Assembly of Divines at Westminster. The parts of the Assembly's annotations upon the Bible which were executed by him are those on Isaiah, Jeremiah, and the Lamentations. At Westminster he disapproved of the introduction of the Covenant, and declared himself in favour of Episcopacy. He was also one of the forty-seven London clergymen who disapproved of the trial of Charles I. He died in 1654. His principal works, besides some volumes of sermons, are —*On the Nature and Use of Lots*, 1616, a curious treatise which gave rise to much controversy; *Dissertatio de Stylo Novi Testamenti*, 1648; *Cinnus, sive Adversaria Miscellanea, in quibus Sacræ Scripturæ primo, deinde aliorum Scriptorum, locis aliquam multis lux redditur*, 1651, to which was afterwards subjoined *Adversaria Posthuma*; and his edition of *Marcus Antoninus*, which, according to Hallam, is the "earliest edition of any classical writer published in England with original annotations," and for the period at which it was written possesses remarkable merit. The best edition of his works is that published at Utrecht in 1668.

GATCHINA, a town of Russia, in the government of St Petersburg and district of Tsarskoselo, 29 miles W. of St Petersburg, in 59° 34′ N. lat. and 30° 6′ E. long. It is situated in a flat, well-wooded, and partly marshy district, and on the south side of the town are two lakes, distinguished as the White and the Black. Among its more important builings are the imperial palace, which was founded in 1770 by Prince Orloff, and executed according to the plans of the Italian architect Rinaldi, the four Greek churches, the Protestant church, a foundling asylum, a military orphanage founded in 1803 by Maria Feodorina, a school for horticulture, a public hospital for 1500 patients, founded by Paul I., an asylum for the families of twenty blind men, and another for fifty poor peasants. In one of the Greek churches are preserved several relics originally brought from Rhodes to Malta by the grand-master Lille Adam; and the so-called priory is shown where the knights of Malta assembled under the mastership of the emperor Paul I. Gatchina is a junction on the railway between St Petersburg and Warsaw, but its trade is of no great development. Among the few industrial establishments is a porcelain factory. The inhabitants in 1860 numbered 9184, of whom 2255 were members of the National Church, 1431 Protestants, 182 Catholics, and 50 Jews. By 1867 the total had sunk to 8337; but according to the *St Petersburg Calendar* for 1878 it has again risen to 8890.

GATES, Horatio (1728–1806), an American general, was born at Maldon in Essex, England, in 1728. He entered the English army at an early age, and soon obtained considerable promotion. He was severely wounded while accompanying General Braddock in his unfortunate expedition against the French settlements on the Ohio in 1755, and he took part in the expedition against Martinico in January 1762. After the peace of 1763 he purchased an estate in Virginia, where he resided till the commencement of the revolutionary war in 1775, when he was named by congress adjutant-general. In 1776 he was appointed to command the army on Lake Champlain; but, his conduct there not having been approved of, he was superseded in the following spring; yet in August he was sent to oppose General Burgoyne, whom he totally defeated on the 16th of October, and compelled to surrender his whole army,—an achievement which was, however, largely due to the previous manœuvres of Schuyler, whom Gates superseded. After obtaining the chief command in the southern districts, Gates was totally defeated at Camden, in South Carolina, by Lord Cornwallis, on the 16th of August 1780. On this account he was superseded by General Greene; but an investigation into his conduct terminated in acquitting him fully and honourably of all blame, on the ground that his defeat had been unavoidable in the disorganized state of the army under his command. After this he again retired to his Virginian estate, whence he removed to New York in 1800. On his arrival he was immediately admitted to the freedom of the city, and then elected a member of the State legislature. Before his departure from Virginia he granted emancipation to his slaves, accompanying their manumission with a provision for those who needed assistance. He died on the 10th of April 1806.

GATESHEAD, a municipal and parliamentary borough and market-town of England, county of Durham, is situated on the right bank of the Tyne, opposite Newcastle, of which it practically forms a part, being united with it by three bridges. The town consists of two principal and nearly parallel streets, from which others diverge in various directions. A great fire which occurred in 1854 was taken advantage of for the carrying out of improvements in the old part of the town, and it is now much less crowded than formerly. In the suburbs there are a considerable number of fine mansions. The parish church, recently restored, is an ancient cruciform edifice surmounted by a lofty tower; and several of the other churches and chapels are handsome buildings. The Wesleyan and Primitive Methodists, the Congregationalists, Baptists, Presbyterians, and Roman Catholics are all represented. The town possesses a fine cemetery, a well laid out public park, a new town-hall, a grammar school, a hospital (St Edmund's) for fifteen indigent persons, a reformatory, a mechanics' institute, and a dispensary. There are large iron works (including foundries and factories for engines, boilers, chains, and cables), shipbuilding yards, glass manufactories, chemical, soap, and candle works, brick and tile works, breweries and tanneries. The town also contains the principal depôt of the North-Eastern Railway, with large stores and locomotive works. Extensive coal mines exist in the vicinity; and at Gateshead Fell are large quarries for grindstones, which are much esteemed and are exported to all parts of the world.

