

for storing as well as from their reckless improvidence, should in severe climates be often driven to this extremity. For example, it is known that the miserable natives of Tierra del Fuego, when starving in winter, would throttle and devour the oldest woman of the party; when asked why they did not rather kill their dogs, they replied, "Dog catch otters!" (Fitzroy, *Voy. of Adventure and Beagle*, vol. ii. p. 183). For accounts of cannibalism and murder under stress of hunger in Australia see Salvado, *Memorie dell' Australia*, p. 240; Waitz, *Anthropologie der Naturvölker*, vol. vi. p. 749; among American tribes, Bancroft, *Native Races of Pacific States*, vol. i. p. 120; Back, *Exp. to Great Fish River*, p. 227; Waitz, vol. iii. p. 89; in Polynesia, Ellis, *Polynesian Researches*, vol. i. p. 359; Martin, *Mariner's Tonga Islands*, vol. i. p. 116.

II. *Fury or Bravado*.—The North American Indian phrases as to eating the flesh and drinking the blood of their enemies are not to be taken as mere metaphor, but as referring to acts really done. There is even an Iroquois legend of a dialogue between the Manitu (Great Spirit) and a warrior who defends the eating of slain enemies as satisfying at once hunger and revenge (Crèvecoeur, *Journey in Pennsylvania*; Klemm, *Allgemeine Culturgeschichte*, vol. ii. p. 28). For actual details of this ferocious custom see Schoolcraft, *Indian Tribes*, vol. iii. p. 242; Hennepin, vol. ii. p. 159; J. G. Müller, *Amerikanische Urreligionen*, p. 145; Waitz, vol. iii. p. 159. Among the Polynesians, there is similar evidence of warriors devouring the flesh and drinking the blood of the slain enemy, where the purpose seems clearly that of inspiring terror and gratifying vengeance. (See Ellis, *Polynesian Researches*, vol. i. p. 309; Turner, *Polynesia*, p. 194; Waitz, vol. vi. p. 158.)

III. *Morbid Affection*.—Cases of the dead being devoured by relatives and friends (especially children by parents) from a sentiment of affection are recorded among low savage tribes, see Spix and Martius, *Reise in Brasilien*, vol. ii. p. 692; Angas, *Savage Life in Australia, &c.*, vol. i. p. 73; Howitt, *Impressions of Australia*, p. 134; Gerland, *Aussterben der Naturvölker*, p. 66. Such accounts are not, however, numerous, and sometimes, at least, may properly belong to other classes. The most remarkable is the often-quoted passage of Herodotus (iv. 26), describing the funeral feasts of the Issedones of Central Asia, where the relatives ate the body of the deceased with other meat, the skull being set in gold and preserved; these were sacred rites done in honour of the dead. As lately as the 13th century, William of Ruysbrück was told that the people of Tibet had till recently kept up this custom of eating their deceased parents, and still used their skulls as drinking-cups (Rubruquis in *Pinkerton's Coll. of Voyages*, vol. vii. p. 54).

IV. *Magic*.—Few notions belonging to primitive savage magic are more intelligible or more widely spread than the belief that the qualities of any animal eaten will pass into the eater. This motive naturally leads to cannibalism (see Stanbridge, in *Trans. Ethnological Soc.*, vol. i. p. 289), especially in war, where the conqueror eats part of the slain enemy with the avowed purpose of making himself brave. This idea is found among the natives of Australia (see Macgillivray, *Voyage of Rattlesnake*, vol. i. p. 152, vol. ii. p. 6), and not less distinctly in New Zealand (Ellis, vol. i. p. 358); among the North American Indians, when warriors would devour the flesh of a brave enemy, and particularly the heart as the seat of courage (Keating, *Long's Expedition*, vol. i. p. 102); also in Ashantee (J. L. Wilson, *Western Africa*, p. 168). An English merchant in Shanghai, during the Taeping siege, met his Chinese servant carrying the heart of a rebel, which he was taking home to eat to make him brave (Tyler, *Early History of Mankind*, p. 133). The imagined value of human flesh

in giving magical powers to the eater is known to the savage world both in Australia and America (Eyre, *Central Australia*, vol. ii. pp. 255, 329; Angas, vol. i. p. 123; Keating, vol. i. p. 103; Waitz, vol. iii. p. 159, vol. vi. p. 748). This idea even holds a place in the more cultured magical traditions of Asiatic and European nations (see Gerland, p. 66; Schaafhausen, in *Archiv für Anthropologie*, vol. iv. p. 247).

