depend not on experience but on a primary intuition "implanted by God in the minds of all mankind," which is virtually a contradiction in terms. There is also the further difficulty as to how, consistently with his theory in regard to the will, he can hold any other doctrine regarding causality than that it is that mere sequence which experience enables us to believe in; for it seems impossible that we can have a primary intuition of causality unless from the consciousness of our own casual energy.

That part of Edwards's argument in which he most decidedly fails is his endeavour to reconcile his theory of the will with his own views in regard to moral agency, and more particularly in regard to the nature of reward and punishment. John Stuart Mill admits that, on his own theory, the only ends that can justify punishment are the benefit of the offender himself and the protection of others, and the only "feeling of accountability" he contends for is that "caused by the experience of punishment." It has been disputed whether even the kind of punishment contended for by Mill is on his theory justifiable, but he has endeavoured to obviate objections to it by distinguishing between what he calls "modified fatalism" and what he calls the "true doctrine of causation." The distinction is similar to that drawn by Edwards between "moral" and "natural" necessity. It may be questioned whether Mill's doctrine of causality leaves room for this distinction, but undoubtedly Edwards's doctrine does not; for by tracing our knowledge of causality not to experience but to a primitive intuition, he becomes not merely a "determinist," but a "necessitarian." Whether the doctrine of the will held by Edwards, Hume, and Mill be the correct one, or whether the true solution of the problem or its true statement is to be found in some form of the transcendental philosophy which received its great impulse from Kant, it is not our province to inquire; but there need be no hesitation in affirming both that Edwards is successful in showing that the doctrine of the freedom of the will must be stated in different terms and justified by different methods than those employed up to his time, and that, on account of his attempting to build on principles so widely removed from each other as to be utterly irreconcilable, his own well-planned structure, notwithstanding extraordinary applications of architectural skill, inevitably collapses.

The collected works of Jonathan Edwards, including a large number of sermons, were first published at Worcester, Mass., 1809, in 8 vols. 8vo. Among various other editions afterwards published may be mentioned that by his relative Sereno E. Dwight, 1830, in 10 vols., containing a memoir by Dr Dwight. This edition, with an introductory essay by Henry Rogers, was published at London in 1840, in two vols. Edwards's principal treatises are:—*Religious Affections* (1746); *Life of Brainerd* (1749); *Freedom of the Will* (1754); *God's Last End in the Creation of the World* (1755); *Original Sin* (1758); the uncompleted *History of Redemption* (1777); and *Nature of Virtue* (1788). There is an interesting sketch of Edwards's life, character, and opinions in Leslie Stephen's *Hours in a Library* (2d series, 1876). (T. F. H.)

EDWARDS, Richard (1523?–1566?), a musician and writer of interludes, was born in Somersetshire, studied at Corpus Christi College, Oxford, took his master of arts degree in 1547, entered at Lincoln's Inn, and was appointed in 1561 a gentleman of the royal chapel and master of the singing boys. He probably died about the end of 1566, as his epitaph was written by Turberville in the following year. A "tragedy" from his pen—possibly, in spite of the designation, the comedy of *Damon and Pithias*—was acted before Queen Elizabeth at Christmas 1564; and on September 3, 1566, the same honour was accorded to his *Palamon and Arcite*. The latter play was never printed, and like most of the author's productions is now lost, but the former, entered at Stationers' Hall in 1567–8, appeared in 1571 with the title of "The excellent Comedie of two the moste faithfullest freendes, Damon and Pithias," was reprinted in 1582, and may be found in Dodsley's *Old Plays*, vol. i., and *Ancient British Drama*, vol. i. It is written in rhymed lines of rude construction, varying in length and neglecting the *cæsura*, and, according to A. W. Ward, it is "one of the clumsiest of our early plays, both in action and in language." Its principal subject is tragic, but it is interlarded with scenes of vulgar and witless farce. A number of the author's shorter pieces are preserved in the *Paradise of Dainty Devices*, first published in 1575, and reprinted in the *British Bibliographer*, vol. iii.; the best known are the lines on May, the *Amantium Iræ*, and the *Commendation of Music*, which has the honour of furnishing a stanza to *Romeo and Juliet*. The *Historie of Damocles and Dionise* is assigned to him in the 1578 edition of the *Paradise*. In his own day Edwards was held in the highest estimation. "He united," says Warton, "all those arts and accomplishments which minister to popular pleasantry; he was the first fiddler, the most fashionable sonneteer, the readiest rhymer, and the most facetious mimic of the court."

