

individual suffice to explain the different assurance with which general assertions are made in different departments of knowledge, there is no need to carry the psychological consideration farther back. The effect of such difference in the conditions of experience may, of course, be accumulated in the life of the race, and the accumulation may go far to determine the psychological history of the individual, but the question, as a rational one, must be decided upon analysis of the conditions as they are.

(G. C. R.)

AXMINSTER, a market-town of England, in the county of Devon, 147 miles from London, and 24 from Exeter. It takes its name from the River Axe, on which it stands. The ancient abbey-church, or minster, which adorns the centre of the town, was built by King Athelstan to commemorate a victory over the Danes. The town was formerly distinguished for its production of the best and most costly description of carpets; and it still manufactures broad and narrow cloths, cotton, leather, gloves, tapes, and druggets. Dr Buckland was a native of the town. Population of the parish in 1871, 2861.

AXUM, an ancient city of Abyssinia, 85 miles N.W. of Antalo, still remarkable for its ruins. It was for a long time the capital of a great Shemitic people, who extended their sway over a large part of Abyssinia; and the language spoken there at the time of the introduction of Christianity has continued to be the ecclesiastical language ever since. The chronicles of Abyssinia were preserved in the church, and are frequently referred to as the *Books of Axum*. The most interesting of the monuments still extant are the obelisk and the so-called coronation-room, both constructed of granite, and the latter containing some valuable bilingual inscriptions. In the modern town, which is the capital of the kingdom of Tigré, the weaving of cotton and manufacture of parchment are carried on. (See *Salt's Travels*, and Schimper in *Zeitsch. der Ges. Erdk.*, Berlin, 1869.)

AYAMONTE, a fortified city of Spain, in the province of Huelva, on the left bank of the Guadiana, about 2 miles from its mouth. The harbour is good, but, on account of a bar at its mouth, it is of difficult entrance. The principal employment of the inhabitants is afforded by the fisheries, especially for sardines, tunny, cod, and horse-mackerel; but this branch of industry has suffered by the extension of the general coasting traffic. Silk-weaving is carried on. Ayamonte is said to have had in the 16th century 16,000 inhabitants. Population, 5960.

AYLESBURY, a market-town, parliamentary borough, and railway junction, in the county of Buckingham, 39 miles N.W. of London. It stands on a gentle eminence in the centre of a fertile vale, and consists of several streets and lanes irregularly built, but well paved and lighted. The county-hall, market-house, and county gaol are handsome buildings, as is also the parish church, an ancient structure with a tower rising from the centre. It has a free grammar-school (1611), several other schools and charities, a corn-exchange (1865), three banks, a savings bank, an infirmary (1833), a union workhouse, and places of public worship for Roman Catholics, Methodists, Baptists, Independents, &c. It returns two members to parliament. The assizes and quarter sessions and the elections of members for the county are held here. The inhabitants are principally employed in the manufacture of bonelace and straw-plaiting, besides the rearing of ducks, which are sent in large quantities to the London market at Christmas. A branch canal, six miles in length, connects Aylesbury with the Grand Junction Canal. Population of parliamentary borough in 1871, 28,760.

AYLESFORD, a village of England, in the county of Kent, $3\frac{1}{2}$ miles from Maidstone, and 32 from London. It stands at the base of a hill on the right bank of the

Medway, which is here crossed by a stone bridge of six arches. The church stands on an eminence behind the village. At a short distance to the W. was a Carmelite friary, founded in 1240, the remains of which now form a part of the family mansion of the earl of Aylesford. The vicinity exhibits several remains of antiquity, among which is, or rather was, for it is grievously destroyed, a cromlech called Kit's Coity House, about a mile N.E. from the village. This is supposed by Mr Fergusson, in accordance with tradition, to mark the burial-place of Catigern, who was slain here in a battle between the Britons and Saxons in 455 A.D. The tomb of Horsa, who fell in the same battle, is situated at Horsted, about 2 miles to the N. Near Aylesford, too, are other remains, known as the Countess Stones. Population of parish in 1871, 2100.

