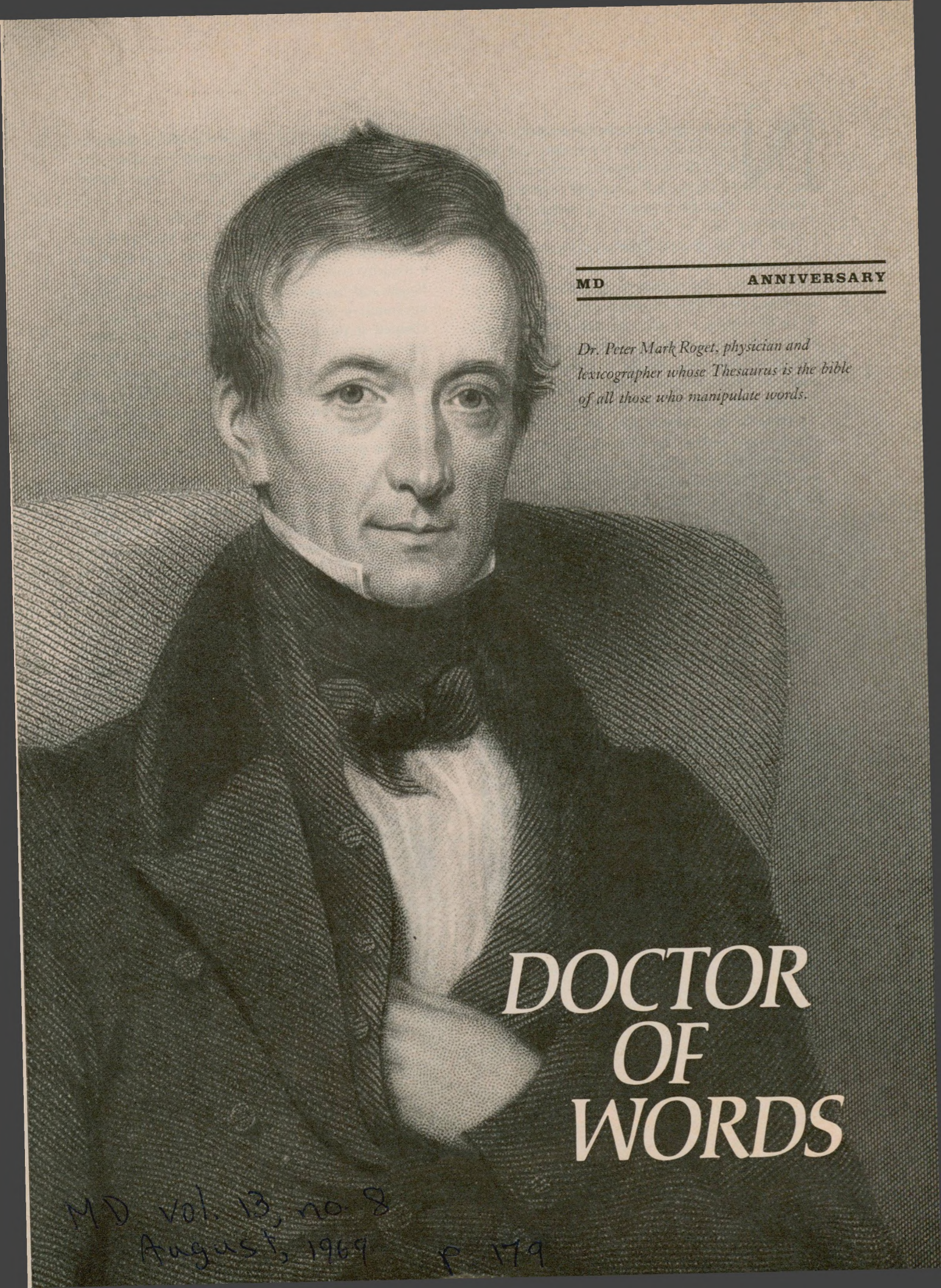


Dr. Peter Mark Roget, physician and lexicographer whose Thesaurus is the bible of all those who manipulate words.

