began by satirizing the Fathers of the Jesuit College in which he was educated as early as his twelfth year, when Père le Jay is said to have prophesied of him—"qu'il serait en France le coryphée du Deïsme." His father wished him to apply himself to the study of law, and believed him to be ruined when he discovered that he wrote verses and frequented the gay circles of Paris. At twenty, Voltaire was imprisoned in the Bastile for writing satires upon the voluptuous tyrant who then misgoverned France. While there, he corrected his tragedy of *Œdipe*, which he had written at nineteen, and then he began his *Henriade*. The tragedy was performed when Voltaire was in his twenty-second year.

Kotzebue was another instance of precocious dramatic genius. He made attempts at poetical composition when about six years old, and at seven he wrote a one-page comedy. He used to steal into the Weimar Theatre, when he could not obtain admittance in the regular way, and hide himself behind the big drum until the performances began. His chief amusement consisted in putting together toy theatres, and working puppet personages on the stage. His first tragedy was privately acted at Jena, when he was a student, in his eighteenth year. A few years later, while living at Reval, he produced, among other pieces, the drama so well known in England as The Stranger. Schiller's Robbers was commenced at nineteen, and published at twenty-one. His Fiesco and Court Intriguing and Love were written at twenty-three.

Victor Hugo was an equally precocious dramatist. He wrote his first tragedy of *Irtamene* when fifteen years old. He carried off three successive prizes at the Academy des Jeunes Floraux, and thus won the title of Master in that Institution. At twenty he wrote *Bug Jargal*, and in the following year his *Hans d'Islande* and his first volume of *Odes et Ballades*. The contemporary poets of France

were then nearly all young men. "No writer," said the sarcastic critic Moreau, "is now respected in France if he is above eighteen years of age." Casimir Delevigne began writing poetry at fourteen, and published his first volume at twenty. Lammenais wrote his Paroles d'un Croyant at sixteen. Lamartine's Meditations Poetiques appeared when he was twenty-eight; and the work sold to the extent of 40,000 copies in four years.

Among English writers, the same dramatic and poetical precocity has occasionally been observed. Congreve wrote his Incognita, a romance, at nineteen, and The Double Dealer at twenty. Indeed, all his plays were written before he was twenty-five. Wycherley said of himself that he wrote Love in a Wood at nineteen, and The Plain Dealer at twenty; but Macaulay doubts the statement.* The first-mentioned play was certainly not publicly acted until Wycherley had reached his thirtieth year. Farquhar wrote his Love and a Bottle at twenty, and his Constant Couple at twenty-two. He died at the early age of twentynine; and in the last year of his life he wrote his celebrated Beaux' Stratagem. Vanbrugh was a very young man when he sketched out The Relapse and The Provoked Wife. Otway produced his first tragedy at twenty-four, and his last and greatest, Venice Preserved, at thirtyone. Savage wrote his first comedy, Woman's a Riddle, at eighteen, and his second, Love in a Veil, at twenty. Charles Dibdin brought out his Shepherd's Artifice at Covent Garden, at the age of sixteen; while Sheridan crowned his reputation for dramatic genius by bringing out his perennially interesting School for Scandal at twenty-six.

Of English poets, perhaps the very greatest were not precocious, though many gave early indications of genius.

^{*} Essays, Svo edition, p. 565.

We know very little of the youth of Chaucer, Shakespeare, or Spenser, and very little even of their manhood. So far as is known, Shakespeare wrote his first poem, Venus and Adonis-of which he speaks as "the first heir of my invention"-in his twenty-eighth year; he began writing his plays about the same time, and he probably continued to write them until shortly before his death, in his fifty-second year. Spencer published his first poem, The Shepherd's Calendar, at twenty-six, and Milton composed his masque of Comus at about the same age, though he had already given indications of his genius. But Cowley was more precocious than Milton, although he never rose to the leight of Paradise Lost. At the early age of fifteen Cowhey published a volume entitled Poetic Blossoms, contain ing, amongst other pieces, "The Tragical History of Pyramus and Thisbe," written when he was only twelve years old.