AYLMER, JOHN, Bishop of London in the reign of Queen Elizabeth, was born in the year 1521 at Aylmer-hall, in the parish of Tilney, in the county of Norfolk. Whilst a boy, he was noticed for his precocity by the marquis of Dorset, afterwards duke of Suffolk, who sent him to the university of Cambridge. He afterwards proceeded to Oxford, where he completed his studies and took his degree in divinity. He was then made chaplain to the duke and tutor to his daughter, the accomplished and unfortunate Lady Jane Grey, whose extraordinary proficiency in the Greek and Latin languages reflects no small honour on her preceptor. His first preferment was to the archdeaconry of Stow, in the diocese of Lincoln, which gave him a seat in the Convocation held in the first year of Queen Mary, where he resolutely opposed the return to Popery, to which the generality of the clergy were inclined. He was soon after obliged to fly his country, and take shelter among the Protestants in Switzerland. While there he wrote a reply to Knox's famous *Blast against the Monstrous Regiment of Women*, under the title of *An Harborow for Faithfull and True Subjects*, &c. On the accession of Queen Elizabeth he returned to England. In 1562 he obtained the archdeaconry of Lincoln, and was a member of the famous synod of that year, which reformed and settled the doctrine and discipline of the Church of England. In 1576 he was consecrated bishop of London, and while in that position made himself notorious by the harsh manner in which he insisted on the Act of Uniformity. His persecution of the Puritans, and of any clergymen suspected of Puritanical leanings, with the extreme measures he used, made him unpopular even with his own party. He is frequently assailed in the famous *Marpurate Tracts*, and is characterised as *Morrell*, the bad shepherd, in Spenser's *Shepherd's Calendar*. He seems to have been a man of harsh and violent temper, coarse, and avaricious, and with few redeeming qualities. He is said to have been an able scholar, but he has left nothing which could prove this. He died in 1594. (*Strype, Life and Actions of John Aylmer, Bishop of London.*)

AYR, COUNTY OF, or **AYRSHIRE**, a Scottish county, bounded by Wigtownshire and the stewartry of Kirkcubright on the S.; by Kirkcubright, Dumfries, and Lanark on the E.; and by Renfrewshire on the N. On the W. it has a coast line extending to 70 miles on the Irish Sea and the Firth of Clyde. The county contains 1149 square miles, or 735,262 acres. The middle part, which is the broadest, is about 26 miles across. There are six rivers of some note in Ayrshire—Stinchar, Girvan, Doon, Ayr, Irvine, and Garnock. Of these the Ayr, from which the county and county town take their name, is the largest. It rises at Glenbuck, on the border of Lanarkshire, and, after a course of 33 miles, falls into the Firth of Clyde at the county town. The scenery along its banks from Sorn downwards—passing Catrine, Ballochmyle, Barskim-

ming, Sundrum, Auchencruive, and Craigie—is varied and beautiful. The lesser streams are numerous; and there are many fresh-water lochs, the largest of which is Loch Doon, the source of the river Doon. The southern and eastern parts of the county are hilly, but none of the peaks reaches a height of 2000 feet. In former times the shire was divided into three districts—Carrick, south of the Doon; Kyle, between the Doon and the Irvine; and Cunningham, north of the Irvine. Kyle, again, was divided by the river Ayr into King's Kyle on the south, and Kyle Stewart on the north. The county is now politically divided into south and north Ayrshire. The former comprises Kyle and Carrick, and the latter Cunningham, and each division returns a representative to Parliament. The old divisions, however are still popularly retained. The greater part of Carrick is hilly, and fit only for sheep-walks. The uplands of Kyle are also extensive, but there is a larger proportion of good low-country land in that district. Cunningham is comparatively level, and has a great extent of rich land, though rather heavy in its character. The scenery is not grand in any part of the county, but much of it is picturesque and beautiful. From many of the heights a rich, undulating, well-wooded country may be seen, with the Bay of Ayr, or the Firth of Clyde beyond, and the lofty peaks of Arran, or the Argyllshire hills, in the distance.

There has been no lack of agricultural enterprise in Ayrshire. With a moist climate, and, generally, a rather heavy soil, draining was necessary for the successful growth of green crops. Up till 1840, or a few years later, a green crop in the rotation was seldom seen, except on porous river-side land, or on the lighter farms of the lower districts. In the early part of the century lime was a powerful auxiliary in the inland districts, but, with repeated applications, it gradually became of little avail. Thorough draining gave the next great impulse to agriculture. Enough had been done to test its efficacy previous to the announcement of Sir Robert Peel's drainage loan, after which it was rapidly extended throughout the county. Green-crop husbandry, and the liberal use of guano and other auxiliary manures, made a wonderful change on the face of the county, and increased immensely the amount of agricultural produce. Early potatoes are now extensively grown in some localities. The farmers on the coast lands of Girvan and West Kilbride are first in the market, and the next supplies come from the friable lands about Ayr and St Quivox. A considerable extent of ground is cleared in June for the Glasgow market; and, in dropping seasons, good crops of turnips follow. At the end of July and the beginning of August, great quantities of potatoes are sent to Newcastle, and to the large towns of Lancashire and the West Riding. The mild climate of the Ayrshire coast in spring is favourable to this kind of cropping, which brings quick returns, and on the whole is profitable. Carrots and mangolds are cultivated more extensively than in any other Scotch county, and, with early sowing and rich manuring, heavy crops are raised. Wheat generally follows green crops in the lower parts of the county, though barley is coming more into use than in former times on light land. The border line for wheat may be drawn at a little over 300 feet; above that height its growth is exceptional. The dairy forms an important department of farm management in Ayrshire. Dunlop cheese was a well-known product of Ayrshire dairies a quarter of a century ago. Part of it was very good; but it was unequal in its general character, and unsaleable in English markets. Dissatisfied with the inferior commercial value of their cheese in comparison with some English varieties, the Ayrshire Agricultural Association brought a Somerset farmer and his wife in 1855 to teach the Cheddar method, and their

effort has been most successful. Cheddar cheese of first rate quality is now made in Ayrshire and Galloway, and the annual cheese show at Kilmarnock is the most important in the kingdom. The cheese may be more thoroughly fine in a few Somerset dairies, but the average quality of Scotch Cheddar is higher than the English. This great change of an industrial art has brought wealth to the county. It is not too much to say that it has added £2 per cow to the annual value of dairy produce, and there are 45,000 cows in Ayrshire.