V. *Religion*.—One of the strongest reasons for considering anthropophagy as having widely prevailed in prehistoric ages is the fact of its being deeply ingrained in savage and barbaric religions, whose gods are so often looked upon as delighting in human flesh and blood. The flesh of sacrificed human victims may even serve to provide cannibal feasts. The understood meaning of these rites may be either that the bodies of the victims are vicariously consumed by the worshippers, or that the gods themselves feed on the spirits of the slain men, their bodies being left to the priests and people. Thus in Fiji, "of the great offerings of food, native belief apportions merely the soul thereof to the gods, who are described as being enormous eaters; the substance is consumed by the worshippers. Cannibalism is a part of the Fijian religion, and the gods are described as delighting in human flesh" (T. Williams, *Fiji and the Fijians*, vol. i. p. 231). In Mexico, the anthropophagy which prevailed was distinctly religious in its origin and professed purpose. That the primary meaning of the human sacrifice was to present victims to their deities is shown by the manner in which the sacrificing priest, who tore out the heart, offered it to the sun, and afterwards went through ceremonies of feeding the idol with the heart and blood. It was the Aztec worship of the war-god Huitzilopochtli which brought on the enormous prevalence of sacrifices of prisoners; to obtain supplies of such captives became a motive for frequent wars; and it was the limbs of these victims which were eaten in the sacrificial feasts that formed part of the festivals. (For particulars and authorities see Prescott, *Conquest of Mexico*; Bancroft, vol. ii.; Waitz, vol. iv.) In Africa, also, cannibalism has in some cases evidently a sacrificial character (see Lander, *Records*, vol. ii. p. 250; T. J. Hutchinson, *Ten Years among Ethiopians*, p. 62, &c.)

VI. *Habit*.—The extent to which anthropophagy has been carried among some nations is, no doubt, mainly due to the indulgence of the appetite once aroused. In such cases this reason is openly avowed, or some earlier motive remains rather in pretext than in reality, or the practice is justified on the ground of ancestral custom. It seems, for instance, that the cannibal feasts of old Mexico had become in themselves acceptable to the people, and that we must refer the sickening horrors of Fijian anthropophagy more to sensual gratification than to any religious motive. Among conspicuous cannibal races may be mentioned the semi-civilized Battas of Sumatra, whose original instigation to eating their enemies may have been warlike ferocity, but who are described as treating human flesh as a delicacy, and devouring not only war-captives but criminals, slaves, and, according to one story, their aged kinsfolk (Junghuhn, *Batta-Länder*; Marsden, *Hist. of Sumatra*, p. 390; see also Wuttke, *Geschichte des Heidenthums*, vol. i. p. 172; Friedmann in *Zeitschrift für Ethnologie*, 1871, p. 313). Cannibalism assumes its most repulsive form where human flesh is made an ordinary article of food like other meat. This state of things is not only mentioned in past times in descriptions of West Africa, where human flesh was even sold in the market (see Pigafetta, *Regnum Congo*, in De Bry; Wuttke, vol. i. p. 171), but still continues among the Monbuttu of Central Africa, whose wars with neighbouring tribes are carried on for the purpose of obtaining human flesh, the bodies of the slain being dried for

transport, while the living prisoners are driven off like cattle (Schweinfurth, *Heart of Africa*, and in *Zeitschrift für Ethnologie*, vol. v. p. 9). Where cannibalism for its own sake becomes popular among a warlike people, its effect in thinning population, and even in exterminating weak tribes, becomes perceptible. This subject has been investigated by Gerland (*Aussterben der Naturvölker*, p. 61).