See, besides the numerous authorities given by Allibone in *Dict. of Brit. and Amer. Authors*, the *Shakespeare Soc. Papers*, vol. ii. art. vi.; Ward, *English Dram. Literature*, vol. i.

EDWIN, or Eadwine, king of Northumbria, was the son of Ælla, king of Deira, and was born about 586. At the death of Ælla, in 588, Ethelfrid, king of Bernicia, Ælla's brother-in-law, usurped the throne of Deira, and united the two kingdoms Deira and Bernicia, under the name of Northumbria. Edwin ultimately found shelter with Rædwald of East Anglia, who, in 617, defeated and slew Ethelfrid near the river Idle, and enabled Edwin to mount the Northumbrian throne. In 625 Edwin married Ethelburgha, daughter of Edbert, king of Kent. She had been converted to Christianity, and, at her desire, Paulinus, a Christian missionary, was allowed to enter Northumbria. Not long after Paulinus's arrival, Eumer, an envoy of the king of Wessex, made an attempt to assassinate Edwin, who was only saved by Lilla, one of his thanes, throwing himself between him and the assassin's weapon. The thane was killed, and the sword passing through his body inflicted also a dangerous wound on the king. The queen about the same time was seized by the pangs of childbirth, and was so alarmed on account of what had happened that she and her infant were for a time in imminent danger. Paulinus offered up prayers for their recovery, and Edwin was so much impressed by the seeming answer to the petition, that, though he did not at once adopt the Christian faith, he permitted the infant and twelve of his household to be baptized. He also declared to Paulinus that if he should succeed in overthrowing the West Saxons, against whom he had determined to make war, he would himself become a Christian, and receive the rite of baptism. After his victorious return he renounced his heathen gods, but it required all Paulinus's powers of persuasion to get him finally to adopt Christianity, and to give it his sanction as the religion of Northumbria. Ultimately, however, he convened a council of his nobles to ask their advice, and when they unanimously declared for the new religion, Coifi, the high priest, at once offered to destroy all the heathen places of worship throughout the land. This was done, and in 628 the Northumbrians flocked in crowds to be baptized by Paulinus. While the introduction of Christianity into Northumbria is the circumstance most worthy of mention in Edwin's reign, it was also remarkable in other respects. So strict was his administration of justice, that it was said that "a woman with her babe might walk scatheless from sea to sea in Edwin's day." He was also the first real Bretwalda, although Ælla, his father, first laid claim to the title. He compelled the submission of the West Saxons, conquered Anglesea and Man by his fleet, and received tribute from all the kingdoms south of the Humber, with the exception of Kent. To guard his northern dominion he erected the fortress of Edinburgh or Edwin's burgh. In 633 Penda, king of Mercia, taking advantage of a reaction that was setting in in favour of the old paganism, determined to resist Edwin's authority and combining with Cadwallader, king of the

Western Britons, defeated and slew him at the battle of Heathfield.

See Palgrave's *History of the Anglo-Saxons*, and Green's *Short History of the English People*.

