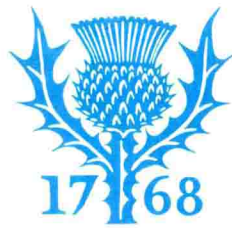




# CHILDREN'S BRITANNICA

Volume 8

GABON—HEDIN



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# Children's Britannica



**GABON** is a republic about twice the size of England, on the west coast of Africa. The country rises from a low coastal plain to about 900 metres inland. Across it flows the Ogooué River. Gabon lies on the equator, so it is hot and rainy there. In its thick forests and rivers live snakes, monkeys, gorillas, elephants, crocodiles and hippopotamuses.

The people are mostly Negroes who live by agriculture and fishing. Some pygmies live in the forests. There are few towns and few roads; the chief ports are Port-Gentil and Libreville, the capital. Other towns are N'Djolé, Mouila, Franceville and Lambaréné. Gabon exports hardwoods, petroleum, uranium and manganese.

European slave-traders visited Gabon from the 15th to the 18th century, and later the French gradually established themselves there. Formerly part of French Equatorial Africa, Gabon became an independent republic in 1960, but kept close ties with France. The population is about 1,300,000.

**GAELIC** is the name for a group of languages spoken in the Highlands of Scotland, in Ireland and in the Isle of Man. The word is often used to mean only Scottish Gaelic, the other two languages being Erse (Irish Gaelic) and Manx. (See ERSE.) All three are among the ancient Celtic languages, which also include Welsh.

The Gaelic tongue originally spread to Scotland from Ireland, and the two forms of it are still alike; for instance, "our cow" is *or bò* in Scottish Gaelic and *ar m-bò* in Irish.

**GAINSBOROUGH, Thomas** (1727-1788).

Thomas Gainsborough was one of the greatest English portrait painters. He also painted landscapes, and in his pictures he often used original techniques. He did not often try to imitate other artists, as did some English painters of his time. When Gainsborough painted a portrait, too, he could not produce his best unless he was interested in the person he was portraying.

He was born at Sudbury, in Suffolk. As a boy he was very good at drawing and, according to one story, he made such a good portrait from memory of a thief he had seen robbing an orchard that the man was identified by it. Gainsborough's father sent him as an apprentice to a French painter and engraver in London, where he learnt the art of etching on copper plates.

In 1745 he went home to Sudbury, hoping to do landscape painting, but few people were willing to buy paintings of their country houses and gardens, so he painted portraits to earn his living. In 1760 Philip Thicknesse, who later wrote his life story, persuaded him to move to

"Mr. and Mrs. Andrews", painted about 1748-50, shows Gainsborough using a realistic natural background for a portrait.

Courtesy, Trustees of the National Gallery, London





*Courtesy, Henry E. Huntington Art Gallery*

Although Gainsborough said that his first love was landscape painting, he had to satisfy his wealthy clients by painting elegant portraits. The formal poses were often heightened by dramatic landscape settings. "The Blue Boy", a portrait of Jonathan Buttall, was painted in 1779.



Bath, the centre of the social life of the time, and arranged for him to be introduced to rich and important visitors. So splendidly did Gainsborough paint them that he soon became rich and famous, and in 1768 he was one of the first members of the newly founded Royal Academy.

Gainsborough moved to London in 1774. There he painted many famous people, including King George III, Richard Brinsley Sheridan the playwright, Dr. Samuel Johnson the writer, Mrs. Siddons the great actress and the statesmen William Pitt and Edmund Burke.

**GALAXIES.** In the sky at night a few dim clouds of light can be seen with the naked eye, and many more with telescopes. Some of these are great clouds of gases that give off light and are called nebulae. (*Nebula* is a Latin word for cloud.) Other hazy patches are made up of thousands of separate stars. Many of these star clouds belong to the Milky Way, of which our own solar system is a part (see **MILKY WAY**). Others are much larger and quite separate and lie far out in space beyond the Milky Way. These are the galaxies. Each galaxy is millions of millions of kilometres across and contains millions of stars. There seems no limit to the number of galaxies—several thousand million of them can be seen through the largest telescopes, and they are scattered through space in all directions as far as telescopes can reach.