Pope also "lisped in numbers." While yet a child, he aimed at being a poet, and formed plans of study. Notwithstanding his perpetual headache and his deformity, the result of ill-health, he contrived to write clever verses. The boy was father of the man; the author of The Dunciad began with satire, and at twelve he was sent home from school for lampooning his tutor. But he had better things in store than satire. Johnson says that Pope wrote his Ode on Solitude in his twelfth year, his Ode on Silence at fourteen, and his Pastorals at sixteen, though they were not published until he was twenty-one. He made his translation of the Iliad between his twenty-fifth and thirtieth year. Joseph Addison, notwithstanding his boyish tricks and his leadership in barrings-out at school, proved a diligent student, and achieved great distinction at Oxford for his Latin verse.

The marvellous boy, Chatterton, who "perished in his pride," ran his short but brilliant career in seventeen years

and nine months. Campbell, the poet, has said of him, "No English poet ever equalled Chatterton at sixteen." His famous Ode to Liberty and his exquisite piece, The Minstrel's Song, give perhaps the best idea of the strength and grasp of his genins. But his fierce and defiant spirit, his scornful pride, his defective moral character, and his total misconception of the true conditions of life, ruined him, as they would have ruined a much stronger man; and he poisoned himself almost before he had begun to live.

A few more instances of precocious poets. Bishop Heber translated *Phædrus* into English verses when he was only seven years old; and in his first year at Oxford he gained the prize for Latin verse. Burns, though rather a dull boy, began to rhyme at sixteen. James Montgomery wrote verses at thirteen; he wrote a mock-heroic poem of a thousand lines in his fourteenth year, and began a serious poem to be entitled The World. Rogers used to date his first determination for poetry to the perusal, when a boy. of Beattie's Minstrel. When a young clerk in his father's office, he meditated a call upon Dr. Johnson, but on reaching his house in Bolt Court, his courage forstook him as he was about to lift the knocker. Two years after Johnson's death, in 1786, Rogers, when in his twenty-third year, published his first volume, An Ode to Superstition, and other Poems. Robert Burns published his first volume in the same year.

Thomas Moore was another precocious poet. He was a pretty boy; Joseph Atkinson, one of his early friends, spoke of him as an infant Cupid sporting on the bosom of Venus. He wrote love verses to Kelia at thirteen, and began his translation of *Anacreon* at fourteen. At that age he composed an ode about "Full goblets quaffing" and Dancing with nymphs to sportive measures, lead by a winged train of pleasures," that might somewhat disconcerted his virtuous mother, the grocer's wife. But Moore

worked his way out of luscious poetry; and the Dublin Anacreon at length became famous as the author of the Irish Melodies, Lalla Rookh, The Epicurean and the Life of Byron.

Some preocus young poets have died of consumption at anearly age. Henry Kirk White wrote all his poems between thirteen and twenty-one, when he died. Michael Bruce also died at twenty-one, and left behind him many short poems of great promise, which were published posthumously. Robert Pollok, author of The Course of Time, died at twenty-eight; and John Keats, the greatest and brightest genius of them all, published his first volume of poetry at twenty-one, and his last at twenty-four, shortly after which he died. Yet Keats was by no means precocious in his earliest years. When a boy at school, he was chiefly distinguished for his terrier-like pugnacity; and his principal amusement was fighting. Thought he was a general and insatiable reader, his mind showed no particular bias until he reached his sixteenth year, when the perusal of Spenser's Faery Queen set his mind on fire, and reading and writing poetry became the chief employment of his short existence.

Shelley was another "bright particular star" of the same epoch. He was precocious in a remarkable degree. When a schoolboy at Eton, and only fifteen years of age, he composed and published a complete romance, out of the proceeds of which he gave a "spread" to his friends. He was early known as "mad Shelley," or "the atheist." At eighteen he published his Queen Mab, to which Leigh Hunt affixed the atheistical notes; at nineteen, he was expelled from Univer-sity College, Oxford, for his defence of atheism; and between then and his thirtieth year, when he was accidentally drowned, he produced his wonderful series of poems. But Shelley was never thoroughly sane. He was a throbbing bundle of nerves, rather than a healthy

muscular man. He was subject to the strangest illusions, and full of eccentricities. At college he was considered to be "Cracked." Yet his intelligence was quick and subtle; every fibra of his fragile frame thrilled with sensitiveness; and the productions of his fertile genius were full of musical wildness and imagination,—perhaps more than any poems that have ever been written, either before or since his time.