EDWY, EADWIG, or EDWIN, surnamed the Fair, an Anglo-Saxon king, was the son of Edmund I., and succeeded his uncle, Edred, on the throne in 955, being then from 16 to 18 years of age. His immediate rule was limited to Wessex, his younger brother Edgar reigning over Mercia with the title of sub-king. On account of the relation in which Edwy stood to Dunstan, abbot of Glastonbury, it is impossible, from the narratives that have been transmitted to us, to arrive at any certainty as to the interpretation to be given to his character, and to the main facts of his reign. It is said that on the day of his coronation he retired early from the banquet to the apartment of Elgiva, whom he undoubtedly recognized as his wife, but who, according to the monks, was related to him within the prohibited degrees; and that Dunstan, abbot of Glastonbury, enraged at the affront thus put upon the church, followed him, and not without violence dragged him back to the banqueting hall. Either for this particular manifestation of authority, or because the king was opposed to his policy of substituting monks for secular canons and was unable to restrain his domineering spirit, Dunstan was deprived of his offices and banished from the kingdom. The Mercians, however, revolted, and, proclaiming Edgar sole king, recalled Dunstan to their dominions. It is said also that Odo, archbishop of Canterbury, instigated a plot for separating Elgiva from Edwin, that she was sent to Ireland where her face was disfigured with hot searing irons, and that on her escape to England she was again seized and put to death by torture at Gloucester; but the monks affirm that the lady who was subjected to this treatment was not Elgiva, but her mother Ethelgiva, who was also the mistress of the king. Edwy died in 958.

EECKHOUT, GERBRAND VAN DEN (1621–1674), a painter, born at Amsterdam on the 19th of August 1621, entered early into the studio of Rembrandt. Though a companion pupil to F. Bol and Govaert Flinck, he was inferior to both in skill and in the extent of his practice; yet at an early period he assumed Rembrandt's manner with such success that his pictures were confounded with those of his master; and, even in our day, the Resurrection of the Daughter of Jairus, in the Berlin Museum, and the Presentation in the Temple, in the Gallery of Dresden, have been held to represent worthily the style of Rembrandt. As evidence of the fidelity of Eeckhout's imitation we may cite his Presentation in the Temple, at Berlin, which is executed after Rembrandt's print of 1630, and his Tobit with the Angel, at Brunswick, which is composed on the same background as Rembrandt's "Philosopher in Thought." Eeckhout not merely copies the subjects; he also takes the shapes, the figures, the Jewish dress, and the pictorial effects of his master. It is difficult to form an exact judgment of Eeckhout's qualities at the outset of his career. His earliest pieces are probably those in which he more faithfully reproduced Rembrandt's peculiarities. Exclusively his is a tinge of green in shadows marring the harmony of the work, a certain gaudiness of jarring tints, uniform surface, and a touch more quick than subtle. Besides the pictures already mentioned we should class amongst early productions on this account, the Woman taken in Adultery, in the Museum of Amsterdam; Anna presenting her Son to the High Priest, at the Louvre; the Epiphany, at Turin; and the Circumcision, at Cassel. Eeckhout matriculated early in the Guild of Amsterdam. A likeness of a lady at a dressing table with a string of beads, in possession of Mr Von Stummer, at Vienna, bears the date of 1643, and proves that the master at this time possessed more imitative skill than genuine mastery over nature. As he grew older he succeeded best in portraits, a very fair example of which is the historian Dappers (1669), in the Städel collection. Eeckhout occasionally varied his style so as to recall in later years the "small masters" of the Dutch school. Waagen justly draws attention to his following of Terburg in Gambling Soldiers, at Stafford House, and a Soldiers' Merrymaking, in the collection of the Marquis of Bute. A Sportsman with Hounds, probably executed in 1670, now in the Vander Hoo gallery, and a Group of Children with Goats (1671), in the Hermitage at St Petersburg, hardly exhibit a trace of the artist's first education. Amongst the best of Eeckhout's works Christ in the Temple (1662), at Munich, and the Haman and Mordecai of 1665, at Luton House, occupy a good place. Eeckhout died at Amsterdam on the 22nd of October, 1674.

EECLOO, the head town of a district in the province of East Flanders, Belgium, is situated near the Lieve, 11 miles N. W. of Ghent. It is a neat, clean, and well-built town, and possesses a variety of industries, among which are woollen and linen mills, manufactories of tobacco, chocolate, soap, and starch, breweries, and distilleries. It has also a considerable timber, grain, and cattle trade. Population in 1874, 10,200.