The large number of Roman relics found at Gateshead would seem to indicate that it was originally an outwork of the Roman station at Newcastle. The name is mentioned as early as 1080, and in 1164 the bishop of Durham granted to its burgesses equal privileges with those of Newcastle. On the dissolution of the see of Durham in 1552, an Act was passed for uniting the town to the borough of Newcastle, but on the restoration of the rights of the bishopric it was again placed under that jurisdiction, being governed, from 1317 to 1695, with the exception of that short intermission, by a bailiff nominated by the bishop. From 1695 to 1826, when it became a municipal borough, it was governed by two stewards, elected by the inhabitants. Gateshead returns one member to parliament. The population of the municipal borough, which in 1861 was 33,587, was 48,627 in 1871.

GATH, one of the five chief cities of the Philistines. Its site appears to have been known in the 4th century, but the name is now lost. Eusebius (in the *Onomasticon*) places it near the road from Eleutheropolis (Beit Jibrîn) to Diospolis (Ludd) about 5 Roman miles from the former. The Roman road between these two towns is still traceable, and its milestones remain in places. East of the road at the required distance rises a white cliff, almost isolated, 300 feet high, and full of caves. On the top is the little mud village of Tell-es-Sâfi ("the shining mound"), and round it are the mounds which mark the site of the crusading castle of Blanchegarde (Alba Custodia), built in 1144. Tell-es-Sâfi was known by its present name as far back as the 12th century, but it appears probable that the strong site here existing represents the ancient Gath. The cliff stands on the south bank of the valley of Elah, and Gath appears to have been near this valley (1 Sam. xvii. 2, 52). The name Gath, meaning a "winepress," designates several other places in Palestine.

GATTY, Mrs Alfred (1809–1873), daughter of the Rev. Dr Scott, chaplain to Lord Nelson, was born at Burnham, Essex, in 1809. In 1839 Margaret Scott was married to the Rev. Alfred Gatty, D.D., vicar of Ecclesfield near Sheffield, sub-dean of York cathedral, and the author of various works both secular and religious. In 1842 she published in association with her husband a life of her father, the Rev. Dr Scott; but her first independent work was *The Fairy Godmother and other Tales*, which appeared in 1851. This was followed in 1855 by the first of five volumes of *Parables from Nature*, the last being published in 1871. It is under the *nom de plume* of Aunt Judy, as a pleasant and instructive writer for children, that Mrs Gatty is most widely known. Previous to commencing *Aunt Judy's Magazine* in May 1866, she had brought out *Aunt Judy's Tales* and *Aunt Judy's Letters*; and among the other children's books which she subsequently published, were *Aunt Judy's Song Book for Children* and *The Mother's Book of Poetry*. Besides other excellences her children's books are specially characterized by wholesomeness of sentiment and cheerful humour. Her miscellaneous writings include, in addition to several volumes of tales, *The Old Folks from Home*, an account of a holiday ramble in Ireland; *The Travels and Adventures of Dr Wolff the Missionary*, in which she was assisted by her husband; *British Sea Weeds*; *Waifs and Strays of Natural History*; *A Book of Emblems*; and *The Book of Sun-Dials*. She died October 3, 1873.

GAUDEN, John (1605–1662), the reputed author of the *Eikon Basilike*, was born in 1605 at Mayfield in Essex, of which parish his father was vicar. He was educated at Bury St Edmunds, and afterwards at St John's College, Cambridge. He obtained about 1630 the vicarage of Chippenham in Cambridgeshire, and the rectory of Brightwell in Berkshire. At the breaking out of the civil war he was domestic chaplain to Robert Rich, second earl of Warwick, one of the parliamentary leaders, and, being selected to preach before the House of Commons in 1640, was presented with a silver tankard for his discourse. In 1641 he was appointed by the parliament to the deanery of Bocking, in Essex. He became master of the Temple in 1659, in succession to Dr Ralph Brownrigg, bishop of Exeter, and after the Restoration in November 1660 was appointed to the same diocese. Between 1642, the date of his first printed work, and 1660 he published some thirteen or more books, of which number, however, only one appeared prior to the execution of the king. Soon after his appointment to the see of Exeter, he privately laid claim to the authorship of the *Eikon Basilike*, a work commonly attributed at the time to Charles I. This claim Gauden put forth in a correspondence with the Lord Chancellor Hyde, earl of Clarendon, and the earl of Bristol, from 21st December 1660 to 31st March 1662. The letters of Gauden among them have been published in Dr Maty's *Review* in 1782, and again in the Appendix to vol. iii. of the *Clarendon Papers*. In the year 1693 a Mr Arthur North of London, who had married a sister of Dr Gauden's daughter-in-law, published a series of letters which he had found among his sister-in-law's papers, and which added materially to the strength of the bishop's claim. They consisted of the other side of the correspondence referred to above, viz., a letter from Secretary Sir Edward Nicholas to Gauden in January 1660–1, two from the bishop to Chancellor Hyde in December 1661 and the duke of York in January 1661–2, and one from Hyde to the bishop in March 1661–2. These letters, however, have been regarded with considerable suspicion by late writers on the subject, and have even been pronounced to be forgeries by some, who have pointed out that the two letters written by Gauden himself to Clarendon and the duke of York were found in the bishop's house, not among the papers of the persons to whom they were directed. The letter also from Clarendon to Gauden, though written nine months after his obtaining his earldom, is signed Edward Hyde, a blundering anachronism which points to the unskilful hand of a forger. The whole question of the claims of Charles I. and Dr Gauden was discussed at great length and with considerable ability and ingenuity from 1824 to 1829 by Dr Christopher Wordsworth, master of Trinity College, Cambridge, on behalf of the king, and the Rev. H. J. Todd on the side of Dr Gauden. Fresh evidence, however, has lately turned up in the shape of letters and papers of Charles II. and his ministers, written soon after the execution of the king, which go far to invalidate if not entirely destroy the claim of Dr Gauden, and prove that those persons to whom he most confidently appealed in support of his pretensions were the strongest upholders of the king's authorship at the time immediately subsequent to the appearance of the work. In 1662, on the death of Brian Duppa, bishop of Winchester, Dr Gauden applied to be translated from Exeter to that see, but his claims were set aside in favour of George Morley, bishop of Worcester, and the vacancy thus created was filled by the bishop of Exeter. He only lived four months after this last promotion, and dying on 20th September 1662, was buried in Worcester Cathedral. His will is preserved in the Prerogative Office of Canterbury.