DOCTOR OF WORDS

Near midpoint of the last century a successful London physician laid aside his medicine bag and took up his pen to compose the unique treasure-house of words that perpetuates his name: Roget's *Thesaurus*.*

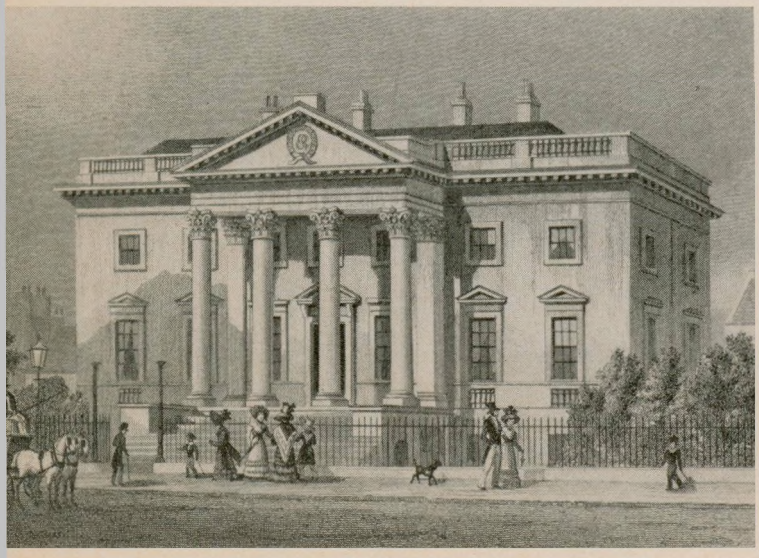
The change from physician to lexicographer was no great surprise to his friends, for Peter Mark Roget was a man of insatiable curiosity, amazing versatility and astounding productivity. As a physician and man of science he ranged over an enormous field, practicing, teaching, lecturing, writing; and as the inventor of the thesaurus he took the entire English language as his province.

TRIPS. Roget's life outside his work was singularly uneventful. In 1798, a recent graduate from medical school, he visited the Pneumatic Institute at Clifton, where Humphry Davy was investigating the effects of nitrous oxide. The following year Roget wrote Davy of his own reactions to the "dephlogisticated nitrous air." He reported that he became dizzy, experienced tingling in his hands and feet, lost his sense of weight and became drowsy; the torpor was replaced by a kind of delirium "which came so rapidly that the bag dropped out of my hands. . . . I suddenly lost sight of all objects around me, they being apparently obscured by clouds in which were many luminous points." Finding the experience decidedly unpleasant, Roget never again inhaled nitrous oxide.

The only other exciting adventure of his long life came a few years later when he toured the Continent as tutor to two young men, sons of a wealthy cotton manufacturer from Manchester. Roget and his charges went first to Paris, which he found a great contrast to London; he exclaimed at the tall houses (six and seven stories) and was appalled at the narrow streets crowded with coaches and chaises that drove with amazing speed and imperiled pedestrians. "You are required every instant to hop from stone to stone and dart from one side of the street to the other. . . . The poor foot-passengers are like . . . a parcel of frightened sheep."

The travelers spent a winter in Geneva, seeing the Alps and making a few ascents of the lower slopes. But in May, 1803, Roget found himself in trouble. Napoleon having flouted the terms of the Treaty of Amiens, France and England were again at war; the safety of English visitors in France or the French possessions was threatened, and Geneva was at the time annexed to France. Late in the month all Englishmen over 18 were commanded to give themselves up as prisoners of war. The boys were too young to be affected, but Roget was taken into custory, detained on parole for six weeks, during which time he made energetic protests, claiming himself a French citizen because of his Genevan father. He procured

*Latin, treasure.



Physicians' Hall in George Street, Edinburgh, where Roget studied medicine at the turn of the 19th century. At right, Threadneedle Street in London, showing colonnaded Bank of England. Roget was born in this district.

a document from the mayor of Geneva certifying his citizenship, with a similar statement from eight residents of the city and a copy of his father's birth certificate. He was reluctant, he later said, "to renounce my English character," but felt he had no choice; rumor had it that all Englishmen would be incarcerated in a prison camp at Verdun.

His claim was accepted, and with his young charges he made his way to Frankfort and six months later returned safely to England. Roget, usually the soul of amiability, was outraged at the malice and perfidy of the French. "The Tygers of Africa are less to be dreaded, are less ferocious than these. Monsters vomited from the deep are less terrible. . . . Volumes could not paint the anxieties, the sufferings, which I have gone through."

YOUTH. Peter Mark Roget, born in 1779, was the only son of the Reverend John Roget, a Huguenot refugee who had fled from Geneva to become minister of the French Protestant Church in Threadneedle Street in London. His wife Catherine was the sister of Sir Samuel Romilly, the noted barrister and law reformer, and both enjoyed a reputation as people of cultivated tastes, "amiable, benevolent and accomplished."