Galaxies occur in several different shapes and sizes. A normal or large galaxy may be spiral, elliptical or irregular. A spiral galaxy is shaped like a Catherine wheel, with a bright collection of stars in the centre, and several “arms” of stars winding out from it. Spiral galaxies are among the grandest and most beautiful of all astronomical objects. They are also the most plentiful of the larger types. Elliptical galaxies are rounded groups of stars shaped like footballs or rugby balls. Irregular galaxies, as their name suggests, have no definite shape.

In addition to these larger types, there are vast numbers of much smaller systems, referred to as dwarf galaxies. These are often similar to elliptical galaxies, but with far fewer stars. It is possible that the universe is filled with such dwarf galaxies, which are very difficult to see

because they are so faint.

The size of galaxies varies greatly depending on type. The largest ones known are giant elliptical galaxies with ten million million stars. They have diameters exceeding a million light-years. (A light-year is the distance that light travels in a year, more than 9.5 million million kilometres.) At the other end of the range, the dwarf galaxies have as few as a million stars, and may extend for less than five thousand light years.

Our Milky Way is itself a galaxy of the spiral type. It contains about a hundred thousand million stars, which is a lot for a spiral galaxy. It also contains a lot of dust and gas clouds. The spiral arms are almost hidden by clouds and cannot easily be seen through an ordinary telescope. They have been mapped out, however, by radio and infrared telescopes which can penetrate the dust (see **RADIO ASTRONOMY**).

Apart from the Milky Way three other galaxies are visible to the naked eye. They are the great galaxy in Andromeda, and the two Magellanic Clouds, the Large and Small. The Andromeda galaxy is a spiral, while the Magellanic Clouds are irregular galaxies. The Andromeda galaxy is in the sky north of the equator and can easily be seen from Great Britain on a clear night. The Magellanic Clouds are in the southern sky and cannot be seen from Great Britain.

The Magellanic Clouds are the nearest galaxies to the Earth, being about 150,000 light-years away. The Andromeda galaxy is about 2,000,000 light-years away. These three, as well as our own Milky Way, all belong to a group of neighbouring galaxies called the “local group” or “local cluster”. There are 25 or more galaxies in the local cluster altogether, but all the others are too faint to be seen without a telescope. The local cluster is over 4,000,000 light-years across, and the Andromeda galaxy (about twice as big as the Milky Way) is the biggest galaxy in the local cluster.

Most galaxies belong to clusters, and it may be that all of them do. The nearest large cluster to the Milky Way is a much larger one in the constellation Virgo. This cluster is about 70,000,000 light-years away, and contains over 500 galaxies. The most distant galaxies that have



*Copyright: California Institute of Technology and Carnegie Institution of Washington. Photograph: courtesy of the Hale Observatory*

The Great Spiral in Andromeda. This is a spiral galaxy which is seen from Earth sideways-on. The bright spots at the lower left and above the centre of the picture are small elliptical galaxies associated with the Andromeda galaxy.



been photographed belong to clusters over 2,000,000,000 light-years away.

The galaxies in a cluster move about all the time, although the cluster as a whole keeps together. The individual stars practically never collide with one another because within each galaxy they are quite widely separated. Two galaxies can even pass right through each other, but this happens very rarely. Galaxies sometimes have a bright nucleus in the centre, where the stars may be packed much closer together. Some very mysterious galaxies emit powerful signals and it seems as though there has been a colossal explosion in the nucleus. Astronomers do not understand what causes these outbursts, but they are certainly the most spectacular events known to occur in the universe.

Astronomers have discovered that all the other clusters seem to be moving away from our local cluster. This is known as "the expansion of the universe", and you can read more about it in **UNIVERSE**. (See also **ASTRONOMY** and **STAR**.)

**GALILEE** in the time of Christ was the little northern province of Palestine. It is now the northern part of the state of Israel. The country is mountainous but fertile, since the rainfall is more plentiful than in other parts of Israel. (See the article **ISRAEL**.)

The chief interest of Galilee is historic. It was there that the Holy Family settled in the town of Nazareth, and there the boy Jesus worked as a carpenter with His foster father Joseph. In Galilee's hills and on the shores of its sea He did His preaching, chose His apostles and

shaped Christianity. People still fish in the Sea of Galilee, the big lake through which the Jordan River flows and where Christ once calmed the stormy waves, walked upon the waters and brought about the miraculous draught of fishes. On its western shore lay the town of Capernaum where Christ once preached in the synagogue and performed many miracles.

**GALILEO GALILEI** (1564–1642). Galileo, who is nearly always known by his first name, was a great Italian scientist and astronomer.