He left a widow, the daughter of Sir William Russell of Chippenham, who after her husband's death wrote a letter to her son John on the subject of the king's book, and enclosed in it a narrative of the whole claim. This was published with the correspondence mentioned above by Mr North in 1693. She also erected a monument to the bishop's memory in Worcester Cathedral, representing him with the *Eikon Basilike* in his hand.

GAUDICHAUD-BEAUPRÉ, Charles (1789–1854), a French botanist, was born at Angoulême, September 4, 1789. He studied pharmacy first in the shop of a brother-in-law at Cognac, and then under Professor Robiquet at Paris, where from Desfontaines and L. C. Richard he acquired a knowledge of botany. In April 1810 he was appointed dispenser in the military marine, and from July 1811 to the end of 1814 he served at Antwerp. In September 1817 he joined the corvette "Uranie," as pharmaceutical botanist to the circumpolar expedition commanded by De Freycinet (see vol. ix. p. 777). The wreck of the vessel on the Falkland Isles, at the close of the year 1819, deprived him of more than half the botanical collections he had made in various parts of the world. In 1830–33 he visited Chili, Peru, and Brazil, and in 1836–37 he acted as botanist to "La Bonite" during its circumnavigation of the globe. His theory accounting for the growth of plants by the supposed coalescence of elementary "phytons" involved him, during the latter years of his life, in much controversy with his fellow-botanists, more especially M. de Mirbel. He died January 16, 1854.

Besides his *Botanique du Voyage autour du Monde, exécuté pendant les Années* 1836–1837, 4 vols. fol., with plates, which included several previous works, Gaudichaud-Beaupré wrote "Lettres sur l'Organographie et la Physiologie," *Arch. de Botanique*, ii., 1833; "Recherches générales sur l'Organographie," &c. (prize essay, 1835), *Mém. de l'Académie des Sciences*, t. viii., and kindred treatises, besides memoirs on the potato-blight, the multiplication of bulbous plants, the increase in diameter of dicotyledonous vegetables, and other subjects; and *Réfutation de toutes les Objections contre les nouveaux Principes Physiologique*, 1852. See *Biographie Universelle*, t. xvi., 1856.

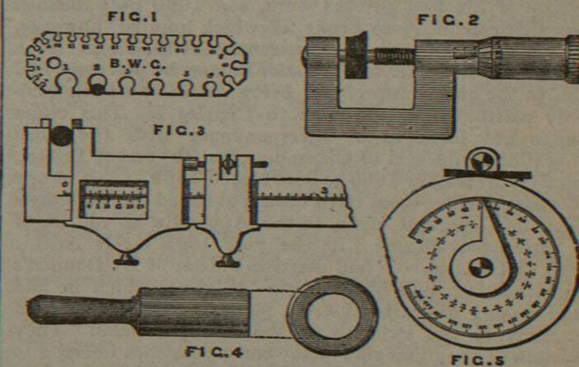
GAUERMANN, Friedrich (1807–1862), an Austrian painter, son of the landscape painter Jacob Gauermann (1773–1843), was born at Wiesenbach near Gutenstein, in Lower Austria, 20th September 1807. It was the intention of his father that he should devote himself to agriculture, but the example of an elder brother, who, however, died