EEL, a name applied more or less generally to all the species of *Murænidæ*, a family of soft-finned apodal fishes, but more specially applicable to the species belonging to the sub-family *Anguillina*. The body throughout the family of eels is greatly elongated and of snake-like form. The ventral fins are awanting in all the species, while in certain forms, as the Muræna, the pectoral fins are also absent. The skin is thick and soft, and is covered over with a glutinous secretion which gives the eel its proverbial slipperiness. It is also sufficiently tough to enable it to be stripped entire from the body, and in some countries the skin is thus used as a bag or purse. Scales, disposed in groups, are present in the eels belonging to the genus *Anguilla*, but they are so buried beneath the outer layer or scarf skin as not to be apparent, while in such forms as the conger they are altogether awanting. The bronchial openings are small, and lead into a sac, from which another sac is given off. The gills are thus exposed but slightly to the drying influence of the atmosphere, and it is owing to this, and to the slimy condition of the skin, that eels can exist for a considerable time out of water. According to Dr Günther, the *Murænidæ* comprise 26 genera and 230 species, inhabiting the seas and fresh waters of temperate and tropical regions. Of these only the true eels, *Anguilla*, inhabit fresh water, although most of the latter are likewise marine.

Although abounding in almost every river, lake, and estuary in Europe, little was known until recently of the life-history of the fresh-water eels. With regard to their origin Aristotle believed that they sprang from the mud, Pliny that they took their rise from portions of the skin scraped off the parent body, while horse hairs and May-dew have both been regarded as fertile sources of eels. Until quite recently, they were regarded by naturalists as viviparous, a mistake which probably arose from the frequent presence of parasitic worms, supposed to be the young, in their bodies, and the absence of anything exactly resembling milt and roe as usually found. Like all other Teleostean fishes they are oviparous, the milt and roe occurring in the same position, but differing considerably in appearance from those elements in other fishes. The spawn of the eel is generally deposited in sand and mud at the mouths of rivers, and in harbours where the water is brackish. To reach these spawning grounds, eels migrate in autumn down the river channels, and at those times they are taken in large numbers by various devices, such as the "eel-buck" of the Thames, a wooden framework supporting wicker baskets, the mouths of which are opposed to the stream, and which are so constructed that the fish when once inside is unable to extricate itself. When there are obstacles in the way of their getting to the sea, eels are known to deposit their spawn in the beds of fresh-water streams, but it is still doubtful whether this may not also occur in cases where the sea is quite accessible. Eels are peculiarly averse to cold, and the fact that the temperature of the brackish waters of estuaries is always higher than that of unmixed salt or fresh water is an additional reason for their seaward migration on the approach of winter. In performing this journey the darkest nights are chosen, the moonlight being sufficient to stay their progress. During the cold of winter they lose their appetite and become torpid, large numbers of them congregating together for the sake of the additional warmth thus obtained, and burying themselves to a depth of 12 to 16 inches in places where the receding tide leaves them dry. In such places they are taken in large numbers by means of eel-spears. In Somersetshire, according to Yarrell, "the people know how to find the holes in the banks of the rivers in which eels are laid up, by the hoar frost not lying over them as it does elsewhere, and dig them out in heaps." In spring, the migration of the young eels up the rivers takes place, the parents, according to some observers, performing a similar journey. This migration takes place from February to May, according to the temperature, and some idea of the vast numbers of young eels which annually pass up our rivers may be formed from the fact that 1800 of them, each about 3 inches long, have been observed to pass a given point on the Thames in a single minute. This monster procession of *elvers*, as these young eels are called, is known on the Thames as *eel-fare*, and usually takes place about the beginning of May; and at these times, unfortunately, they are often caught in countless numbers in sieves, especially on the Severn, cartloads of them being sometimes seen for sale in the Exeter market. This upward migration, unlike that of autumn, is performed entirely by day, and it is carried through in spite of obstacles apparently insuperable to a fish. Eels have been known to climb up steep ascents, 20 feet above the water, showing great skill and ingenuity in availing themselves of whatever natural aids the locality might afford. Couch tells of a remarkable case in the neighbourhood of Bristol, where the elvers passed from one stream to another by means of a tree which stood between, and the branches of which dipped into the water of the lower. Ascending by these, the eels dropped from the branches on the opposite side into the upper stream. In some parts of Ireland the fishermen place haybands on the rocky parts of the river-courses, in order to facilitate the upward progress of the eels. The most effectual obstacle, however, to their advance in either direction is found in a muddy or polluted state of the water; and old eels, to get rid of such nauseous conditions, have been known to leave the water and travel for considerable distances in search of purer surroundings. When confined also in ponds they often show their migratory instinct by leaving these in the night time, and attempting to make their way to the nearest river or to the sea.