Galileo was the son of a musician and was born at Pisa, Italy. He was sent to school at the monastery of Vallombrosa, near Florence, and at this time disliked science. He had many gifts and became a good musician as well as an amateur painter.

In 1581 Galileo went to study medicine at Pisa University. It is said that once, as he watched a hanging lamp swinging to and fro in the Cathedral of Pisa, he realized that it took almost exactly the same time for each swing, whether the swings were large or small. From this he saw that a pendulum could be used to measure time. (See **PENDULUM**.) Soon afterwards he persuaded his father to let him study mathematics and science instead of medicine.

In 1589 Galileo became lecturer in mathematics at Pisa University and began his research into the theory of motion. In 1592 he became professor of mathematics at Padua, where he remained until 1610, performing much of his greatest work. In about 1604 he proved theoretically that falling bodies obey the law of uniformly accelerated motion. This states that all objects fall at the same speed, whatever their mass. Previously people had thought that heavy objects fell to Earth more quickly than light objects.

In 1609 Galileo learned of the invention of the telescope (see **TELESCOPE**) and immediately built himself a telescope at Padua. The first one he made had a magnification of 3 (it made things look 3 times bigger than they did to the naked eye), but he soon made one with a magnification of 32. This helped him to make a number of astronomical discoveries that were impossible without a telescope, which are ex-



*Courtesy, Israel Government Tourist Office*

A kibbutz (co-operative farm) beside the Sea of Galilee.



Erich Lessing-Magnum

This reconstruction of Galileo's study shows some of his books and instruments, including an experimental clock mechanism, a telescope and a pendulum.

plained in the article ASTRONOMY. On January 7, 1610, he became the first man ever to see that the planet Jupiter has four moons revolving round it. At this time most people still believed in the theory of Ptolemy, the Greek astronomer of the 2nd century A.D. who had taught that the Earth was the centre of the universe and that all the other heavenly bodies circled round it. However, Nicolaus Copernicus (1473–1543), a Polish astronomer, had said that the Sun, not the Earth, is the centre of the solar system and that the planets, including the Earth, all revolve round it. (See COPERNICUS; PTOLEMY; SOLAR SYSTEM.) Galileo's discovery gave support to Copernicus' idea.

In 1610 Galileo left Padua to become "first philosopher and mathematician" to the Duke of Tuscany. This gave him more time for research and in 1613 he published a book called *Letters on the Sunspots*, and in it declared his belief in Copernicus' theory that the Earth goes round the

Sun. This brought Galileo into conflict with the Roman Catholic Church which still believed in the teaching of Ptolemy and said that all Christians were to believe in it. In 1616 the Pope made him promise not to hold, teach or defend the ideas of Copernicus. Galileo went to live quietly in Florence and continued his studies, but he did not write very much. In 1632, however, he published his *Dialogue on the two Principal Systems of the World* in which he again supported the theory of Copernicus. The book was praised all over Europe, but Galileo was called to Rome by the Inquisition (see INQUISITION) and ordered, under threat of torture, to deny his beliefs. He did so, and was permitted to return to his own house, on condition that he did not leave it.

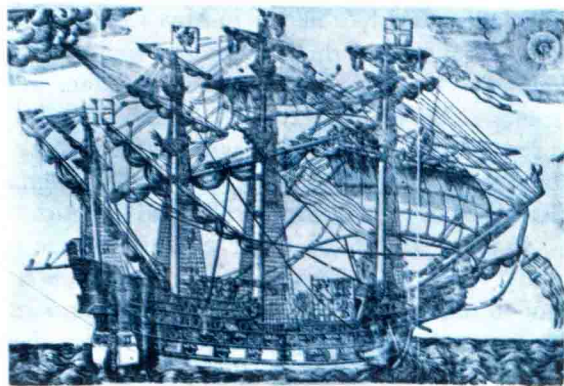
In 1638 Galileo published another important book, the *Dialogue on Two New Sciences*, which explained his ideas about the new science of mechanics (see MECHANICS), later developed by



Sir Isaac Newton. He went blind in 1637 but continued his work up to his death in 1642.