early, fostered his inclination towards art, and though he had enjoyed no special instruction his first attempts at copying nature were so successful that his father was persuaded to permit him to choose a profession which seemed so much to accord with his natural bent. Under his father's direction he began studies in landscape, and he also diligently copied the works of the chief masters in animal painting which were contained in the academy and court library of Vienna. In the summer he made art tours in the districts of Styria, Tyrol, and Salzburg. Two animal pieces which he exhibited at the Vienna Exhibition of 1824 were regarded as remarkable productions for his years, and led to his receiving commissions in 1825 and 1826 from Prince Metternich and Caraman, the French ambassador. His reputation was greatly increased by his picture The Storm, exhibited in 1829, and from that time his works were much sought after and obtained correspondingly high prices. His Field Labourer was regarded by many as the most noteworthy picture in the Vienna exhibition of 1834, and his numerous animal pieces have entitled him to a place in the first rank of painters of that class of subjects. The peculiarity of his pictures is the representation of human and animal figures in connexion with appropriate landscapes and in characteristic situations so as to manifest nature as a living whole, and he particularly excels in depicting the free life of animals in wild mountain scenery. Along with great mastery of the technicalities of his art, his works exhibit patient and keen observation, free and correct handling of details, and bold and clear colouring. He died at Vienna, 7th July 1862. Many of his pictures have been engraved, and after his death a selection of fifty-three of his works was prepared for this purpose by the Austrian *Kunstverein* (Art Union).

GAUGE, in the mechanical arts, is the name applied to a great variety of instruments, of which the object may be broadly stated to be the affording of increased facilities for comparing any two dimensions or distances. Wherever it is necessary for this to be done with a degree of accuracy unattainable by such means as the ordinary measuring rule affords, or for the same dimensions to be frequently measured with a maximum of speed and certainty, there will the hand-craftsman at once avail himself of some form of gauge. At the present day a due appreciation of the value of gauges is of growing importance to the mechanician, since they enable him greatly to improve the "fit" of the several portions of his machinery, whilst at the same time the labour expended in fitting is materially reduced. Indeed the system of making all similar parts "to gauge," so that in any number of machines they are interchangeable, is now effecting more than any other single cause for the improvement and cheapening of mechanical substitutes for manual labour.

The gauges which come within the province of this article differ in two main particulars, according as they refer the measurements which can be made by them to some definite and established standard of length, or take cognizance only of an arbitrary or haphazard one. The obvious advantage of being able to record, and at any time again obtain with certainty, the thickness of a plate of metal, or any other gauged dimension, would have led one to suppose that for all except mere temporary purposes the gauges used would invariably be of the first kind—Standard Gauges, as we shall distinguish them. But the fact is unhappily far otherwise, at least as regards the important manufactures of sheet metal and wire (which cannot be easily measured without some form of gauge), the result being that the thickness and diameters of these are expressed by various complicated and irregular series of numbers and letters, which have no reference either to each other or to any standard system of measurement. Of these arbitrary series the B.W.G. or Birmingham Wire Gauge may be taken as the type. The largest size of which it takes account is known as No. 0000, after which come 000, 00, 0, and then the numerals from 1 to 36, which last is the smallest size. It is frequently used for gauging the thickness of sheet metal as well as for wire, in spite of the existence of the Birmingham Plate Gauge, which has an equally arbitrary series of its own, consisting of the same numbers (from 1 to 36) used in the reverse manner, the low numbers being the small sizes. Other arbitrary wire gauges also tend to add to the general confusion, amongst which may be mentioned the Lancashire Gauge, which takes an alphabet and a half, in addition to the numerals up to 80, for expressing the sizes of steel wire which are referred to it, but which nevertheless does not apply to "music wire," or "needle-wire," or sundry other special kinds of wire, which are favoured with separate gauges of their own. Of late years careful comparisons have more than once been independently made with a view to ascertaining the standard value of these incongruous systems, but the discrepancies in the results only prove what might have been predicted, viz., that errors have crept in, and that those which profess to be alike differ amongst themselves, whilst there exists no satisfactory means of rectifying these errors. Their gradual and entire abolition therefore seems to be the only chance of real improvement, and it is earnestly to be hoped that the Standard Gauge originally suggested by Sir J. Whitworth, which is now largely employed, may soon entirely supersede them. In this system the sizes are directly referred to the English imperial standard of length, each being expressed by the number of thousandth parts of an inch which it contains. Thus No. 36 wire means wire ·036 of an inch in diameter. Under the old systems this might have been either No. 20, No. 62. No. 3, or No. 18.

Examples of some of the usual forms of gauges are given below. For wire the simplest gauge consists of a steel plate with a series of holes drilled through it, each hole being numbered according to the series to which the gauge refers. By means of the Notched Gauge (fig. 1) sheet metal can be gauged by a similar mode of obtaining a more or less accurate fit. Rough gauges on the same principle are constantly employed also in workshop practice for comparing together internal or external diameters, &c.; and



they serve the purpose well enough so long as the object is a mere comparison, without taking account of the amount of any minute difference which may exist. When a measurement of such differences is required, or direct reference to a standard system, recourse must be had to some form of gauge provided with means for enlarging them sufficiently to be readily recognizable. Sliding or Calliper Gauges, such as fig. 3, fulfil this requirement by having the graduated scale affixed to one of their arms and a vernier in connexion with the other. A V-gauge, which, instead of a series of notches round its edge, has only one long tapering notch, by the graduations of which the diameter of any wire that will enter it can be read off, is simple and tolerably efficient. So also is the kindred arrangement (fig. 5), in which a wire or plate can be inserted between a fixed pin and the edge of a revolving cam with graduated face. But perhaps on the whole the best and handiest form is the Micrometer Gauge (fig. 2), which, by means of a micrometer screw with a divided head, measures to the one-thousandth part of an inch, and in careful hands can render visible even smaller fractions. Gauges consisting of two arms jointed together like pincers are also used in certain trades, minute differences in the width of the jaws being magnified and rendered visible on a graduated arc at the opposite ends of the arms.