Byron was another great and erratic genius, belonging to the same group as Keats and Shelley. Of turbulent and violent temper; he was careless of learning at school, yet he could "fall in love" when not quite eight years old. He was club-footed. While at Aberdeen he was nicknamed "Shauchlin' Geordie"; yet he strove to distinguish himself in the sports of youth, and, like Keats, he fought his way to supremacy amongst his schoolfellows,-"losing," as he himself says, "only one battle out of seven." While at Trinity College, Cambridge, he kept a bear and several bull-dogs, and indulged in many eccentricities. A strange training, one would think, for a poet! Yet, as early as his twelfth year, he had broken out into verse, inspired by the boyish passion which he entertained for a cousin of about his own age. With all his waywardness, Byron was a voracious reader in general literature, and he early endeavored to embody his thoughts in poetry. In his eighteenth year, while yet at college, he had printed a thin quarto volume of poems for private circulation, and in the following year he published his Hours of Idleness. Stung into revenge by the contemptuous notice of his volume by Henry Brougham in the Edinburgh Review, he published, at twenty-one, his English Bards and Scotch Reviewers. Three years later, when twenty-four, the first canto of his Childe Harold appeared. "At twenty-five," said Macaulay, "he found himself on the highest pinnacle of literary fame, with Scott, Wordsworth, Southey, and a crowd of other distinguished writers at his feet. There is scarcely an instance in history of so sudden a rise to so dizzy an eminence." * He died in his thirty-seventh year—an age that has been fatal to so many men of genius

Of other modern poets it may be summarily mentioned that Campbell wrote his Pleasures of Hope at twentytwo; Southey, his Joan of Arc at nineteen, and Wat Tyler in the following year; Coleridge wrote his first poem at twenty-two,† and his Hymn before Sunrisethan which poetical literature presents no more remarkable union of sublimity and power-at twenty-five. Bulwer Lytton produced his Ismael at fifteen, and Weeds and Wildflowers (a volume of poems) at twenty-one. Elizabeth Barrett Browning wrote prose and verse at ten, and pubblished her first volume of poems at seventeen; while Robert Browning, her husband, published his Paracelsus at twenty-three. Alfred Tennyson wrote his first volume of poems at eighteen, while at nineteen he gained the Chancellor's Medal at Cambridge for his poem of Timbuctoo, and at twenty he published his Lyrical Poems, which contained some of his most admired pieces.

Thus the tumultuous heat of youth has given birth to many of the noblest things in music, painting, and poetry. The poetic fancy may, however, pale with advancing years. Arkenside, late in life, never reached the lustre of invention displayed in his early works. Yet, in many cases, the finest productions have come from the ripeness of age.

Goethe was of opinion that the older was the riper poet. Milton had, indeed, written his *Comus* at twenty-six; but he was upwards of fifty when he began his greatest work. Although the young geniuses above mentioned did great things at an early age, had they lived longer they might have done better. The strength of genius does not depart with youth.

Yet the special qualifications which ensure future eminence, usually prove their existence at an early age-between seventeen and two or three-and-twenty. Although the development of poetic power may be slow, if the germs are there they will eventually bud into active life at favorable opportunities. Crabbe and Wordsworth, who ripened late, were early poetasters. Crabbe, when a surgeon's apprentice in Suffolk, filled a drawer with verses, and gained a prize for a poem on Hope, offered by the proprietors of a lady's newspaper. Wordsworth, though left very much to himself when a boy, and of a rather moody and perverse nature, nevertheless began to write verses in the style of Pope in his fourteenth or fifteenth year. Though Shelley sarcastically said of Wordsworth that "he had no more imagination than a pint-pot," he was, nevertheless, like Shakespeare, a poet for all time. He showed none of the precocity which distinguished Shelley, but grew slowly and solidly, like an oak, until he reached his full stature.

Scott was anything but a precocious boy. He was pronounced a Greek blockhead by his schoolmaster. Late in life, he said of himself that he had been an incorrigibly idle imp at school. But he was healthy, and eager in all boyish sports. His true genius early displayed itself in his love for old ballads and his extraordinary gift for storytelling. When Walter Scott's father found that the boy had on one occasion been wandering about the country with his friend Clark, resting at intervals in the cottages, and gathering all sorts of odd experiences of life, he said

^{*} Macaulay, Essays, Svo edition, p. 139.