**GALLEON** is a word used for the large men-of-war of the later part of the 16th century and the beginning of the 17th. Not all galleons were Spanish. One of the earliest and largest was the Portuguese "Sao Joao" of 1534, and the new type was very soon adopted in all European fleets. The galleon was longer, narrower and less built up at the ends than the carrack which came before it, and it had a low projecting beak like that of a fighting galley instead of the overhanging forecastle of earlier ships. Most galleons had four masts, with square sails (see SHIPS) on the fore and main masts and lateens (triangular sails) on the two mizzen masts.

The "Ark Royal" and all the larger English ships that fought against the Spanish Armada in 1588 were galleons. When once the galleon had become the usual kind of big ship, the actual name gradually gave place in England to the name "ship" or "great ship", but in Portugal ships and galleons were still distinguished from



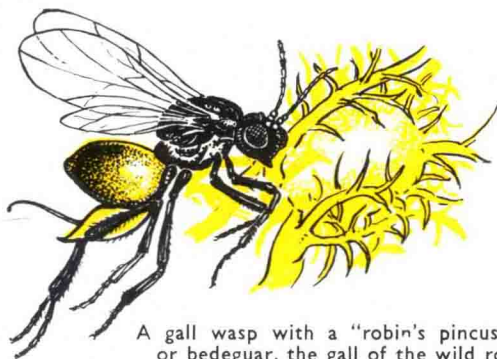
*Courtesy, Trustees of the British Museum*

The "Ark Royal" was the flag-ship of Queen Elizabeth's navy. This is a 16th-century woodcut of the great galleon.

one another as late as 1670. Even in 1743 the Spanish treasure ship captured in the Pacific by Commodore George Anson was called a galleon, but by then both the type and the name were really out of date.

**GALL WASP.** The very small, mostly black wasps that pass the grub stage of their lives inside the leaves, buds, shoots and even the roots of

plants are called gall wasps. Wherever the grub happens to be it causes the living tissue, or "flesh", of the plant to form a kind of swelling called a gall. The grub is found inside this gall,



A gall wasp with a "robin's pincushion" or bedeguar, the gall of the wild rose.

and each kind of wasp has its own special kind of gall. One of the gall wasps that live on oak trees causes a swelling that is just like a hard, round marble, while other kinds make little galls in the shape of buttons on the undersides of oak leaves. Another makes the familiar "robin's pincushion", properly called a bedeguar, on the wild roses of the English countryside. This kind looks just like a tangle of red wool or red moss.

Gall wasps often have two broods in one year, but the wasps of each brood are sometimes so different that it is hard to see that they belong to the same species, or kind, of insect. For example, in one species wingless females spend the winter in galls on the roots of oak trees and then climb up the tree and lay their eggs in the buds. Here the grubs cause the growth of the well-known "oak apples" from which, in July, both male and female wasps appear. (There is a separate article OAK APPLE; it is not the same as the gall shaped like a marble mentioned above.) Some of these females have four wings, like the males, and they lay their eggs in the roots of the oak, where another brood of wingless females will again appear in the following spring.

Although the grubs of the gall wasps feed on living plants, they seldom cause any serious damage. In fact, man has even found a use for some kinds of galls. One in particular is gathered in parts of Europe to provide a dye, or colouring matter, which is used in leather making.

In spite of its being so well protected inside its



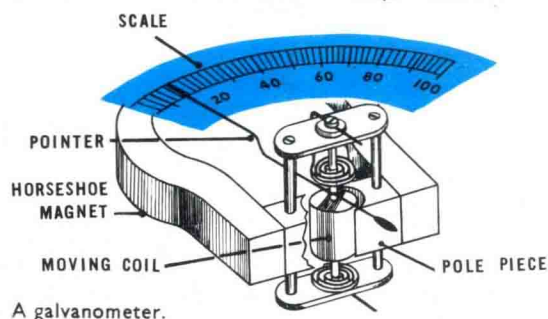
## GALVANOMETER

gall, the grub of the gall wasp has many insect enemies, especially other small wasps that manage to lay their eggs in it and use it as food for their own young.

**GALVANOMETER.** An instrument used to detect an electric current is called a galvanometer. It can be used to measure the strength of the current, although in everyday work that is done with an ammeter (see **AMMETER**) and the galvanometer is generally a more delicate instrument used with fairly small currents. The instrument was given its name in honour of the Italian Luigi Galvani, one of the early workers on electricity.

In 1820 the Danish scientist H. C. Oersted found that a wire carrying an electric current would make the needle of a magnetic compass near it point in another direction. A galvanometer may be made in this way, using a coil of wire surrounding a pivoted magnetic needle. When an electric current is passed through the coil, the angle the needle turns through is a measure of the strength of the current—the greater the current the greater the angle through which the needle turns.