For special purposes gauges of many other forms are employed, some of which are of much greater delicacy, but these cannot be described here. The only others which remain to be mentioned are those of which the Plug and Collar Gauges (fig. 4) are the type, sets of which are now to be found in almost all mechanical workshops where the value of standard dimensions is recognized. Each gives only the one external or internal dimension for which it is made, but it gives that with the highest attainable accuracy, so that by carefully preserving a comparatively small number of these for reference, and using them in conjunction with measuring machines, the most minute differences can be measured and noted in terms of the standard, so that exact sizes can at any future time be again obtained without appreciable error. (C. P. B. S.)

GAUHÁTI, a town in Kámrúp district, Assam, the chief town of the province, situated on the left or south bank of the Brahmaputra, lat. 26° 11′ 18″ N., long. 91° 47′ 26″ E. Gauháti, which is the most populous town in the Brahmaputra valley, was the seat of the British administration of Assam up to 1874, when the headquarters were removed to Shillong in the Khási hills, 67 miles distant, with which it is connected by an excellent cart road. Gauháta is an important centre of river trade, and the largest seat of commerce in Assam. A regiment of native infantry is permanently cantoned there. Two much frequented places of Hindu pilgrimage are situated in the immediate vicinity, the temple of Kámákhyá on a hill 2 miles west of the town, and the rocky island of Umánánda in the mid-channel of the Brahmaputra. Population (1872), 11,492; municipal revenue, £2727.

GAUL, the name given by the Romans to the country lying between the Rhine and the Pyrenees. When the Greeks first became acquainted with the south-west of Europe they applied to the whole of it, in a somewhat vague sense, the term Celtice (ἡ Κελτική), calling its inhabitants Celts (Κελτοί). Later we find Galatia (Γαλατία) and Gallia (Γαλλία), with the corresponding Galati (Γαλάται) and Galli (Γάλλοι), used as nearly synonymous with the earlier name. The shorter of these two forms the Romans adopted; and in the opening chapter of Cæsar's well-known *Commentaries*, we have our first definite account of the limits of the country and its divisions, as then understood. According to this authority, Gaul was in his day divided among three peoples, more or less distinct from one another, the Aquitani, the Gauls, who called themselves Celts, and the Belgæ. The first of these extended from the Pyrenees to the Garumna (Garonne); the second from that river to the Sequana (Seine) and its chief tributary the Matrona (Marne), reaching eastward presumably as far as the Rhenus (Rhine); and the third from this bounding line to the mouth of the last-named river, thus bordering on the Germans. By implication Cæsar recognizes a fourth division, the Provincia,

lying to the south in the basin of the Rhodanus (Rhone), and stretching westwards as far as Tolosa (Toulouse) in the basin of the Garonne—a portion of Gaul that had been subdued and made a Roman province about fifty years before Cæsar entered on his career of conquest there. By far the greater part of the country was a plain watered by numerous rivers, the chief of which have already been mentioned, with the exception of its great central stream, the Liger or Ligeris (Loire). Its principal mountain ranges were Cebenna or Gebenna (Cevennes) in the south, and Jura, with its continuation Vosegus or Vogesus (Vosges), in the east. The tribes inhabiting Gaul in Cæsar's time, and belonging to one or other of the three races distinguished by him, were numerous. Prominent among them, and dwelling in the division occupied by the Celts, were the Helvetii, the Sequani, and the Ædui, in the basins of the Rhodanus and its tributary the Arar (Saône), who, he says, were reckoned the three most powerful nations in all Gaul; the Arverni in the mountains of Cebenna; the Senones and Carnutes in the basin of the Liger; the Veneti and other Armorican tribes between the mouths of the Liger and Sequana. The Nervii, Bellovaci, Suessiones, Remi, Morini, Menapii, and Aduatici were Belgic tribes; the Tarbelli and others were Aquitani; while the Allobroges inhabited the north of the Provincia, having been conquered in 121 B.C.