[†] Coleridge, in his Lay Sermon, thus refers to the significance of the writings of young men:—"Turn over the fugitive writings that are still extant of the age of Luther; peruse the pamphlets and loose sheets that came out in flights during the reign of Charles the First and the Republic; and you will find in these one continued comment on the aphorism of Lord Chancellor Bacon. (a man assuredly sufficiently acquainted with the extent of secret and personal influence), that the knowledge of the speculative principles of men in general, between the age of twenty and thirty, is the one great source of political prophecy."

to him, "I greatly doubt, sir, you were born for nae better than a gangrel scrape-gut." Of his gift for story-telling when a boy, Scott himself gives the following account: "In the winter play-hours, when hard exercise was impossible, my tales used to assemble an admiring audience round Lucky Brown's fireside, and happy was he that could sit next to the inexhaustible narrator." Thus the boy was the forerunner of the man, and his novels were afterwards received by the world with as much delight as his stories had been received by his schoolfellows at Lucky Brown's. "Two boys," says Carlyle, "were once of a class in the Edinburgh Grammar School: John, ever trim, precise, and dux; Walter, ever slovenly, confused, and dolt. In due time, John became Bailie John of Hunter Square, and Walter became Sir Walter Scott of the Universe." Carlyle pithily says that the quickest and completest of all vegetables is the cabbage!

The growth of Scott's powers was comparatively slow. He had reached his thirtieth year before he had done anything decisively pointing towards literature. He was thirty-one when the first volume of his Minstrelsy of the Scottish Border was published; and he had reached forty-three when he published his first volume of Waverley,—though it had been partly written, and then laid aside, nine years before. Nor was Burns, though as fond as Scott of old ballads, by any means precocious; but, like him, he had strong health and a vigorous animal nature. Yet at eighteen or nineteen, as he himself informs us, the marvellous ploughboy had sketched the outlines of a tragedy.

The instances are almost equally numerous in which eminent scientific and literary men have given indications of their innate powers when comparatively young. In many cases their genius has shown itself spontaneously,—sometimes in the face of manifold difficulties and obstructions,

or, in other cases, where favorable opportunities have been offered for its development. Tasso and Galileo had alike early difficulties to encounter. Tasso's father, Bernardo, was a poet; but as his productions had only brought him poverty and misery, he determined to suppress all poetic tendencies in his son, and devote him sternly to law. In like manner, the father of Galileo, a poor noble of Pisa, who was a mathematician, carefully avoided giving his son any mathematical instruction, intending him for the practice of medicine. But nature was in both cases too strong to be suppressed. Tasso became a poet, and Galileo a mathematician and inventor. While the latter was apparently studying Galen or Celsus, he had Euclid or Archimedes buried between the books. Like Newton, he displayed an early aptitude for mechanical inventions, employing his leisure in constructing all manner of model machines. At the age of seventeen he became a student at the University of Pisa, and entered simultaneously on the study of medicine and natural philosophy. But the latter absorbed the greatest share of his attention. When only eighteen he made his first discovery of the isochronous oscillation of the pendulum, to which he was led by observing with attention the vibrations of the lamp suspended in the nave of the cathedral. It was characteristic of Galileo, then a student of medicine, to apply his discovery to determine the beat of the pulse—still an expedient in everyday medical practice; and he constructed a pendulum for the purpose, giving it the name of pulsilogium.*

At thirty, Galileo was employed by the Venetian government to erect machines for raising the water for supplying the city. Later, we find him studying the properties of the magnet, pursuing his inquiries as to the centre of gravity and the equilibrium of submerged bodies, and pro-

^{*} Parchappe, Galilée, sa Vie, ses Découvertes, et ses Travaux, p. 19.

foundly studying those laws of motion, on an accurate account of which the movements of the heavenly bodies can alone be understood. At twenty-five he published his essay on the *Hydrostatic Balance*, which so enhanced his reputation that he was appointed lecturer on mathematics to the University. Viviani positively affirms that Galileo invented the thermometer between his thirtieth and thirty third year. According to Galileo's own account, he invented the telescope at Venice in 1609, in his forty-fifth year, presenting his first instrument to the Doge "in full senate"; † and shortly after he invented the microscope.