As to the history of anthropophagy, the most interesting question is whether at any early period it was ever a general habit of the human race. This has been debated on the evidence of prehistoric human remains (see Schaafhausen, *ubi supra*, p. 264; *Proceedings of Congresses of Prehistoric Archaeology*, Paris and Copenhagen). It has been well argued that had the men of the quaternary period been cannibals, we should find the bones generally cracked for the marrow like those of beasts, which is not the case (Le Hon, *L'Homme Fossile*, p. 68); also that, as regards the ancient people of the shell-mounds, had they eaten their own species they would have thrown the human bones into the rubbish heaps with those of beasts and fishes (Lubbock, *Prehistoric Times*, p. 232). The discovery of some few ancient human remains, the state of which seems to indicate that the flesh had been eaten, may perhaps be taken to show that prehistoric savages were in this respect like those of modern times, neither free from cannibalism nor universally practising it. During later ages, it may have even increased rather than diminished with the growth of population,—its greatest excesses being found among high savage tribes or nations above the savage level. But with the rise of civilization to its middle and upper levels, it is more and more kept down by the growing sense of the dignity of man, and eventually disappears, as we may hope, irrevocably. (E. V. T.)

CANNING, GEORGE (1770–1827), one of the greatest of English statesmen and orators, was born in London on the 11th April 1770. He was descended from an ancient family; but his father, having incurred the displeasure of his parents, was cut off with a scanty allowance, and obliged to try his fortune in the metropolis. Here he studied for the bar, but literature proved too attractive for him, without yielding him even a tolerable livelihood. His affairs were not improved by a marriage with an Irish lady, of good connections and some beauty, but as poor as himself. He died of a broken heart, a year after the birth of his son. The widowed mother took to the stage without achieving any great success, and in this new way of life married twice,—neither time wisely.

It was thus, in the society of the stage, that the future premier of England passed his earliest years. It was well for him, therefore, when one of his paternal uncles, a wealthy banker in London, took upon himself the care of his education. Young Canning was then in his eighth year, and from that time had all the advantages of the best education and the most cultured society, for Burke, Fox, Sheridan, and other leading Whigs were guests at his uncle's house. After spending a few years at a London school he went in due time to Eton and Oxford. At both places he highly distinguished himself. He was a brilliant scholar, gave promise of the future orator in the debating societies, became known as a wit in a wide circle of admiring friends, and even at Eton, at the age of sixteen, gave decided evidence of literary talent, in a periodical got up amongst his schoolmates. From Oxford he returned to London with the reputation of a man able to perform great things. And now he had to choose between two careers, not easily to be combined by one who had his own way to make in the world. The generous enthusiasm of youth tempted him into a political career; worldly prudence pointed him to the bar as the safer profession for man without means. Circumstances decided in favour

of the former. Pitt was now being drawn into the terrible crusade against the French Revolution, and greatly needed able associates to make head against the fiery eloquence of Fox and Sheridan. To Canning, who soon became known in the clubs and other political circles of the metropolis as a young man of the most brilliant promise, he made the offer of the nomination borough of Newport. This was accepted, and Canning entered Parliament as an adherent of Pitt in 1793, being twenty-three years of age.

Canning is charged with having taken this step from interested motives. In the debating societies of Oxford and the metropolis he had been an enthusiastic Liberal, and had long been the friend of the Liberal leaders. Now, when the prospects of the Whig party were becoming gloomier every day, this crossing over to the ranks of Pitt had a suspicious appearance of convenience. But there is no real ground for such suspicion. With regard to the French Revolution, which was now the all-absorbing political question, Canning simply underwent the same change of opinion as the immense majority of educated Englishmen, Pitt included, hailing it at first as the dawn of a new day for France and Europe, but turning away from it in dismay and indignation, and determined to oppose it, when he saw it was more likely to subvert than to reform society.