Shortly after Peter's birth the parents moved to Geneva in an effort to improve the father's delicate health but the boy was left in charge of the Romillys because of "indications of a pulmonary disease of a nature too serious to be neglected."

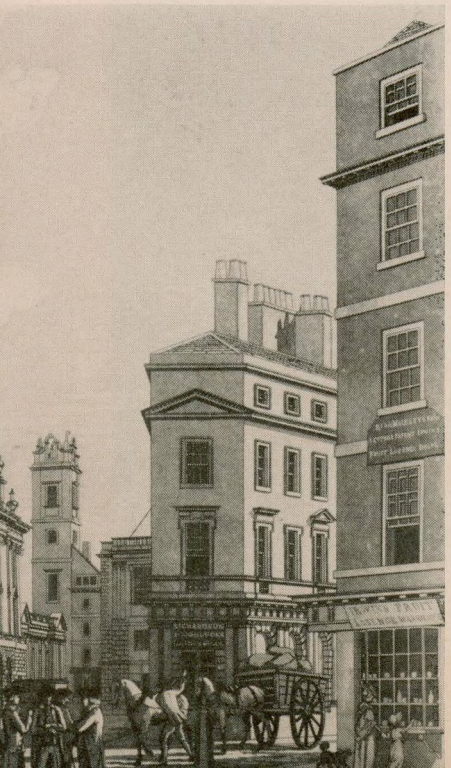
The condition apparently improved, for Peter joined his parents in 1781. His sister Suzanne (called Nanette) was born in 1783, and a few days later the Reverend Roget died. Catherine Roget promptly returned to London and devoted herself wholeheartedly to the well-being and education of her children, a task "which the rare endowments of her mind admirably qualified her to conduct and promote."*

Peter seems to have inherited his mother's systematic mind, and early began a course of self-instruction, with such success that at 14 he and his mother moved to Edinburgh and he entered the university. For two years he attended courses in the humanities, Greek, chemistry, natural philosophy and botany, and at 16 began his medical studies. The precocious youth received his medical degree at 19; he would have become a physician a year earlier but he contracted typhus in the wards of the infirmary and came close to death.

Roget celebrated his graduation with a walking tour of the Lake District,† proving his powers of observation by noting the absence of consumption among fishermen and other inhabitants of the area. He intensified his medical training by attending lectures and courses in London, including work at St. George's and St. Bartholomew's hospitals. During this period his avid curiosity led him to spend six weeks working with the utilitarian philosopher Jeremy Bentham, who

*T. E. Pettigrew in *Medical Portrait Gallery*, London, 1840-41.

†Romanticized by Wordsworth and Coleridge.



Infirmary in Manchester, in northern England, where Dr. Roget and colleagues founded the medical school and where Roget practiced.

was immersed in a project to utilize London sewage for fertilizer.

CAREER. After a year as private physician to the marquis of Landsdowne, Roget began his distinguished medical-scientific career in earnest by establishing in 1805 a private practice in Manchester. He was appointed physician to the Manchester Infirmary, which combined the advantages of a large hospital and extensive dispensary, a ward for the treatment of fever patients and a lunatic asylum.

With the opportunity thus afforded for medical instruction, Roget and two colleagues became the true founders of the medical school by providing students with the first regular course of lectures and demonstrations in anatomy and physiology. During his three years in Manchester his lectures on "The Physiology of the Animal Kingdom" drew large and appreciative audiences and he was also active in the town's Philosophical and Literary Society.