The manufactures of Ayrshire have attained considerable importance. The cotton works at Catrine are extensive, and have been a long time established. The site was chosen with the view of utilising the water power of the river Ayr, and steam is still merely an auxiliary. At Kilmarnock and Ayr there are extensive engineering establishments, and large carpet works; and other fabrics are manufactured in those towns and at Dalry, Kilbirnie, Beith, and Stewarton. Until the last three or four years, Irvine was a back-going place, but it has received an impulse from the erection of large chemical works. The situation is very suitable for chemical manufactures, as the soil is poor and sandy, and the liquid refuse of chemical works is easily carried into the sea, without causing the nuisance which is inevitable in a large town. The Eglinton Chemical Company are most extensive manufacturers of bichromate of potash—a substance which is used at dyeworks as an oxidising agent; and another company is largely engaged in the alkali trade, and in the extraction of copper from burnt pyrites ore. On the coast, between Irvine and Ardrossan, works have been erected on the sandhills for the manufacture of dynamite, which is now well known as one of the most powerful explosive agents. It is much used for blasting under water, and large quantities of it are sent to America for blowing up the roots of trees in the reclamation of land.

The iron trade of Ayrshire has risen to great importance. The manufacture has long been carried on at Muirkirk, although the iron had to be carted long distances to Ayr and Glasgow before the introduction of railways. Immense fields of ironstone have been opened up within the last quarter of a century; and there are now 33 furnaces in blast within the county, producing about 330,000 tons per annum. The works are all connected with the Glasgow and South-Western Railway. The whole manufacture of iron in Ayrshire is in the hands of three great companies, namely, William Baird & Company, the Dalmeilington Iron Company, and Merry & Cunningham. Hæmatite of good quality is raised in Sorn and Muirkirk, and discoveries of it have been made in Carrick. The coal-fields are of great extent, and limestone exists in large quantities. A valuable whetstone quarry is worked at Bridge of Stair on the Ayr.

The old harbours of the county were at Ayr, Irvine, and Saltcoats. The latter is now neglected, and its place is supplied by the more important harbour of Ardrossan. The works at Ardrossan were carried through by the private enterprise of the last two earls of Eglinton. They were begun in the early part of this century, with the expectation of making Ardrossan an important shipping port for Glasgow, in connection with a canal, which, however, was never carried further than from Glasgow to Johnstone. The works were designed by Telford. The pier was finished in 1811, and the docks were completed by the late earl. The harbour of Troon was likewise the work of an enterprising nobleman. It was formed by the late duke of Portland, who connected it with Kilmarnock by a railway, which was among the earliest in the country. Troon has an extensive shipping business, as the outlet for the great coal-fields of the Kilmarnock district. Acts of parlia-

ment have been obtained, which sanction harbour improvements at Irvine and Girvan, and a large wet-dock is in course of formation at Ayr. The dock at Ayr is important, as Ayr is the natural outlet for the great coal-fields up the river, and for the ironworks at Dalmellington, Lugar, and Muirkirk, as well as the fields which are being developed on the railways, called the Ayrshire lines, between Cumnock and the river Doon.

The Glasgow, Kilmarnock, and Ayr Railway was partially opened in 1840, and soon after completed. A connection was made a few years later from the Ayr line at Kilwinning to Ardrossan, and an extension from Kilmarnock to Cumnock, with a branch to Muirkirk. Extensions followed from Cumnock to Dumfries and Carlisle, and from Ayr to Dalmellington, and to Maybole and Girvan; and the Troon Railway was acquired from the duke of Portland, as a connecting link of what is now the Glasgow and South-Western Railway system. Other important branches have been made, and a trunk line is now in course of formation between Girvan and Stranraer, which will give a connection between Glasgow and Ayrshire and the north of Ireland by the shortest sea passage. Ayrshire is thus well supplied with railways.

The antiquities of Ayrshire are not of much note. There are cairns in Galston, Sorn, and other localities; a road, supposed to be a work of the Romans, which extended from Ayr, through Dalrymple and Dalmellington, towards the Solway; camps, attributed to the Norwegians or Danes, on the hills of Knockgeorgan and Dundonald; and the castles of Loch Doon, Turnberry, Dundonald, Portencross, Ardrossan, &c. There are interesting remains of the celebrated abbeys of Kilwinning and Crossraguel; and the ruins of the little church of Alloway, amid the lovely scenery near the birthplace of Burns, have become more famous from their associations than many great works of architectural genius.