From his entrance into Parliament till the death of Pitt in 1806, Canning was an ardent and devoted supporter of all the measures of that statesman. In the House of Commons he soon took his place as one of the most brilliant and successful debaters of the time, though unhappily his efforts needed to be directed against his own friends, Fox and Sheridan; and he gave proof of his business capacity in some of the less prominent departments of the administration. Out of Parliament he fought the Revolution almost as effectively by starting (in 1797) the *Anti-Jacobin*, a weekly paper, in which the principles of innovation in morals, in literature, and above all, in politics, were mercilessly attacked, and their advocates covered with ridicule and abuse. Canning contributed many of the humorous articles, and in this way extended the reputation for caustic wit he had already acquired in Parliament.

In 1800 Canning married Miss Joan Scott. The marriage was in every way a happy and a fortunate one, based on mutual love and esteem, which continued unbroken to the end; while Miss Scott had a large fortune, and was connected with some of the highest of the aristocracy.

On the death of Pitt in 1806, and the formation of a Whig ministry by Fox and the Grenvilles, Canning went into opposition, and showed that, even on a question of humanitarian interest, he was not above the pettiest feelings of party. He supported, but very coldly, the bill for the abolition of the slave-trade.

On the return of the Tories to power in 1807, Canning entered on his first great Government office, the secretaryship for Foreign Affairs. It was one of the darkest periods in the history of England. The great European coalition had been overthrown at Austerlitz, Austria compelled to an ignominious peace, Prussia nearly annihilated, and Russia obliged, at the peace of Tilsit, to connive at the supremacy of Napoleon, or induced to share in the division of the Continent. Canning performed the arduous duties of his office with extraordinary tact and energy. It was he that planned the expedition to Copenhagen, for the seizure of the Danish fleet, with such secrecy and despatch as completely to anticipate Napoleon, and excite in him the liveliest astonishment and wrath. The negotiations for peace opened with the English Government by Napoleon and Alexander, and the invasion of Spain, still further complicated the difficulties of his position, only to throw new lustre on his genius. He soon saw that the Peninsula was the battlefield on which England could bring her strength advantageously to bear

against the armies of the French conqueror. He encouraged the spirit of resistance in the Spanish nation, supported the Spanish armies, first with supplies of arms, and then with the active co-operation of the English forces, and was one of the first to recognize and employ the military capacity of the future duke of Wellington. Unfortunately, an event soon occurred which deprived the country of his services, when the need was greatest, and when he was the only statesman in England whose talents were of the first order. In 1809, Lord Castlereagh, as Secretary-at-War, had organized the expedition to Walcheren, the worst conducted and the most disastrous of the whole war. In consequence of it a dispute arose between his lordship and Canning, which resulted in a duel, and in the resignation of both. From this unfortunate incident till 1822, Canning took no very prominent part in the Government of the country. This is particularly to be regretted, as the period in question includes the decisive years of the Napoleonic struggle, and the new settlement of Europe by the peace of Vienna, when Canning might have done good service by insisting, more than was done, on the claims of nationality and constitutional liberty. In this he was not free from blame, as he allowed his personal dislikes too much to interfere with his duty to his country. But the chief reason was his advocacy of Catholic Emancipation, which lost him favour at court. Men's motives must always remain to some extent doubtful; still it seems clear that at one time his dislike of Castlereagh, at another his insistence on Catholic Emancipation, prevented him from resuming his place in the Foreign Office. He lived to regret this deeply, and to declare that two years of office at the termination of the European struggle would have been worth ten years of life. Even now, however, he was not idle. In 1812 he made a powerful speech in favour of Emancipation, which was carried in the Commons by a large majority, but rejected by the Lords. From 1814 to 1816 he was ambassador at Lisbon, and from 1817 to 1820 President of the Board of Control for India. As a member of the Cabinet during the latter period he was very active in support of Government, strongly advocating the coercive measures employed at home during the years which immediately followed the Revolution. It is indeed a noteworthy fact in his political career that, though unable to act with Castlereagh in the most dangerous crisis of the French war, he found it right to join him and his associates in such severe measures of repression,—noteworthy, but quite explicable, as Canning never professed to be anything else than a disciple of Pitt.