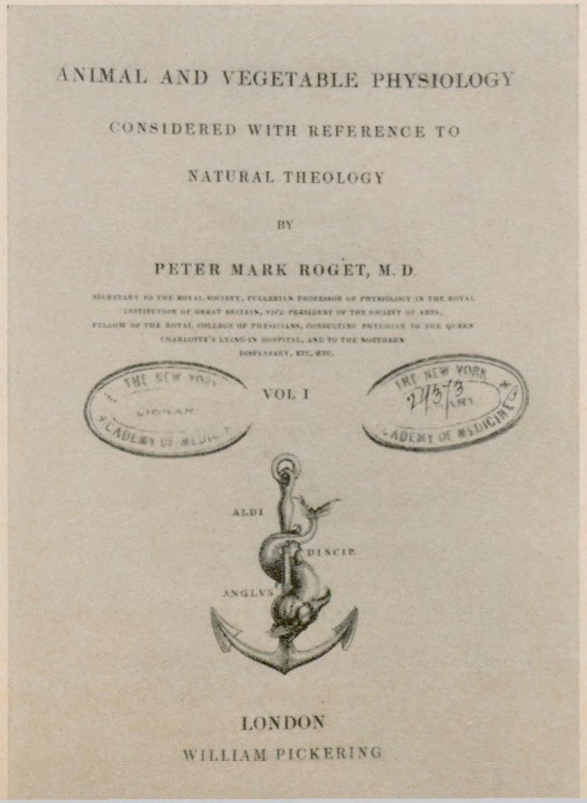
Roget moved to London in 1808, feeling that it would provide wider opportunities for his interests and talents, and there he pursued a career of almost unparalleled activity for 30 years. As a lecturer, he was famed for his vivid presentations, and his talks on animal physiology at the Russell Literary and Scientific Institution won him an enviable reputation. His method was to survey the classifications, then discuss the mechanical functions, the nervous system and intellectual faculties and sometimes add comments on reproduction and evolution. He always kept as the main thread of the lectures the "proofs of the infinite wisdom and benevolence which are displayed in every part of the universe but which are nowhere so eminently conspicuous as in the structure and economy of animal creation."

Licensed by the Royal College of Physicians, he helped to found the Northern Dispensary, where he volunteered his services for 19 years, and found time to publish more than 100 papers on divers subjects. His contributions to the sixth and seventh editions of the *Encyclopaedia Britannica* included such entries as Ant, Apiary, Bees, Cranioscopy, Deaf and Dumb, Kaleidoscope, Phrenology, Physiology, and he wrote numerous biographic memoirs of physicians and scientists.

While maintaining a busy private practice, the indefatigable physician helped to found the Medical and Chirurgical Society of London and became its secretary in 1811, its president in 1829. He was appointed physician to the Spanish embassy in 1820 and three years later was one of two physicians appointed to take charge of the medical treatment of prisoners at the Milbank Penitentiary on the occasion of a severe epidemic of scurvy and dysentery, an arduous duty that occupied him for 15 months.

In 1831 he was elected a Fellow of the Royal College of Physicians and the following year delivered the Gulstonian Lecture on "The Laws of Sensation and Perception." In 1834 appeared his two-volume *Outline of Animal and Vegetable Physiology*, part of a series of treatises commissioned by the earl of Bridgewater in "honor of the Power, Wisdom, and Goodness of God, as manifested in the Creation." Roget's conclusion was that life is peculiarly characterized by intention, and that a unity of design and identity of operations pervade the whole of nature and clearly point to the "one great and orderly Cause of all things . . . whose mighty works extend throughout the boundless regions of space, and whose comprehensive plans embrace eternity." This excellent introduction to the study of natural history inspired a biographer to conclude: "The reader, professional and general, will never consult the pages of Dr. Roget's treatise in vain, nor rise from its perusal without having received instruction and improvement. The style in which it is written, and the feeling which pervades the whole, is calculated to mend the heart as well as to inform the understanding."

Motivated by a lifelong desire to disseminate practical information as widely as possible, Roget founded the Society for the Diffusion of Useful Knowledge and wrote a series of popular manuals for its library on such topics as galvanism and electromagnetism. He played a prominent part in the establishment of the University


ANIMAL AND VEGETABLE PHYSIOLOGY

CONSIDERED WITH REFERENCE TO

NATURAL THEOLOGY

BY

PETER MARK ROGET, M.D.