Other galvanometers have a coil of wire which is pivoted between the poles (or two ends) of a powerful horseshoe magnet. When a current is passed through the coil it becomes a magnet and tries to turn itself into line with the poles of the horseshoe magnet. The coil may carry a pointer which moves over a scale to show the size of the current, or it may carry a small mirror arranged to reflect a beam of light on to a scale fixed some distance away. The beam of light moves quite a long way for a very small movement of the coil, and such a galvanometer can therefore detect tiny currents.



**GALWAY** is a county in the province of Connaught in the Republic of Ireland. It includes the beautiful district of Connemara and the Aran Islands. There is more about Galway in the article **CONNAUGHT**. (See also **ARAN, ISLANDS OF** and **CONNEMARA**.)

**GAMA, Vasco da** (?1460–1524). Many of the world's great seamen and explorers have been Portuguese and one of the greatest of these was Vasco da Gama, the first man to find a sea route to India. Little is known of his early life, yet he must have had considerable experience as a mariner before King Emanuel I of Portugal sent him on his great journey with four ships.

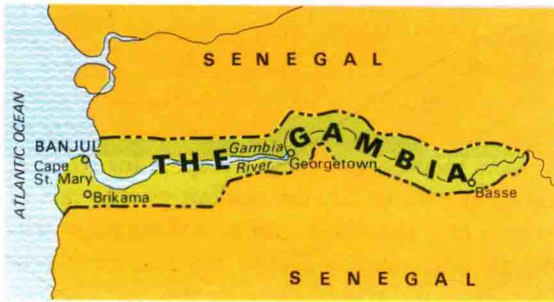
Da Gama sailed from Lisbon, the Portuguese capital, in July 1497 and by November he had safely reached the Cape of Good Hope. Soon passing the farthest point reached by earlier Portuguese captains, he and his men sailed on, turning northwards along the African coast until they came to the Arab port of Malindi in what is now Kenya. An Arab pilot guided them on the last stage of their journey to India and they landed on its southwestern shore at Calicut (now officially called Kozhikode) in May 1498. When the Indians asked them what they sought, they replied, "We come in search of Christians and spices". Da Gama returned to Lisbon in July 1499 with two ships laden with spices. He also brought much information about India, and the King rewarded him with wealth and honours.

In 1502 Da Gama made another voyage to India with a fleet of ten ships. This time he went out to take vengeance on jealous Arab and Indian merchants and on the people whom they had stirred up to murder Portuguese traders in Calicut. Having bombarded the town in a savage manner he went on to set up new trading stations at Cochin and other places to the south. For all this he was again rewarded by his king. After a long interval he was sent out to India again as governor of the colonies which he had helped to start, but he died soon afterwards.

**GAMBIA, THE.** In the reign of King James I some adventurous merchants of London obtained a small island at the mouth of the Gambia River and set up a trading post there.

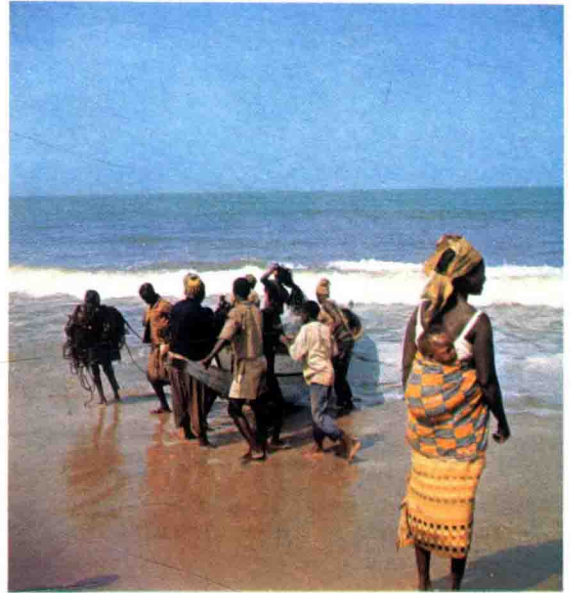
It was Britain's first foothold in Africa. In 1816 a nearby island, called St. Mary's Island, was acquired and a town was built on it. This was Bathurst. Renamed Banjul in 1973, it is now the capital and seaport of The Gambia. During the 19th century, merchants founded other trading posts up the river until, in 1889, 470 kilometres of the river and strips about 11 kilometres wide on each side were recognized as British territory. That is why today The Gambia looks on the map like a long narrow tongue pointing into Senegal.