At the head of the Board of Control, Canning gained the entire confidence of the directors of the East India Company. In consequence, they had appointed him to the governor-generalship of India, and he had proceeded to Liverpool to take leave of the constituents who had four times returned him to Parliament, when news came of the death of Castlereagh (then earl of Londonderry). The voice of the country had already named him successor in the Foreign Office, and, in this capacity, under the premiership of Lord Liverpool, Canning entered upon the last and most brilliant period of his career. The state of Europe had greatly changed since his resignation of the same office in 1809. The Holy Alliance now aspired to regulate the affairs of the world. Inaugurated by the emperor of Russia, under the inspiration of Madame Krudener, it was at first a sincere attempt of the rulers of Europe to govern on Christian principles. But even the Russian emperor was soon frightened from the path of benevolent reform by the revival of the revolutionary spirit and its appearance in his own army; while interested statesmen like Metternich so utilized the pious aspirations of kings to the profit of despotism, that the Holy Alliance soon became a byword in Europe. Castlereagh had yielded too far to this ten-

dency. The country was getting weary of it. And now Canning came forward to assert the free action of England and the universal right of self-government. He was, however, no revolutionist. In his home and foreign policy alike he aimed at holding a middle course. At home he advocated Catholic Emancipation, and believed in Free Trade, but strenuously opposed Parliamentary Reform. In his foreign policy his principle was that England should hold the balance between the reactionary and the revolutionary parties, "that in order to prevent things going to extremities, she should keep a distinct middle ground, staying the plague both ways." Seeing that the reactionary party predominated in 1822, he judged that England should throw the weight of her influence into the Liberal scales. In accordance with these views, he protested against the doctrine that free institutions should be held only as a spontaneous gift of the sovereign, and disapproved of the measures adopted at the Congress of Verona in 1822, especially of the French invasion of Spain for the restoration of absolutism in 1823,—a year, too, which was marked at home by the passing of the Reciprocity Act, the first step in the direction of Free Trade. In order to render the protest against the invasion of Spain more effectual, it was determined in 1824 to recognize the independence of the South American colonies. On the threatened invasion of Portugal by reactionary Spain in 1823, Canning again interposed with the utmost decision, and the invasion was abandoned. The speeches he made on these occasions, and his general attitude of defiance to despotism, had a marvellous effect, not only in Parliament and in England, but in all civilized communities. He was everywhere hailed as the champion and spokesman of national and popular liberty. The party of progress recovered from the torpor consequent upon the Revolution, and returned to new life. The enthusiasm for his name was heightened when it became known that he had taken the initiative in another act of international justice, by proposing (1826) to France and Russia that combination of the three Powers which led to the battle of Navarino and the establishment of Greek independence.

But ere that result had been attained the great statesman was no more. Early in 1827 Lord Liverpool, who had been the nominal head of the Government since 1812, was disabled. Canning, who now became premier, expected the co-operation of the members of the late administration, but was disappointed, and had to struggle on under the greatest difficulties, and against the most virulent opposition. His exciting labours and the alienation of so many friends were too severe for his sensitive temperament. He caught a severe cold, and died on the 8th of August 1827. He was buried in Westminster Abbey, in the Statesmen's Corner, by the grave of his master Pitt.

His death created a sensation commensurate with his world-wide fame and with the hopes still entertained of him. The splendour of his talents was only matched by their versatility. In his high and brilliant career he had proved himself equal to anything—from guiding the destinies of a great nation through the storms of the Napoleonic wars, down to the editing of a comic journal. He had all the natural endowments of a great orator,—a graceful and commanding form, a musical voice, a perfect mastery of the choicest language, and a ready wit that played with all the resources of his intellect. In private life he was even more admirable,—in his own family an almost perfect model of all the household charities, and towards his mother, whose imprudent marriages had endangered his infancy, full of the tenderest and most affectionate piety. (T. K.)