The rural population of Ayrshire is decreasing, but the mining population has increased, and the towns are growing. At the last census there were 27,132 inhabited houses, and the population reached 200,745. The county valuation last year amounted to £1,178,183, 5s. 10d., being an increase of more than £50,000 from the previous year. The amount for Kyle was £446,874, 18s. 5d.; for Cunningham, £411,504, 1s. 6d.; for Carrick, £177,168, 10s. 3d.; for the burgh of Ayr, £63,273, 16s. 6d.; for Kilmarnock, £63,202, 19s.; and for Irvine, £16,159, 0s. 2d.

AYR, the capital of the above county, is situated at the mouth of the river of the same name, and about 40 miles S.S.W. from Glasgow. The spot has probably been inhabited from a remote antiquity. Nothing, however, is known of its history till the close of the 13th century, when it was made a royal residence, and soon afterwards a royal burgh, by William the Lion. The charter conferring upon it the latter privilege has been preserved, of which a fac-simile will be found in vol. i. of the *National Manuscripts of Scotland*. During the wars of Scottish independence the possession of Ayr and its castle was, according to tradition, an object of importance to both the contending parties. In Blind Harry's *Life of Wallace* they are frequently mentioned, and the scene is laid there of one of the patriot's greatest exploits; but the authenticity of many of the minstrel-historian's statements is more than doubtful. On better authority, the records of the burgh, it is known that early in the 16th century Ayr was a place of considerable influence and trade. The liberality of William the Lion had bestowed upon the corporation an extensive grant of lands; while in addition to the well-endowed church of St John's, it had two monasteries, each possessed of a fair revenue. When Scotland was overrun by Oliver Cromwell, Ayr was selected as the

site of one of those forts which he built to command the country. This fortification, termed the citadel, enclosed an area of ten or twelve acres, and included within its limits the church of St John's, in which the Scottish Parliament on one occasion met, and confirmed the title of Robert Bruce to the throne. The church was converted into a storehouse, the Protector partly indemnifying the inhabitants for this seizure by liberally contributing towards the erection of a new place of worship, now known as the Old Church. Ayr proper lies on the south bank of the river, and is connected with Newton and Wallacetown on the north by two bridges, the Old and the New, the "Twa Brigs" of Burns. Of late years the town has extended greatly on the Ayr side of the stream. Nearly the whole of Cromwell's Fort is now covered with houses, and to the south, in the direction of the race-course, numerous fine villas have been erected. Ayr possesses several good streets and a number of elegant public and other edifices. The County Buildings, which afford accommodation for the circuit and provincial courts, as well as for the various local authorities, occupy the west side of Wellington Square. Contiguous to these is the jail, a well-regulated establishment, partly used as a penitentiary. The Town's Buildings, near the New Bridge, is a handsome erection, the effect of which is somewhat impaired by the lowness of the site. They contain assembly rooms and a reading-room, and are surmounted by a spire 217 feet high, designed by Hamilton, of Edinburgh, and considered by many the finest in the west of Scotland. All the Edinburgh and Glasgow banks have branches in Ayr, and some of them have built ornamental structures for their accommodation. Besides the old church already mentioned, there is another parish church called the New, and a number of dissenting places of worship, none of them, however, noteworthy on account of their architecture. The Academy, a large building in a convenient position, includes, or has superseded, the Grammar School of the burgh, the existence of which can be traced back as far as the 13th century. A portion of the tower of St John's Church still remains, but, to the regret of the antiquary, has been completely modernised. The "Wallace Tower" is a Gothic structure in High Street, erected on the site of an old building of the same name taken down in 1835. A niche in front is filled by a statue of the Scottish hero by Thom, a self-taught sculptor, who executed in a much more successful manner the statues of Tam o' Shanter and Souter Johnnie, now in the grounds of Burns' Monument. Ayr Hospital is a plain but substantial erection near the Townhead railway station. There are two subscription libraries in the town, and it also supports one weekly and one bi-weekly newspaper. Its religious and charitable societies are numerous. A market is held every Tuesday, and there are five yearly fairs. The Western Meeting takes place in September of every year on Ayr racecourse, a large enclosure in the suburbs, which has been reserved for this purpose for more than a century. Alloway Kirk and Burns' Monument are distant 2½ miles. The principal manufactures of Ayr are leather, carpets, woollen goods, &c.; and fisheries and shipbuilding are also carried on to a small extent. There are several foundries and engineering establishments. Ayr has a general trade of considerable value. Large quantities of timber are imported from Canada and from Norway; coal and iron are the chief exports. The harbour occupies both sides of the river from the New Bridge to the sea, and has been built at a very considerable expense in a most substantial manner. The south pier projects some distance into the sea; on the north side is a large breakwater protecting the entrance, and on the north pier are three lights, two bright and one red from 1270