The Gambia has a fairly dry tropical climate, with a wet and dry season each year. The rain falls mostly during the summer and is heaviest near the coast. During the dry season the warm, dusty wind called the harmattan blows from the Sahara Desert. The vegetation is mainly savanna (tropical grassland), with forest along the river banks. The land near the river is low-lying and often flooded in the rainy season. For long stretches there are mangrove swamps (see MANGROVE), in which malaria-carrying mosquitoes breed. Around Banjul are thick palm forests.



### FACTS ABOUT THE GAMBIA

- AREA: 10,360 square kilometres.
- POPULATION: 695,000.
- KIND OF COUNTRY: Independent republic; member of the Commonwealth of Nations.
- CAPITAL: Banjul on St. Mary's Island.
- GEOGRAPHICAL FEATURES: The country forms a narrow strip on both banks of the Gambia River, with fertile stretches of valley floor between the sandy hills of the plateau.
- NATURAL PRODUCTS: Ground-nuts, palm kernels, fish.
- IMPORTANT TOWNS: Banjul, Brikama, Mansa Konko, Georgetown, Basse.
- EDUCATION: School attendance is not compulsory.



Picturepoint

Fishermen at work on the coast of The Gambia.

Crocodiles are found in the rivers and lagoons, as are the less common hippopotamus and manatee. On the savanna, farming has driven away many of the larger animals such as antelopes and gazelles, but monkeys are common and often do damage to farms.

The people are Negroes and come from five main tribes, the Mandingo, the Wolof, the Jola, the Serahuli and the Fulas. The main religions are Christianity and Islam. Most of the people are farmers. Along the upper and middle parts of the river rice growing is important, while cattle are kept in the inland region. Maize and millet are also grown, but the most important crop is ground-nuts (peanuts). The Gambia's economy is almost totally dependent on the export of ground-nuts and ground-nut oil. Many Senegalese come to The Gambia to help with the ground-nut crop. Other exports include palm kernels, dried fish and hides. There is some fishing in coastal and river waters. The Gambia has little industry.

The chief port is Banjul, the capital, but ocean-going vessels can navigate the Gambia River as far as Kuntaur, 240 kilometres upstream. River vessels trade as far as Fatoto, 460 kilometres upstream. Roads are still poor although a road links The Gambia with Senegal.



## GAMBLING

The Gambia was granted internal self-government in 1963 and became independent in 1965. In 1970 it became a republic. In 1982 The Gambia and Senegal formed a confederation called Senegambia. They agreed to work closely together in certain areas such as defence and foreign policy, though the two countries remained independent.

**GAMBLING.** When a person wagers, or bets, 50 pence that a certain horse will win a race, he is a gambler. In other words he has risked something of value on a matter affected by chance. The same is true if he stakes money on a game of cards—this is called gaming—or if he buys a ticket in a lottery or raffle.

Men have gambled since the earliest times. Gaming boards were in use 3,500 years ago and spinning discs were used in China for a form of the game known as roulette. The ancient Greeks and Egyptians gambled with knuckle bones painted as four-sided dice and the Arabs were the first people to use the six-sided dice. (See DICE.)

Among the first laws ever made were laws against gaming and in 1388 the English parliament passed an act to prevent men spending Sundays on games of dice, quoits and tennis, in order that they might use the time to practise archery instead. The law of England still prevents such things as betting in the street, but much gambling is legal.

Modern gambling has become a big industry. People can place bets with bookmakers on horse racing and greyhound racing, and gamble on the results of football matches by taking part in the football pools. Some countries have gigantic lotteries. The government raises money by selling numbered tickets to the public and paying only some of the money back in prizes to people holding the winning tickets, which are drawn at random. Thousands of people play in gambling casinos and their own homes games such as dice, pontoon, blackjack, roulette, *chemin de fer*, poker and solo whist.

**GAMES AND SPORTS.** On the opposite page you will see a list of games and sports which have separate articles in this encyclopaedia.

**GANDHI, Mohandas Karamchand** (1869–1948). The man who led the people of India to independence from Britain was Mohandas Karamchand Gandhi. Indians knew him as the Mahatma, or “Great Soul”, and his ideas and leadership made people all over the world admire him.