CANNING, CHARLES JOHN, EARL AND VISCOUNT (1812-1862), Governor-General of India, was the youngest child

of the subject of the preceding notice, and was born at Brompton, near London, on the 14th December 1812. He was educated at Christ Church, Oxford, where he graduated B.A. in 1833, as first class in classics and second class in mathematics. In 1836 he entered Parliament, being returned as member for the town of Warwick in the Conservative interest. He did not, however, sit long in the House of Commons; for, on the death of his mother in 1837, he succeeded to the peerage which had been conferred on her with remainder to her only surviving son, and as Viscount Canning took his seat in the House of Lords. His first official appointment was that of Under-Secretary of State for Foreign Affairs, in the administration formed by Sir Robert Peel in 1841,—his chief being the earl of Aberdeen. This post he held till January 1846; and from January to July of that year, when the Peel administration was broken up, Lord Canning filled the post of Commissioner of Woods and Forests. He declined to accept office under the earl of Derby; but on the formation of the Coalition Ministry under the earl of Aberdeen in January 1853, he received the appointment of Postmaster-General. In this office he showed not only a large capacity for hard work, but also general administrative ability, and much zeal for the improvement of the service. He retained his post under Lord Palmerston's ministry until July 1855, when, in consequence of the death of Lord Dalhousie, and a vacancy in the governor-generalship of India, he was selected by Lord Palmerston to succeed to that great position. This appointment appears to have been made rather on the ground of his father's great services than from any proof as yet given of special personal fitness on the part of Lord Canning. The new governor sailed from England in December 1855, and entered upon the duties of his office in India at the close of February 1856. His strong common sense and sound practical judgment led him to adopt a policy of conciliation towards the native princes, and to promote measures tending to the betterment of the condition of the people.

In the year following his accession to office the deep-seated discontent of the people broke out in the mutiny which grew into the Sepoy War. Fears were entertained, and even the friends of the viceroy to some extent shared them, that he was not equal to the crisis. But the fears proved groundless. He had a clear eye for the gravity of the situation, a calm judgment, and a prompt, swift hand to do what was really necessary. By the union of great moral qualities with high, though not the highest, intellectual faculties, he carried the Indian empire safely through the stress of the storm, and, what was perhaps a harder task still, he dealt wisely with the enormous difficulties arising at the close of such a war, established a more liberal policy and a sounder financial system, and left the people more contented than they were before. While rebellion was raging in Oude, he issued a proclamation declaring the lands of the province forfeited; and this step gave rise to much angry controversy. A "secret despatch," couched in arrogant and offensive terms, was addressed to the viceroy by Lord Ellenborough, then a member of the Derby administration, which would have justified the viceroy in immediately resigning. But from a strong sense of duty he continued at his post; and ere long the general condemnation of the despatch was so strong that the writer felt it necessary to retire from office. Lord Canning replied to the despatch, calmly and in a statesman-like manner explaining and vindicating his censured policy. In April 1859 he received the thanks of both Houses of Parliament for his great services during the mutiny. He was also made an Extra Civil Grand Cross of the Order of the Bath; and in May of the same year he was raised to the dignity of an earl. By the strain of

anxiety and hard work his health and strength were seriously impaired; and in the hope that rest in his native land might restore him, he left India, reaching England in April 1862. But it was too late. He died in London on the 17th of June following. About a month before his death he was created K.G. As he died without issue the title became extinct.