35 feet above high water. The depth of water at the bar is about 14 feet at neap and 16 at spring tides. Extensive docks are in the course of formation, which are expected to increase largely the importance of the place as a seaport. Railways converge upon Ayr from the north, east, and south, opening up a connection with all parts of the country. The burgh unites with Irvine, Inveraray, Campbeltown, and Oban in returning a member to Parliament. Previous to 1873, its municipal boundary on the north was the river, but an Act of Parliament was obtained in that year by which this boundary was extended so as to include Newton-on-Ayr and Wallacetown, and made the same as that of the parliamentary burgh. The corporation of Ayr consists of a provost and four bailies, and twelve town councillors. In 1871 the population of the extended burgh was 17,851. Though thus conjoined with Ayr for the parliamentary franchise and municipal government, and forming with it in reality but one town, Newton and Wallacetown were formerly each quite separate. The former is a burgh or barony of very ancient erection. The original charter has been lost; but it is traditionally said to have been granted by King Robert the Bruce in favour of forty-eight of the inhabitants who had distinguished themselves at Bannockburn. Be this as it may, the common property of the burgh is held to be the exclusive property of the freemen, forty-eight in number. The extent of the lots possessed by each varies from six to ten acres, and their value is considerable. Newton has a council, consisting of two bailies, a treasurer, and six councillors, annually elected by the freemen from among their own number; but the powers of the council, though originally extensive, are now very limited. Wallacetown is *quoad civilia* a part of the neighbouring parish of St Quivox. About two miles east of Newton is the village of Prestwick, the headquarters of one of the most flourishing golf clubs in Scotland.

AYRER, JACOB, one of the earliest dramatists of Germany, was born in 1560, probably at Nuremberg,—at least he resided there when a mere boy. His first occupation was keeping an iron-store, which he did with considerable success. After studying law for some time at Bamberg, where he attained a good position as a lawyer, he returned to Nuremberg, and continued to practise there, acquiring the freedom of the city in 1594, and ultimately becoming an imperial notary. He died 26th March 1605. Ayer's works consist of numerous small poems, and of the series of dramas on which his fame rests. Like other dramas of the time, his productions are, for the most part, spectacular displays, with laboured dialogue, and vary in length from five to twenty-eight acts. The plots are plainly taken from the Latin and Italian tales which supplied material to nearly all the early European dramatists. The chief interest of Ayer's works for English readers arise from their connection with Shakespeare. Ayer adopted several of Shakespeare's plots, as well as his method of representing the characters on the stage after life, "and so produced," says his editor, "according to the new English manner and art, that all can be personally acted and placed so that it shall seem to the spectators to be really happening." In Ayer's time the dramatic spirit in England was strong, and good plays and players abounded. Some of the latter took circuits through Germany, and though performing in their native tongue, excited enthusiasm by their vivacity. Ayer caught this enthusiasm, and adapted several of the English dramas to the German stage. The *Opus Theatricum*, in one folio volume of 1262 pages, was published posthumously in 1618. It contained thirty plays and thirty-six carnival interludes. A second volume to contain forty more though promised, did not appear. Of the

comedies and tragedies of Ayer, six have been reproduced with an English translation in Cohn's *Shakespeare in Germany*. These contain respectively plots resembling *The Tempest*, *Much Ado about Nothing*, *The Two Gentlemen of Verona*, *Titus Andronicus*, *Romeo and Juliet*, and *Hamlet*. In 1601, a comic prose work by Ayer was published, giving an account of an *Imaginary Suit of the Devil against Jesus Christ for Destroying Hell*. Some of his plays were published prior to 1585, but these are not now to be had, and even the folio of 1618 is extremely rare. Further information about Ayer may be gained from Tieck's *Deutsches Theater*, vol. i.; Wolf's *Encyc. der Deutschen Nationalliteratur*, vol. i.; Cohn's *Shakespeare in Germany*; Dr Bell's *Shakespeare's Puck, and his Folklore*; Dr Latham's *Two Dissertations on "Hamlet"*; W. J. Thom's *Three Notelets on Shakespeare*.

AYTON, SIR ROBERT (1570-1638), a Scottish lyrical poet, the second son of Andrew Ayton of Kinaldie in Fifeshire, was educated at the University of St Andrews, and seems afterwards to have resided for several years in France, where he gained considerable reputation as a poet and scholar. On the accession of James VI. in 1603, Ayton published a very elegant Latin panegyric, which at once brought him into notice and favour at court. He was knighted by the king, and held various important offices, particularly that of private secretary to the queen. He was of an exceedingly amiable disposition, and was much beloved by his contemporaries; even Ben Jonson, who criticised all other poets so severely, seems to have made an exception in his favour, for he told Drummond that Sir Robert loved him dearly. Ayton's extant works consist of some Latin poems, and of a few pieces in the English dialect, which are distinguished by smoothness of rhythm and delicacy of fancy. His best ode, *Inconstancy Reproved*, beginning, "I do confess thou'rt smooth and fair," may take rank with the finest pieces of Herrick or Suckling, while a few others are but little inferior. His poems have been collected and published by C. Rogers (Edin. 1844).