Like most animals that pass the winter in a torpid condition, eels are exceedingly voracious during the summer months, occasionally eating vegetables, but generally preferring such animal food as young fishes, worms, and the larvæ of insects; they have also been known to devour much larger creatures, as water-hens, rats, and snakes. Although their food is thus very various, it is essential that it be fresh, eels at once rejecting whatever their keen sense of smell detects as tainted. Eels were held in great esteem by the Greeks and Romans, and enormous prices were sometimes paid for them; by the Egyptians, on the other hand, they were held in abhorrence. Their snake-like appearance has had much to do with the prejudice entertained by many people against eels, and to this may be attributed the fact that in Scotland this valuable fish is almost wholly rejected as an article of food. Their value in this respect has, however, been recognized in England from very early times, the taste for eels having probably been acquired during the Roman occupation. The Venerable Bede states that England in his time was famous for its salmon and eel fisheries, and Ely is said to have got its name from the abundance of the eels in that fenny neighbourhood. Eels are very largely consumed in London, the greater proportion of these, numbering about 10 millions, being brought alive annually from Holland in welled boats. The greatest eel-breeding establishment in the world is that at Commachio on the Adriatic, where an immense swamp, bounded and fed by two of the mouths of the river Po, 140 miles in circumference, has been utilized for this purpose. The industry is very ancient, having yielded in the 16th century an annual revenue to the Roman Pontiffs, in whose territory it was, of £12,000. The eels are cooked at Commachio, and forwarded to the principal towns of Italy.

The best known and most widely distributed fresh-water species is the Sharp-nosed Eel (*Anguilla vulgaris*). It occurs, according to Dr Günther, in Europe to 64° 30′ N. lat., in the Mediterranean region, and in North America, but neither in the Danube, nor in the Black and Caspian Seas. Like all other eels it is of comparatively slow growth, but often attains a large size, measuring sometimes 5 feet in length, and weighing in such cases from 20 to 30 ℔. Few eels, however, weigh more than 6 ℔. They are believed to be long-lived, one authentic instance being known of an eel which was at least 31 years old. The colour of the species is generally dark olive-green on the upper surface, becoming lighter on the sides, and white beneath; but the colour depends somewhat on the nature of the stream it inhabits, those obtained in pure water being known as silver eels from the lightness of their colour, while those found in muddy rivers are darker.

The Conger (*Conger vulgaris*) is the only British species of sea-eel. It differs from the true eels in having the upper jaw projecting beyond the lower, and in the entire absence of scales. It is abundant in all parts of the British coasts, especially on rocky ground, and attains a length of 10 feet, weighing in large examples over 100 ℔. The conger is exceedingly voracious, feeding on other fishes, and not sparing even its own kind. Its jaws are strong and well-armed, and the capture of a large specimen is not unattended with danger to the fisherman. Its tail is exceedingly sensitive and prehensile, the conger being able with this organ to grasp the gunwale of the boat, and by a sudden contraction of the muscles to throw itself overboard, a smart blow on the tail, however, is sufficient to prevent the possibility of this occurrence. The conger is peculiarly sensitive to cold, and during severe frosts it is often taken floating helplessly on the surface of the sea. Mr F. Buckland states that in 1855 thousands of congers were found floating upon the water; they could progress readily in any direction on the surface, but could not descend, and consequently fell an easy prey to the boatmen. In this way, no less than 80 tons were captured. "The action of the frost," he says, "caused the air in their swimming bladders to expand so much that the ordinary muscles could not expel it at will." The chief conger fisheries are on the south and west coasts of England, but these are not nearly so productive now as they formerly were. The flesh is not held in much esteem.