Gandhi was born on October 2, 1869, at Porbandar, on the western coast of India. According to the Indian custom of the time, he was married when a boy of 12. At 19 he went to study law in London, where he became a barrister. Before crossing the seas he promised his mother that he would never eat meat or drink alcohol or smoke tobacco, and all his life he avoided not only these but all other luxuries as well.

Gandhi practised law in Bombay until 1893, when an Indian firm in South Africa sent for him to help in a law suit. He was so distressed at the way Indian settlers were treated by the white people in South Africa that he stayed in the country to fight their cause for the next 21 years. He was imprisoned many times by the government. One occasion was in 1913, when he led more than 2,000 Indians across the border between the Transvaal and Natal in defiance of a South African law which forbade Indians to move from one province to another.

Back in India, Gandhi became the fearless champion of the weak and oppressed. He tried to make men have a greater respect for women, and generally to lift the Indian people out of poverty and ignorance and give them more self-respect. Although a Hindu himself, he fought the evils of the Hindu caste system (see CASTE), under which millions were doomed to poverty because their parents belonged to the lowest caste, or class of society. These people were called “Untouchables” but Gandhi used to sit among them and called them “Sons of God”.

The Mahatma used to wear the same simple dress as poor village peasants and travelled about urging them to use the *charka*, or spinning wheel, and to make a little cloth every day as he did himself, so that they need not depend on shoddy town-made goods.

By 1918 Gandhi had become the real leader of the great National Congress, the party which was working to free India from British





*Kunsthistorisches Museum, Vienna*

"Children's Games", a detail from the painting by the Flemish artist Pieter Bruegel.

## ARTICLES TO READ ON GAMES AND SPORTS

ARCHERY  
ASSOCIATION  
FOOTBALL  
ATHLETICS  
BACKGAMMON  
BADMINTON  
BASEBALL  
BASKETBALL  
BILLIARDS AND  
SNOOKER  
BOWLS  
BOXING  
CANOEING  
CARDS, PLAYING  
CHESS  
CONKERS  
CRICKET  
CROQUET  
CROSS COUNTRY  
CURLING

CYCLING  
DARTS  
DICE  
DOMINOES  
DRAUGHTS  
FALCONRY  
FENCING  
FISHING  
FIVES  
FOOTBALL  
FRENCH CRICKET  
GLIDING  
GOLF  
GYMNASTICS  
HANG GLIDING  
HIGHLAND GAMES  
HOCKEY  
HOPSCOTCH  
HORSE RACING  
HURLING

ICE HOCKEY  
ICE SKATING  
INDOOR AND  
OUTDOOR GAMES  
JUDO  
LACROSSE  
LAWN TENNIS  
MARBLES  
MOTOR RACING  
MOUNTAINEERING  
NETBALL  
ORIENTEERING  
PARTY GAMES  
POLO  
QUOITS  
RACKETS  
RIDING  
ROUNDERS  
ROWING  
RUGBY FOOTBALL

SAILING  
SHOOTING  
SHOVE HALF PENNY  
SHOW JUMPING  
SKATING  
SKIING  
SKIPPING  
SKITTLES  
SPEEDWAY RACING  
SQUASH RACKETS  
SURFING  
SWIMMING  
TABLE TENNIS  
TENNIS  
VOLLEYBALL  
WATER POLO  
WEIGHT LIFTING  
WINTER SPORTS  
WRESTLING  
YACHT RACING



## GANDHI

control. He and his followers encouraged the people to practise "passive resistance" against the government, which meant that they were to oppose the government without using force. For example, he wanted to protest against the law which forbade anybody but the government to produce salt and so led his followers on a long march to the coast in order to obtain salt from sea water. This kind of demonstration often brought his followers into trouble with the police and sometimes blood was shed.

From time to time Gandhi announced that he would fast (that is, go without food) until the government or the Hindus themselves changed their minds on some matter, and this fasting gave



*Radio Times Hulton Picture Library*

Gandhi in the simple dress that he spun and wove himself.

great anxiety to all concerned, for there was sometimes a risk that he would die. However, although he trained himself for the struggle for India's independence, he never lost his sense of humour and he was always a great lover of children. He was quite firm about not using violence, but in 1942 he started a "Quit India" movement against the British. There was disorder and bloodshed and Gandhi was again

imprisoned. He was not released until 1944.