AYTOUN, WILLIAM EDMONSTONE, a Scottish poet, humourist, and miscellaneous writer, was born at Edinburgh, 21st June 1813. He was the only son of Roger Aytoun, a writer to the Signet, and the family was of the same stock as Sir Robert Ayton noticed above. From his mother, a woman of marked originality of character and considerable culture, he derived his distinctive qualities, his early tastes in literature, and his political sympathies, his love for ballad poetry, and his admiration for the Stuarts. At the age of eleven he was sent to the Edinburgh Academy, whence he passed in due time to the University, studied the classics under Professors Pillans and Dunbar, and attended the course of Professor John Wilson on Moral Philosophy. In 1833 he spent a few months in London for the purpose of studying the law; but in September of that year he went to study German at Aschaffenburg, where he remained till April 1834. He then resumed his legal pursuits in his father's chambers, was admitted a writer to the Signet in 1835, and five years later was called to the Scottish bar. But, by his own confession, though he "followed the law, he never could overtake it." He disliked his profession, and allowed his literary tastes to predominate. His first publication—a volume entitled *Poland, Homer, and other Poems*, in which he gave expression to his eager interest in the state of Poland—appeared in 1832. While in Germany he made a translation in blank verse of the first part of *Faust*; but, forestalled by other translations, it was never published. In 1836 he made his earliest contributions to *Blackwood's Magazine*, in translations from Uhland; and from 1839 till his death he remained on the staff of *Blackwood*. About 1841 he became acquainted with Mr Theo-

dore Martin, and in association with him wrote a series of light humorous papers on the tastes and follies of the day, in which were interspersed the verses which afterwards became popular as the *Bon Gualtier Ballads*. The work on which his reputation as a poet chiefly rests is the *Lays of the Scottish Cavaliers*. The first of these appeared in *Blackwood's Magazine* in April 1843, and the whole were published in a collected edition in 1848. They became very popular, and have passed through nineteen editions, the last of which has spirited and beautiful illustrations by Sir J. Noel Paton and W. H. Paton. Meanwhile, he obtained, in 1845, the chair of Rhetoric and Belles Lettres at Edinburgh University, which he filled honourably and successfully till 1864. He devoted himself conscientiously to the duties of the office, and his pupils increased in number from 30 to 150. In 1849 he married the youngest daughter of Professor John Wilson (Christopher North), whose death, in 1859, was the great calamity of his life. His services in support of the Tory party, especially during the Anti-Corn-Law struggle, received official recognition in his appointment (1852) as sheriff of Orkney and Zetland. In 1854 appeared *Firmilian, a Spasmodic Tragedy*, in which he attacked and parodied the writings of Bailey, Sydney Dobell, and Alexander Smith; and two years later he published his *Bothwell, a Poem*. Among his other literary works are a *Collection of the Ballads of Scotland*, a translation of the *Poems and Ballads of Goethe*, executed in co-operation with his friend Theodore Martin, a small volume on the *Life and Times of Richard I.*, written for the *Family Library*, and a novel entitled *Norman Sinclair*, many of the details in which are taken from incidents in his own experience. In 1860 Aytoun was elected honorary president of the Associated Societies of Edinburgh University. The death of his mother took place in November 1861, and his own health was failing. In December 1863 he married Miss Kinnear, and health and happiness for a time revived; but his malady recurred, and he died at Blackhills, near Elgin, 4th August 1865. His remains were interred at Edinburgh. A memoir of Aytoun by Theodore Martin, with an appendix containing some of his prose essays, was published in 1867. (W. L. R. C.)

AZAIS, PIERRE HYACINTHE, a brilliant French writer on philosophy, was born at Sorrèze in 1766, and died at Paris in 1845. He was educated at the college in his native town; and at the age of 17 joined a religious body with the view of afterwards entering the church. He remained only a year in this society, and then accepted an appointment as teacher in the college at Tarbes. The duties of this office proved most uncongenial to him, and he gladly entered the service of the bishop of Oléron, to whom he acted as secretary. With this, too, he quickly became dissatisfied, either on account of the bishop's reiterated desire that he should take orders, or from the many petty annoyances incident to his post. He withdrew to the little village of Villemagne, near Beziers, where he supported himself by performing the duties of organist in the church. He afterwards acted as tutor to the Count de Bose's sons, with whom he remained till the outbreak of the Revolution. Azais, at first an ardent admirer of that great movement, was struck with dismay at the atrocities that were perpetrated, and published a vehement pamphlet on the subject. He was denounced, and had to seek safety in flight. For eighteen months he found refuge in the hospital of the Sisters of Charity at Tarbes; and it was not till 1806 that he was able to settle in Paris. There, three years later, he published his treatise *Des Compensations dans les Destinées Humaines*, in which he sought to show that happiness and misery were fairly balanced in this world, and that consequently it was the duty of citizens to submit quietly to a fixed government.