But Galileo was as great in his age as in his youth. Indeed, his fame as a man of science has been almost eclipsed by that of the martyr. His work on The System of the World, written at sixty-eight, subjected him to the threats, if not to the actual torture, of the Inquisition. His last work, which he himself considered to be his greatest, The Dialogues on Local Motion, was finished in his seventy-second year. He was still occupied in his seventyseventh year, when he was totally blind, in applying the pendulum to clocks as a measure of time, entrusting the execution of the plan to his son; and he was engaged in this work when carried off by death. It was proposed to erect a monument over the remains of the distinguished philosopher; but, as he had lost the favor of the Church by asserting that the world revolved on its axis, the Pope would not allow it; and his body lay in an obscure corner of the convent in which it was buried for about a century, until in 1737 his remains were disinterred, and removed to the Church of Santo Croce in Florence, where they now repose under a noble monument.

As Galileo, almost by main force, took himself out of the pursuit for which his father had destined him, so Tycho

Brahe forsook the practice of law, and devoted himself to the pursuit of astronomy. He was the scion of a noble family, and his father intended him to bear arms; but Tycho had a nobler ambition: he aimed at a knowledge of the universe, especially the wonders of the earth and heavens. He was sent to college at Copenhagen, and while a student there, in his fourteenth year, his attention was directed to the subject of astronomy by the eclipse of the sun, which occurred in August 1560. Fascinated with the subject, he proceeded to study astronomy by the aid of such books as he could procure, which were few in number; but the tutor, finding that the pursuit severely interfered with his study of the law, was under the necessity of prohibiting the further study of the heavens. Tycho Brahe nevertheless pursued it in secret, and watched the stars by night, while his tutor slept. He spent all the money that he could muster upon astronomical instruments; though these were but few, and of a rough sort. He studied the constellations all the night through, and used a small globe for the purpose, no bigger than his fist, which he bought with his pocket-money.

Tycho Brahe found that the existing tables of the constellations were all wrong, and proceeded to correct them, making use of a pair of common compasses, which he used as his instrument for observing and defining the angles between the stars. He afterwards obtained a better instrument in the form of a parallactic rule. With these and other slender aids, he computed the conjunction of Jupiter and Saturn, which he effected in August 1563, before he had completed his seventeenth year. His father and relations detested his astronomical occupations, which they considered to be altogether beneath the dignity of a person of noble birth; but a certain uncle encouraged him to follow the bent of his genius, the result of which dignified, far more than it degraded, the honorable rank which he

inherited. He was sent from Copenhagen to Augsburg University; and while there he had a large quadrant constructed, with which he made his observations. In his twenty-sixth year, disregarding the opposition of his relations, he published his first treatise, *De Novo Stello*, and followed it up by a series of astronomical publications extending over a period of about thirty years.

Kepler, the co-laborer of Tycho, was, like him, an early and indefatigable student. He was weak and sickly as a child, and had many difficulties to encounter in early life. His father, though of good descent, became reduced in circumstances, and took to keeping a tavern, where his boy, the future astronomer, acted as garçon de cabaret. In his twelfth year he was sent to a monastic school at Maulbronn, where the cost of his education was defrayed by the Duke of Würtemburg. Kepler's studies were much interrupted by ill-health, which was the bane of his life. Nevertheless he made rapid progress in learning. By reason of his merit he was admitted a resident student at Tübingen University, where he took the decree of Master of Arts in his twentieth year, and at the same time attained the second place in the annual examination. About two years later, we find him appointed astronomical lecturer at Gratz in Styria; and in his twenty-fifth year he published Mysteriam Cosmographicum, his first contribution to the literature of science. This was an extraordinary work for so young a man, taking into account his bad health and the menial occupation of his early years. He continued to labor indefatigably, publishing treatise after treatise, upon magnetism and astronomical subjects, until in 1601, in his thirtieth year, he was appointed Imperial Mathematician. when he assisted Tycho Brahe in his calculation of the Rodolphine Astronomical Tables. Eight years later, his New Astronomy appeared-a work which may be said to form the connecting link between the discoveries of Copernicus and Newton.

Sir Isaac Newton was not so remarkable an instance of the early development of mathematical genius. He was not a precocious child. He was so small and weak at his birth that his mother said he might have been put into a quart mug. He was reared with great difficulty, and was scarcely expected to live. Hence he was allowed much liberty and idleness when a boy. It may be remarked, that many of the most distinguished men were, like Newton, weak and sickly in their childhood. Among the more or less puny and delicate children were Bacon; Pascal, Descartes, Newton, Wren, Locke, Adam Smith, Boyle, Pope, Flaxman, James Watt, Horatio Nelson, and William Pitt.