The ethnological relations of Cæsar's three great Gallic races have given rise to much discussion. Greek writers, who, in consequence of the planting of the colony of Massilia (Marseilles) on its southern coast at so early a period as 600 B.C., had gained some knowledge of Gaul before the Romans, speak of its inhabitants as Ligurians; and it is certain that a people of this name occupied at one time the coast-line of Europe from the western slopes of the maritime Alps to the Rhone. By many these Ligurians are regarded as having once spread themselves over a much wider area, peopling extensive tracts of Europe as well as Northern Africa. Subsequently, another race, coming probably across the Pyrenees from Spain, subdued south-western Gaul and ruled as far north as the Garonne—the Basques of the two slopes of these mountains remaining to our own day their lineal representatives. Later still, but at a date which history does not venture to fix, one of those great waves of population that are believed to have rolled in succession from east to west brought into northern and central Gaul, it may be at an interval of centuries, the two great branches of the Celtic race, the Gadhelic or Gaelic and the Cymric—the one represented in Britain by the Irish and Scottish Highlanders, the other by the Welsh. Reading Cæsar's brief statements by the light thus afforded, ethnologists now generally hold that his Aquitani were Iberians, largely intermingled with intrusive Gauls; that his Gauls belonged to the Gaelic division of the Celtic race, and his Belgæ to the Cymric (both of them, however, being affected by the presence of races whose territory they had overrun, and the latter by the addition of a German element derived from their proximity to the Rhine); and that the natives of the Provincia were Ligurians, with so large an intermixture of Celts as to make the latter the dominant race. Neither the Greek colony of Massilia, nor those colonies sent out by it, can be supposed to have seriously affected the Gaulish nation from the point of view we are now discussing. It was in a different manner, as a civilizing agency, that they made their presence felt.

Such, it would appear, was Gaul ethnologically when made a part of the Roman empire by Julius Cæsar shortly before the commencement of the Christian era; and, as has often been remarked, such in the main it is still. Some recent scientific inquirers find grounds, however, for con-

cluding that the opinion, so prevalent not only in England but in France itself, that the physical and mental characteristics of the modern Frenchman are chiefly derived from the ancient Gauls, is only in part well founded. The Gauls, they say, like the Romans after them, were strong enough to impose their language on a race or races they had subjugated; but in the attempt to absorb them they themselves have suffered and continue to suffer so much that the day may yet come when the older race will all but regain its superiority. Slowly but surely, according to the researches of M. Roget, Baron de Belloguet, the blue-eyed, fair-haired, long-headed Celt has for many generations been giving place throughout France, in a direction proceeding from south to north, to a more ancient, dark-eyed, black-haired, round-headed man—a similar phenomenon being also noticeable among the Germans.

Northern Italy, in consequence of an intrusion of Gauls at some early date, received from the Romans the name of Gallia Cisalpina or Citerior, to distinguish it from Gaul proper, called also Gallia Transalpina or Ulterior. Afterwards when the Roman element gained the upper hand, Togata was sometimes substituted for Cisalpina; while in contradistinction, Gallia Braccata was applied to the Provincia from the *braccæ* or trousers worn by the natives, and Gallia Comata to the rest of the country, from the inhabitants wearing their hair long. The Gaulish emigrations into Spain on the one hand, and into Britain on the other, scarcely come under the present article; still less can we refer here to the inroads of that restless race into various parts of eastern Europe and western Asia. But it may be remarked in passing that so extensive were the conquests of the Gauls that, in the beginning of the third century before our era, their empire, if much less compact, was scarcely less extensive than that of Rome in her palmiest days.

For some time after the death of Cæsar little attention could be paid to Gaul by the ruling powers at Rome; but in 27 B.C. Augustus, now master of the Roman world, took measures to Romanize it thoroughly. The old division into four provinces was retained, and made subservient to administrative purposes. The Provincia, however, received the name of Gallia Narbonnensis, from the Roman town of Narbo (Narbonne); the boundaries of Aquitania were extended to the Liger; what remained of Cæsar's Gauls were constituted the province of Gallia Lugdunensis, so named from its capital, the new settlement of Lugdunum (Lyons); and the northern division was called Gallia Belgica. This arrangement remained nearly unchanged till the 4th century, when the four provinces were broken up into seventeen, each with a capital and a number of other towns of more or less importance, the names of which may be found in the larger geographical and historical works that treat of the period. While an integral part of the Roman empire Gaul often played no mean part in the contests that took place for the imperial purple; and it was during one of these that Claudius Civilis, a Romanized Gaul, made a gallant attempt to achieve the independence of his country. His efforts, however, were not supported by the mass of the people, and the movement was crushed by Vespasian. Perhaps the most noteworthy event of those centuries was the insurrection of the Bagaudæ or peasant banditti, in the reign of Diocletian. Ruined and driven to despair by the exactions of the imperial treasury, men scoured the country in marauding bands, plundering wholesale. Though the revolt was suppressed, the lesson it ought to have taught Rome was unheeded, and thus the seeds of future troubles remained in the soil. In the declining days of the empire Gaul became a prey to the Visigoths in the south, the Burgundians in the east, and the Franks in the north-east. When order had arisen out of the confusion that ensued, the country was found to have taken under a new name a still more conspicuous place in the political system of Europe.

What is known of the ancient religion of the Gauls will be found under DRUIDISM (vol. vii. p. 477), and brief notices of their institutions and customs, as well as some particulars regarding the introduction of Christianity among them, are given in the article FRANCE (vol. ix. p. 527).