When the British eventually withdrew from India in 1947 there was such violence between Hindus and Moslems that probably as many as 1,000,000 people lost their lives. Gandhi, who had always wanted an independent India which was united and not divided into two, was deeply grieved by the massacres and did his very best to stop them. He was about to begin one of his open-air prayer meetings in New Delhi on January 30, 1948, when he was shot dead by a Hindu fanatic. Gandhi's tragic death had one good effect, for it filled the Indian people with such shame that Hindus and Moslems became less violent towards each other. His body was cremated and the ashes were cast into the Jumna River which flows into the sacred Ganges.

His advice to his people had been to say every morning, "I shall not fear anyone on earth. I shall only fear God. I shall not bear ill-will towards anyone. I shall not submit to injustice from anyone. I shall conquer untruth by truth and in resisting untruth I shall put up with all suffering." To millions of Hindus he had been more than a national hero: he had been a saint. Gandhi himself said, "The only virtue I claim is truth and non-violence."

**GANGES RIVER.** To die on the banks of the River Ganges in India and to have one's ashes cast on its waters, is for a Hindu to be sure of a happy future life. Bathing in its waters is believed to wash away sins and cure disease. Some places on its banks are more holy than others. There is Hardwar for instance, where the cold stream, fed from the snow and ice, breaks out from the Himalaya Mountains and enters the great plain of northern India. About 1,000 kilometres lower down, at the holy city of Varanasi (Benares), the banks are lined with temples from which great stairs stretch down to the river. There in the early morning thousands of pilgrims wait, some with sick relatives carried from distant villages, so that they may step down and bathe when the first rays of sun touch the sacred waters. (See VARANASI.)

Indians often call the river Mother Ganges. It is a good name, for the food of millions of people depends on its waters. When the summer

rains join with the melted snows from the Himalayas, the smaller rivers fill and cause the Ganges to rise and flood the low parts of the plain, soaking the soil so that it is ready for planting. Sometimes the river rises angrily and washes away a bridge or perhaps a village, but always when the flood is past it has left a coating of rich new soil behind. In the dry season its waters are sometimes led to the fields by ditches so that a second crop can be grown.

From the central Himalayas the Ganges flows for about 2,500 kilometres to its mouth at the head of the Bay of Bengal. Thousands of villages are scattered over the great plain through which it flows, and there are more people living here than in any other part of India. Among the tributaries of the Ganges is the Jumna (or Yamuna) River, on which stand the historic cities of Delhi and Agra. The Jumna joins the Ganges at Allahabad. Other tributaries, fed by the Himalayan snows, flow into the Ganges from the north. The river journeys eastwards, into Bangladesh, and at last breaks into many channels forming a great delta 300 kilometres wide. (See DELTA.) The Ganges is joined by the mighty Brahmaputra River, and the combined stream, now called the Padma, flows into the Bay of Bengal. The most westerly channel of the delta, and the most important for shipping, is the Hooghly. The Hooghly flows south on the Indian side of the border and on its banks stands the great city of Calcutta. (See CALCUTTA.)



*Ian Berry-Magnum*

The ghats (stairs) that rise from the Ganges at Varanasi.

**GANNET.** The large sea birds known as gannets have long pointed wings, long wedge-shaped tails and strong pointed beaks. The kind



*Eric Hosking*

The gannet uses its strong, pointed beak to catch fish.

seen near the shores of the British Isles is also called the solan goose. It is a big white bird, about 90 centimetres long, with black wing tips, yellowish buff head and neck and a dark line extending backwards from the eye which makes the bird look rather as if it is wearing spectacles.

Gannets are wonderful divers. They flap and glide easily above the sea and then suddenly, from as much as 30 metres in the air, they plunge down head first, closing their wings as they hit the water with a great splash to catch a fish, which they swallow whole. They spend most of their time at sea but always return to the land to breed in huge colonies, or groups, in the North Atlantic. Colonies of gannets can be found in Canada, Iceland and the Faeroe Islands, as well as in a number of places in the British Isles, including the Bass Rock in the Firth of Forth, Scotland, and the island of Grassholm which is off the coast of Dyfed, Wales. Here, from March onwards, the birds crowd closely and noisily together, building their nests of sticks and seaweed and laying in April or May a single blue egg covered with a chalky white substance. When first hatched, the young are naked with black skin, but later they are