When Newton was sent to school, he did not particularly distinguish himself; yet at home he was unceasing in his attempts to construct machines. He was constantly occupied with his saw, his hammer, and his chisels. He made model windmills, water-clocks, and sun-dials, -one of which is still to be seen at Woolsthorpe, on the wall of the house in which he was born. He was found unfitted to carry on the business of the farm, for which his mother had destined him; but his uncle Ayscough having discovered him one day working out a mathematical problem under a hedge, instead of attending to his agricultural labors, he was permitted to follow the bent of his genius, and was sent to pursue his studies at Grantham School. At eighteen he was entered student at Trinity College, Cambridge; at twenty-one he discovered the Binomial Theorem; at twenty-three he arrived substantially at his method of fluxions; at twenty-four he made his discovery of the unequal refrangibility of the rays of light; at twenty-five he made his supreme discovery of the law of gravitation; * and at forty-four he presented the manu-

^{*}Weld, History of the Royal Society, i.pp.369,370. He had indeed discovered the most universal of all natural laws—the law of gravitation—before he was twenty-five; though one error of observation, not his own, prevented him from demonstrating it until he was nearly forty.

116

script of the *Principia* to the Royal Society. In the following year he had an attack of temporary insanity, and though he lived to the age of eighty-five, he did not, after writing out his *Principia*, give to the world any new work in any branch of science.

James Bernouilli, the first of this wonderful family of philosophers, was intended by his father for the Church; but accident having thrown some geometrical books in his way, he was led with ardor to the study of astronomy. The device, which he afterwards assumed, refers to the parental opposition which he had encountered,—Phaeton driving the Chariot of the Sun, with the motto, "Against my father's will I course among the stars" (Invito patre sidera verso). His first work, On Comets, appeared in his twenty-sixth year; and at thirty-three he was appointed Professor of Mathematics at the University of Basle.

Blaise Pascal, described by Bayle as "one of the sublimest spirits in the world," displayed his remarkable abilities at a very early age. His father had resolved to devote him exclusively to the study of the dead languages, and with that object kept all books relating to geometry out of his way. Yet Blaise, when only twelve years old, was discovered engaged in solving geometrical problems, drawing the figures with charcoal on the floor of his room. His father then allowed him to follow his bent; and at sixteen he produced a treatise on Conic Sections, of such excellence as to excite the astonishment of Descartes that the performance should be the work of a mere youth. At nineteen, he invented his machine for calculating numbers. He next occupied himself with a series of able and elaborate experiments as to the equilibrium of liquids and the weight of the atmosphere, in confirmation of the views of Torricelli; the results of which were published after his death. Pascal's scientific life ended when he had reached the age of twenty-five. His mind then became entirely devoted to religious contemplations, the results of which were embodied in his famous *Pensees*, collected and published after his death, which took place at the early age of thirty-nine. Like many other precocious geniuses, Pascal labored under the excitement of nervous disease, of which, indeed, his precocity was but a symptom.

Descartes was a delicate and fragile boy; yet, by his nineteenth year, he had formed a plan for reforming the entire system of mathematical and philosophical inquiry. Grotius was the only child out of twelve who survived infancy; he wrote Latin verses when only eight years old. Haller was an exceedingly delicate child, afflicted by rickets, sometimes an accompaniment of precocity. When only nine years old he began to compose short memoirs of great men; at ten, he framed a Chaldee grammar; at twelve, he composed verses in German; and at fifteen, he entered upon the study of medicine and physiology, in which he achieved so great a reputation.

Among other mathematicians who, like Pascal, were distinguished at an early age, may be mentioned Clairault, who produced his celebrated Curves of Double Curvature at sixteen, though he began them when only thirteen; Lagrange, who was appointed Professor of Mathematics at the Military College of Turin before he had completed his nineteenth year; Colin Maclaurin, who took the degree of M.A. at fifteen, and was elected by competition Professor of Mathematics at Aberdeen in his nineteenth year; Lalande, a boy of wonderful powers, who began to sermonize before his family at ten, was then led by reading Fontenelle's Plurality of Worlds to study astronomy, and at sixteen made a telescopic observation which determined his studies for life; Dugald Stewart—another delicate child-began at nineteen to teach his father's mathematical class in the University of Edinburgh, and two years later he was appointed joint-professor; Lessing, a whole-