See Dom Martin, *La Religion des Gaulois*, Paris, 1727, 2 vols. 4to; Pelloutier, *Hist. des Celtes*, Paris, 1771, 2 vols. 4to; D. Schæpflinus, *Vindiciæ Celticæ*, Strasburg, 1754, 4to; Amédée Thierry, *Hist. des Gaulois*, Paris, 1828, 3 vols. 8vo; Henri Martin, *Hist. de France*, vol. i., Paris, 8vo; Walckenaer, *Géographie Ancienne historique et comparée des Gaules Cisalpine et Transalpine*, Paris, 1839, 3 vols. 8vo; Ukert, *Geographie der Griechen und Römer*, vol. ii., pt. ii., Weimar, 1832; Holtzman, *Kelten und Germanen*, Heidelberg, 1855, 8vo; Article "Gallia" (by G. Long), in Dr W. Smith's *Dictionary of Greek and Roman Geography*, vol. i., London, 1869, 8vo; Roget, Baron de Belloguet, *Ethnogénie Gauloise*, Paris, 1868–1875, 4 vols. 8vo; E. Desjardins, *Géographie historique et administrative de la Gaule Romaine*, Paris, 1877, 4 vols. 8vo. (J. M'D.)

GAUNT, JOHN OF. See LANCASTER, DUKE OF.

GAUR, or, more commonly, GOUR, the name of a mediæval city in Bengal, of which the scattered relics cover a large area in the district of Malda, commencing not far south of the modern civil station of that name.

The name Gaur is a form of the ancient *Gauḍa* (meaning the country "of sugar"), a term which was applied to a large part of modern Bengal, and specifically to that part in which these remains lie. We have the names of dynasties, and partial lists of the kings of these dynasties, which bore the title of *Gaureshara*, lord of Gaur, or Gauḍa, before the first Mahometan invasion. The last of these dynasties, that of the Senas, or of the Vaidyas, superseded its predecessor, the dynasty of the Pálas, about the middle of the 11th century. The most eminent of this dynasty, by name Lakshmanasena, who flourished at the end of the century, is alleged in inscriptions to have extended his conquests to Kanauj (in the Doab), to Nepaul, and to the shores of Orissa; and this king is said by tradition to have founded the royal city in Gauḍa which in later days reverted to a form of this ancient name (Gaur), but which the founder called after his own name *Lakshmanavati*, or as it sounded in the popular speech *Lakhnaoti*. The fifth from this king, according to Lassen's (more or less imperfect) list, Lakshmaniya (*c.* 1160–1198), transferred the royal residence to Navadvípa, *hod.* Nadiya (on the Hoogly river 70 miles above Calcutta), possibly from apprehension of the rising tide of the Mahometan power; but here it overtook him. Nadiya was taken about 1198–99 (the precise date is disputed) by Mahommed Bakhtiyár Khilji, the general of the slave king Kutbuddín Aibak of Delhi, who became established as governor of Bengal, and fixed his capital at Lakhnaoti. Here he and his captains are said to have founded mosques, colleges, and monasteries. Lakhnaoti continued for the most part to be the seat of the rulers who governed Bengal and Behar, sometimes as confessed delegates of the Delhi sovereigns, sometimes as practically independent kings, during the next 140 years. From about the year 1338, with the waning power of the Delhi dynasties, the kingdom of Bengal acquired a substantive independence which it retained for more than two centuries. One of the earliest of the kings during this period, by name Iliyás (Elias) Sháh, whose descendants reigned in Bengal with brief interruptions for nearly 150 years, transferred the seat of government to Pandua (*c.* 1350), a place about 16 miles N. by E. of Gaur, and to the neighbouring fortress of Ekdála, a place often named in Mahometan notices of the history of Bengal down to the 16th century. At Pandua several kings in succession built mosques and shrines, which still exhibit architecture of an importance

unusual in Bengal proper. After some occasional oscillation the residence was again (*c.* 1446) transferred to Gaur, by which name the city is generally known thenceforward, that of Lakhnaoti disappearing from history. The 24th and last of those whom history recognizes as independent kings of Bengal was Mahmúd Sháh (1533–4 to 1538–9). In his time the city more than once changed hands, during the struggles between the Afghan Sher Sháh and the (so-called) "Great Moghul" Humayún, son of Báber; and on one occasion (1537–8), when Sher Sháh was operating against Gaur, we first hear of the Portuguese in the inner waters of Bengal. A party of that nation, who had been sent with presents to the court of Gaur, had been detained as prisoners by the suspicious Mahmúd. But in the straits arising during his resistance to Sher Sháh, the Frank prisoners were able to render him good service.