This doctrine was not displeasing to Napoleon, who made its author professor at St Cyr. After the removal of that college, he obtained, in 1811, the post of inspector of the public library at Avignon, and from 1812 to 1815 he held a similar office at Nancy. His preference for the Bonaparte dynasty naturally operated in his disfavour at the Restoration; but after suffering considerable privation for some years, he obtained a government pension, which placed him beyond the reach of want. He employed the remaining years of his life in oral and published expositions of his system of philosophy.

According to Azais, the whole of existence, the universe, whose cause is God, may be regarded as the product of two factors, Matter and Force. Matter in its primitive state consists of homogeneous elements or atoms. All force is in its nature expansive, and is, therefore, subject to one supreme law, that of equilibrium, or equivalence of action and reaction; for evidently expansive force emanating from each body is repressive force acting on all other bodies. The whole of the phenomena of the universe are successive stages in the development caused by the action of this one force under its one law on the primitive atoms; and in tracing this development we must group facts into three distinct orders,—first, the physical; second, the physiological; third, the intellectual, moral, and political. In the sphere of physical phenomena, distinct development can be traced from the simplest mechanical motion up through the more complex forces of light, heat, and electricity to the power of magnetic attraction, by means of which the second great order of facts is produced out of the first. For magnetic force acting on elastic bodies, which as reactive have potential life, creates the primitive living globule, which is shaped like a tube open at both ends. From this first vital element a gradual ascent can be traced, culminating in man, who is differentiated from the other animals by the possession of intellect, or consciousness of the ideas with which external things impress him. These ideas, however, are in themselves corporeal; what is immaterial in man, or his soul, is the expansive force inherent in him. Moral and political phenomena are the results of two primitive instincts, progress and self-conservation, corresponding to the two forces, expansion and repression. From the reciprocal relations of these instincts may be deduced the necessary conditions of social and political life. The ultimate goal of humanity is the perfect fulfilment of the law of equilibrium, the establishment of universal harmony. When that is accomplished, the destiny of man has been achieved, and he will vanish from this earth. Such a consummation may be looked for in about 7000 years. During an additional period of 5000 years the great cosmical forces will be gradually tending towards the establishment of complete equilibrium; and, when this is attained, the present system of things is at an end.

The chief works of Azais, besides the *Compensations*, are—*Système Universel*, 8 vols. 1812; *Du Sort de l'homme*, 3 vols. 1820; *Cours de Philosophie*, 8 vols. 1824; *Explication Universelle*, 3 vols. 1826-8; *Jeunesse, Maturité, Religion, Philosophie*, 1837; *De la Phrenologie, du Magnétisme, et de la Folie*, 1843.

AZARA, DON FELIX DE, a Spanish naturalist, was born 18th May 1746, and died in 1811. He studied first at the university of Huesca, and afterwards at the military academy of Barcelona. In 1764 he entered the army as a cadet, and in 1767 obtained an ensigncy in the engineer corps. In 1781 he was appointed, with the rank of lieutenant-colonel of engineers and captain in the navy, on a commission to lay down the line of demarcation between the Spanish and the Portuguese territories in South America. There he spent many years, observing and collecting specimens of the various interesting objects of

natural history that abound in those wide and little-known regions. In 1801 he obtained leave to return to Spain, and after a short residence at Paris, was appointed a member of the *Junta de fortificaciones y defensa de Ambos Indias*, a public board, in which chiefly was centred the home government of the Spanish colonies. His principal work is his *Travels in South America from 1781 to 1801*; published in French from the author's MS., by C. A. Walckenaer, with atlas and plates, 4 vols. 8vo, Paris, 1809. It contains a valuable account of the discovery, conquest, and civil and natural history of Paraguay and Rio de la Plata; and embodies his former contributions to the zoology of these countries, which had appeared in a French translation at Paris in 1801. The work is enriched with the notes of Walckenaer and Cuvier, and a notice of the author by the former. An English translation of part of Azara's work on the *Natural History of Paraguay* appeared at Edinburgh in 1838.

AZARA, DON JOSE NICHOLAS D', the elder brother of the naturalist, born in 1731, was appointed in 1765 Spanish agent and procurator-general, and in 1785, ambassador at Rome. During his long residence there he distinguished himself as a collector of Italian antiquities and as a patron of art. He was also an able and active diplomatist, took a leading share in the difficult and hazardous task of the expulsion of the Jesuits from Spain, and was instrumental in securing the election of Pius VI. He withdrew to Florence when the French took possession of Rome, in 1798. He was afterwards Spanish ambassador at Paris; was three times deprived of, and restored to his office; and was finally preparing to return to his antiquarian studies in Italy when he was seized with a fatal illness, and died at Paris in January 1804.