CANNON. See GUNS AND GUNNERY and ARTILLERY. CANO, ALONZO (1600-1667), one of the most vigorous of the Spanish painters, and also, like Michelangelo, with whom he is usually compared, an architect and sculptor of great merit. He has left in Spain a very great number of specimens of his genius, which display the boldness of his design, the facility of his pencil, the purity of his flesh-tints, and his knowledge of chiaroscuro. He was a native of Granada, and a contemporary of Velasquez and Pacheco, whom he rivalled without imitating. As a statuary, his most famous works are the Madonna and Child in the church of Nebrissa, and the colossal figures of San Pedro and San Pablo. As an architect, he indulged in too profuse ornamentation, and gave way too much to the fancies of his day. Philip IV. made him royal architect and king's painter, and gave him the church preferment of a canon. He was notorious for his ungovernable temper; and it is said that once he risked his life by committing the then capital offence of dashing to pieces the statue of a saint, when in a rage with the purchaser who grudged the price he demanded. His known passionateness also (according to another story) caused him to be suspected, and even tortured, for the murder of his wife, though all other circumstances pointed to his servant as the culprit.

CANO, or CANU'S, MELCHIOR (1523-1560), a learned Spanish bishop and theologian, who was pupil and successor of Vittoria as professor of theology at Salamanca. He had one, and only one, rival as to erudition in Spain, Bartolomeo de Carranza, like himself a Dominican, and the university was divided between the partisans of the two professors. On account of his violent opposition to the establishment of the Jesuits in his native country, he was summoned by Pope Paul III. to the Council of Trent, and appointed to the distant see of the Canaries. But his influence with Philip II. procured his recall to Castile, where he became provincial of the Dominican order. His principal works are entitled *Prælectiones de Penitentia*, *De Sacramentis*, and *Locorum Theologicorum Libri XII*.

CANOE, a species of boat. In several Eastern languages the word *kan* means something hollow, with a certain degree of strength. Pliny says some Indian reeds are long enough to form a boat for three men between the joints. The French *canot*, Spanish *canoq*, Italian *canoe*, are derived from the Latin *canna*; but a canoe is sometimes called in France *bateau*, *vot*, *pirogue*, *caïque*, *chaloupe*, *navire*, *nacelle*, or *périssoir*, and the paddle *pagaye*, and the canoeist *pagayeur*. The English word "canoe" may be defined as a boat propelled by one or more paddles used without a fixed fulcrum on the boat, and therefore invariably with the sitter facing towards the bow. The Venetian gondola and the Maltese boats, and many others, are rowed by men who face the bows, but they always have a fixed rest for the rowlock. Canoes are made of various substances. Those of the Esquimaux are of seal-skin stretched over whalebone, and are propelled by the double-bladed paddle, 7 feet long and 6 inches broad, used by one man, whose dress is united with the deck covering, so as to be watertight.

The North American "dug-out" canoe is made from a tree hollowed by fire, while the bark canoes are formed by birch bark sewn together, according to the size required, until the craft will hold as many as seventy men. Paper canoes have been used in the United States. Cork leather

would probably be a very good material. Canoes of tin and of india-rubber have been used in England, but practically all the best canoes now built in England, America, and France for general travelling are of oak, cedar, or pitch pine. The canoe was popular in England more than twenty years ago at Oxford and Cambridge, but only for short river practice, until in 1865 one was specially designed for a long journey by water in seas, lakes, and rivers, and by carriage on land in railways or carts or on horseback, or by being dragged over rough ground or borne on men's shoulders through woods and over hills.

The general type of this "Rob Roy" canoe is built of oak with a cedar deck. The length is from 12 to 15 feet, and the beam from 26 to 30 inches, the depth 10 to 16 inches. The paddle is 7 feet long with 6 inches of breadth in the blade, and is either double bladed, or, if it is used with a single blade, a rudder is worked by the foot to counteract the lateral swerving. A backboard swinging with the paddler's motion enables the canoeist to sit in a comfortable position for many hours at a time, and a mast with some light sails completes his equipment, so that a favourable wind eases the muscular exertion. An ordinary travelling canoe when complete weighs about 70 lb. It will float with its paddle and 10 lb of luggage in 5 inches of water. In the Indian canoes of America the single paddle is usually employed, and the men kneel to the work. The canoeists in the Straits of Magellan paddle standing. The peculiar advantages of a canoe may be summed up thus:—