Mahmúd was followed by several Pathán adventurers, who temporarily held the provinces of the delta with more or less assertion of royal authority. One of these, Suleimán Kirání (1564–5), abandoned Gaur for Tanda, a place somewhat nearer the Ganges. It is mentioned by Ralph Fitch, the earliest of English travellers in India, who calls it "Tanda in the land of Gouren," standing a league from the Ganges. Mu'ním Khán, Khánkhánán, a general of Akbar's, when reducing these provinces in 1575, was attracted by the old site, and resolved to re-adopt it as the seat of local government. But a great pestilence (probably cholera) broke out at Gaur, and swept away thousands, the general-in-chief being himself among the victims. On his death the deprived Pathán prince, Dáúd, set up his standard again. But he was defeated by the forces of Akbar in a battle at Rajmahl, and taken prisoner. After him no other assumed the style of king of Bengal. Tanda continued for a short time to be the residence of the governors under the "Great Moghuls," but this was transferred successively to Rajmahl and Dacca, in repeated alternation, and finally to Moorshedabad. Gaur cannot have been entirely deserted, for the Nawab Shújá-uddín, who governed Bengal 1725–1739, built a new gate to the citadel. But in history Gaur is no longer heard of, till its extensive remains attracted the curiosity of the English,—the more readily as the northern end of the site approaches within 4 miles of the important factory that was known as English Bazar (among the natives as Angrezábád), which is said to have been built of bricks from the ruins, and which is now the nucleus of the civil station of Malda.

The first specific notice of the city of Gaur, from actual knowledge, is contained in the Persian history called *Tabaqát-i-Násirí*, which has been partially translated in Elliot's *History of India* (ed. by Dowson), and is in course of complete translation by Major H. G. Raverty. The author, Minháj-i-Saráj, visited Lakhnaoti in 1243, but the only particular regarding the city that he mentions is that Ghiyás-uddín 'Iwaz, the fourth Mahometan ruler of Lakhnaoti (who called himself sultan, and according to this writer, struck coin in his own name), besides founding mosques, &c., carried embanked roads across the low country east and west of the city for a space of ten days' journey. These works in part still exist. "Radiating north, south, and east of the city, ... embankments are to be traced running through the suburbs, and extending in certain directions for 30 or 40 miles" (Ravenshaw, p. 3)

The extent of ground over which the remains of Gaur are spread is astonishing; and a large part of it would appear to be still, as when described a century ago, covered with dense wood or with rank jungle of grass and reeds, though in later years cultivation has somewhat extended over the site. What may be called the site of Gaur proper is a space of an oblong form, extending from north to south 7½ miles, with a breadth varying from 1½ to 2 miles. This area is washed on one of its long sides (the western) by a stream called the Bhagirathi, which undoubtedly occupies a former bed of the Ganges (not to be confounded with the Bhagirathi further south, contributing to form the Hoogly on which Calcutta stands). Roughly parallel to the eastern side, but at a distance varying from 2 to 6 miles, runs the

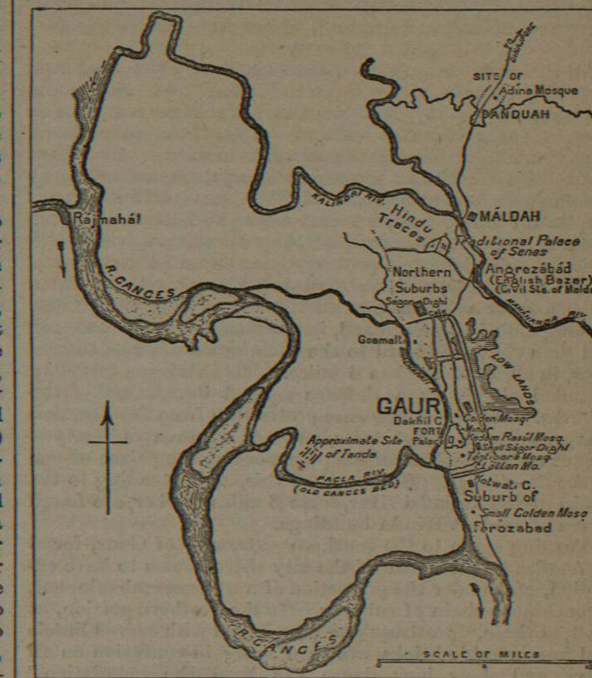


Chart of Gaur and its Environs.

river Mahánanda, whilst extensive swamps and sheets of water are interposed between this river and the city. The extensive area of which we speak has been defended on north, west,[1] and south, by a rampart and ditch, whilst on the east side there is a double embankment of great size, with two ditches of immense width, and in some parts three. It is not quite clear from the descriptions in what degree these latter great works were intended respectively for defence or for protection from floods; but the latter must have been the main purpose. The Ain-i-Akbari (*c.* 1590) alludes to the fact that "if the earthen embankment broke, the town was under water." The position of the city, midway between two rivers of deltaic character, is low, and any rise in those rivers would raise the level of the marshes. Still the mass of these banks, as much as 200 feet thick at base, and 40 feet in height, is greater than any present exposure to flood seems sufficient to explain. It has sometimes been supposed that the Ganges, since the foundation of Gaur, has flowed to the eastward, in what is now the bed of the Mahánanda. If this were so, the massive character of the embankments would be more intelligible. It would appear, however, that the positive testimony to this circumstance, which was at one time supposed to exist, depended on a mistaken reading of the passage, referred to above, of the *Tabaqát-i-Násirí*.

[1] This was so according to Buchanan; but Mr Ravenshaw says "the western face is now open, and probably always was so, having been well protected by the Ganges . . . . which ran under its walls." The plans *all* show an *embankment* on this side, and Creighton gives a section of it, 30 feet high.