AZEGLIO, MASSIMO TAPARELLI, MARQUIS D', an eminent Italian author and statesman, was born in October 1798, at Turin. He was descended from an ancient and noble family of Piedmont, and was the son of a military officer, who, when the subject of this notice was in his fifteenth year, was appointed ambassador to Rome. The boy went with him, and, being thus introduced to the magnificent works of art for which the Eternal City is famous, contracted a love for painting, as well as for music. He desired to become a painter, and, although his studies were for a time interrupted by his receiving a commission in a Piedmontese cavalry regiment, and by a subsequent illness, brought on by the severity of his scientific investigations and resulting in his quitting the service, he eventually returned to Rome, and, with some difficulty, obtained his father's permission to devote himself to art. He remained at the Papal capital eight years, and acquired great skill and some fame as a landscape-painter. At the close of that period events directed his mind into other channels. His father died in 1830, and the younger Azeglio then removed to Milan, where he became acquainted with Alessandro Manzoni, the poet and novelist, whose daughter he married. In this way his thoughts were turned towards literature and politics. At that time, Italy was profoundly agitated by the views of the national and liberal party. The country was divided into several distinct states, of which the greater number, even of those that were nominally independent, were under the influence of Austria. Lombardy and Venetia formed parts of the Austrian dominions. The petty monarchies of the north were little better than vassals to the house of Hapsburg; the Papacy, in the centre, was opposed to all national aspirations; and the kingdom of the Two Sicilies, in the south, was a despotism, which for cruelty and mental darkness could not have been exceeded in Asia itself. The French revolution of July 1830 gave additional force to the movements of the Italian liberal

party, and the young men of the day threw themselves with fervour into the crusade against old abuses and foreign domination. Mazzini was just beginning his career as an agitator, and the whole air was surcharged with revolutionary enthusiasm. This was especially the case in the north of Italy, where Massimo d'Azeglio was now settled. Art was abandoned by him for literature, and literature was practised with a view to stimulating the sense of national independence and unity. In 1833, M. d'Azeglio published a novel called *Ettore Fieramosca*, which was followed in 1841 by another, entitled *Niccolo di Lapi*. Both had a political tendency, and, between the two dates at which they appeared, M. d'Azeglio visited various parts of Italy, diffusing those liberal principles which he saw were the only hope of the future. His views, however, were very different from those of the republican party. He was a constitutional monarchist, and strongly opposed to the insurrections and secret conspiracies which Mazzini and others so frequently fostered at that time, and which always resulted in failure and renewed oppression. His treatise *Degli Ultimi Casi di Romagna* (Of the Last Events in the Romagna), published in 1846, before the death of Pope Gregory XVI., was at once a satire on the Papal Government, a denunciation of the republican attempts at insurrection, and an exhortation to the Italian princes to adopt a national policy. M. d'Azeglio returned to Rome in 1846, after the death of Pope Gregory, in June, and, it is thought, had considerable influence in persuading the new Pope (Pius IX.) to conduct his government in accordance with liberal principles. He supported measures relating to the freedom of the press, the reform of the Papacy, and the emancipation of the Jews. In 1848 he accompanied the Papal army of observation sent from Rome to watch the insurgent forces in Lombardy and Venetia, which had temporarily discomfited the Austrians, and were being supported by Charles Albert, king of Sardinia. General Durando, who had the command of the Papal army, actively assisted the rebels, in defiance, it is said, of his instructions; and Azeglio was severely wounded in the leg at the battle of Vicenza, where he commanded a legion. In the same year (1848), he published a work on the *Austrian Assassinations in Lombardy*; and on the opening of the first Sardinian parliament he was chosen a member of the chamber of deputies. After the crushing defeat of the Sardinians at Novara, March 23, 1849,—a defeat which brought the second of the two brief wars with Austria to a disastrous close,—D'Azeglio was made president of the cabinet by Victor Emmanuel, in whose favour his father, Charles Albert, had just resigned. In this position the marquis used his high powers with great advantage to the progress and consolidation of the Sardinian kingdom. His occupation of the office lasted from the 11th of May 1849 to the 20th of October 1852, when he was replaced by Count Cavour. At the termination of the war of 1859, when a large portion of the States of the Church shook off the dominion of the Pope, and declared for annexation to the kingdom of Northern Italy, Azeglio was appointed general and commissioner-extraordinary, purely military, for the Roman States—a temporary office, which he administered in a conciliatory and sagacious spirit. He died on the 11th of January 1866, leaving a reputation for probity and wisdom, which his countrymen will not forget to cherish. His writings, chiefly of a polemical character, were numerous. In addition to those already mentioned, the most noteworthy was a work on *The Court of Rome and the Gospels*, of which an English translation, with a preface by Dr Layard, appeared in 1859. A volume of personal recollections was issued, in 1867, after M. d'Azeglio's death.

AZERBIJAN (so called, according to Sir William Ouseley, from a fire-temple; *azer*, fire, and *baijan*, a keeper), a pro-