1. The canoeist faces forwards in the direction of his progress, and therefore he can readily steer without turning his head round.
2. His centre of gravity is five or six inches below what would be necessary in a row-boat, and therefore the canoe is more steady, and is very suitable for shooting from. When the action of the paddle stops the canoeist is at once in comfortable rest. In descending a rapid where rocks or snags are numerous, the canoeist has much power of seeing and avoiding danger, while he can also get out readily, and can sit on the deck in places where the feet, being in the water, are of service in warding off collisions.
3. The knees of the canoeist press outwards against the sides of the "well" or opening in the deck, so that in high seas there is ample "purchase" for counteracting an upset, while the canoeist can use great power with his paddle at a critical moment for lifting the craft over a wave. The alternate action of the arms opens the chest, and the legs are continually exercised by pressure against the stretcher, while the sway of the whole body at each stroke of rowing is dispensed with.
4. He can instantly hoist sail without leaving his place or shifting ballast, and he can fish or shoot conveniently without changing his seat. He can sleep in the canoe when it is properly prepared.
5. The canoe being impelled without rowlocks, by pressure through the legs to the feet resting on the stretcher, and by only one implement (the paddle), the joints of the planks and the nails and fastenings, are not loosened, as in other boats, by the jerky leverage of rowlocks.

6. The deck covering (not feasible in a row-boat) protects the paddler and his luggage from wind, rain, and sea, and adds to the "stiffness" of his craft, so that it can be dragged on rough ground without injury. A canoe should have a very flat floor and small keel; this secures stability, while it diminishes speed to a very small extent.

7. Ladies and young children can conveniently use the canoe because of its safety and the simplicity of its mode of propulsion. Many double canoes are used in England, and some with four paddlers together.

For actual speed over a short and straight course the ordinary sculling skiff is superior to the canoe, but for long journeys of more than a week's duration, and in strange rivers, or with frequent portage, rough usage, intricate navigation, or unexpected difficulties, the canoe is found to be much more convenient than the rowing boat. Forty miles a day in lakes can be kept up for weeks together in a travelling canoe, unless against a contrary wind. Fast racing canoes are 20 feet long and 18 inches broad, and attain a speed of 8 miles an hour. Canoes for "upset races" (where the canoeist has to jump out, tow his boat while swimming, and then get in) and for the race "over land and water" are specially built for their purpose. Other canoes are built chiefly for sailing, and these carry "drop keels," "rockers," and heavy ballast.

In 1866 the Royal Canoe Club was formed in England, and the Prince of Wales became commodore, while about 500 members have been elected in various parts of the world. After the English canoes were seen in Paris at the Exhibition of 1867, others like them were built in France. Branches and clubs were formed also at the English universities, and in Liverpool, Hull, Edinburgh, Glasgow, and New York. A publication called *The Canoeist* records the more important cruises in canoes in almost every country on the globe. One member of the club crossed the English Channel from Dover to Boulogne in his canoe, another from Boulogne to Dover, and a third crossed the Irish Channel from Scotland to Ireland. Many old and new rivers have been explored for the first time in canoes, among which the most interesting were the hitherto inaccessible parts of the Jordan, the Kishon, and the Abana and the Pharpar at Damascus, as well as the Lake Menzaleh in the Delta of the Nile, and the Lake of Galilee and Waters of Merom in Syria. So far as has been ascertained, not one of the members of the Royal Canoe Club has been drowned in any of the numerous long cruises performed.

See Macgregor's *A Thousand Miles in the Rob Roy Canoe*, *The Rob Roy on the Baltic*, and *The Rob Roy on the Jordan, Red Sea, Nile, and Gennesareth, &c.*; *Canoe Travelling*, by W. Baden Powell; *Cruise in a Cockle Shell*, by A. H. Reed; *The Canoeist* (Royal Canoe Club). (J. M'G.)



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