VOL. I

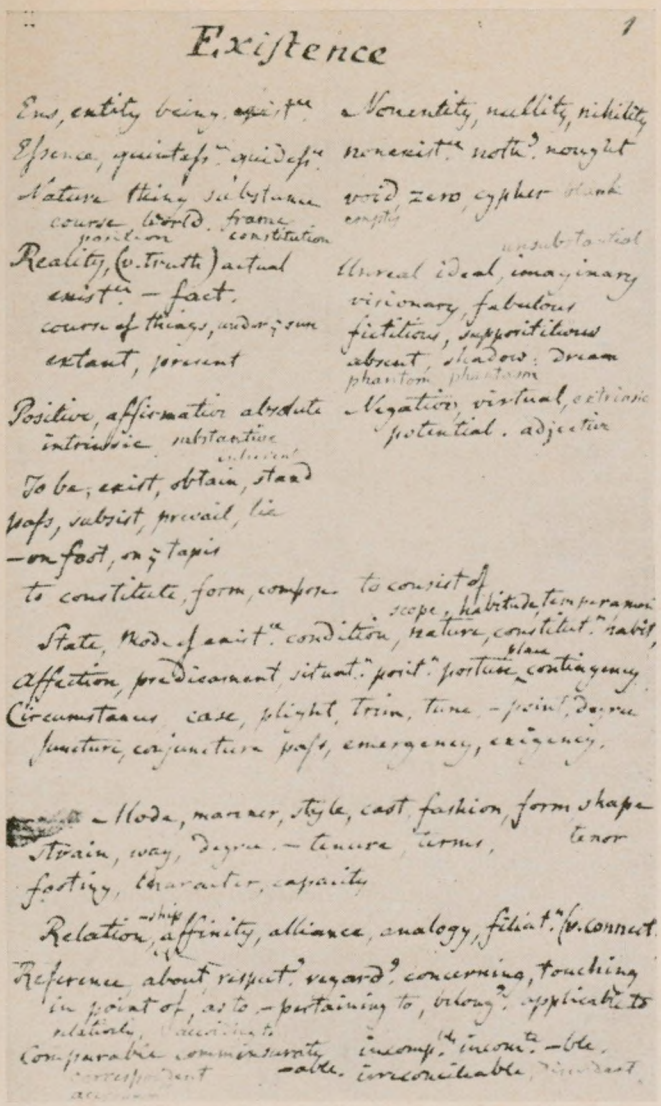
ALDI

DISCIP

ANGLVS

LONDON

WILLIAM PICKERING



Existence

Ens, entity, being, esse, ... Nonentity, nullity, nihility
Essence, quintessence, quiddity ... nonexistence, nothing, naught
Nature, thing, substance, course, world, frame, constitution, position ... void, zero, cypher, blank, empty
Reality, (v. Truth) actual existence — fact, course of things, undersome, extant, present ... unsubstantial, ideal, imaginary, visionary, fabulous, fictitious, supposititious, absent, shadow, dream, phantom, phantasm
Positive, affirmative, absolute, intrinsic, substantive, inherent ... Negative, virtual, extrinsic, potential, adjective
To be, exist, obtain, stand, stay, subsist, prevail, lie, — on foot, on the tapis
to constitute, form, compose ... to consist of
State, mode of existence, condition, nature, constitution, habit, affection, predicament, situation, point, posture, contingency, Circumstance, case, plight, trim, tune, — point, degree, juncture, conjuncture, pass, emergency, exigency,
— Mode, manner, style, cast, fashion, form, shape
Strain, way, degree, — tenure, terms, tenor
footing, character, capacity
Relation, affinity, alliance, analogy, filiation, connection
Reference, respect, regard, concerning, touching, in point of, as to, — pertaining to, belonging, applicable to, relative, ... incomparable, incommensurable, incommensurable, inconceivable, irrelevant, correspondent, accordant

of London, became chairman of its medical faculty, examined students in physiology and comparative anatomy and sat in its senate until his death.

INVENTOR. Utilizing his considerable mechanical and mathematic aptitudes, Roget devised in 1814 a slide rule, a logo-logarithmic machine so graduated as to be a measure of the power of numbers. His article on this and other slide rules was presented to the Royal Society, and as a consequence he was elected a Fellow in 1815.* In 1827 he succeeded astronomer Sir John Herschel as senior secretary of the society and held the post until he was 70.

As hobbies he spent much time trying to construct a calculating machine, and devised and solved chess problems that were printed in the *Illustrated London News*. He invented a pocket chessboard called the "Economic Chess Board" which used small cardboard pieces placed in the folds of the paper board. Long interested in mnemonics, Roget used a system that offered two basic means of achieving a "memory technique:" one recorded chronologic data connected with the ordinary succession of figures by a methodic arrangement in a well-known space, such as a room; the other helped in remembering figures by associating them with words whose letters represented separate numbers. Roget became exceedingly adept at this method of memorizing, set logarithms to doggerel phrases which he repeated as he strolled, often startled his friends by

*The proceedings of the Royal Society give the date as 1815, but the *Lancet* obituary on Dr. Roget listed it as 1814.

Above is first page of classified catalogue of words completed by Dr. Roget in 1805, the germ of the Thesaurus which became world famous.

which are serrated, so as to fit them for t
closest application to any kind of surface.

the *Tabanus*, or horse-fly, each foot is furnish
with three suckers. In the *Cimbex lutea*,
yellow saw-fly, there are four, of which one

Roget drew large audiences when he lectured on the physiology of animals and plants. Opposite is frontispiece of his textbook on physiology, with an extract at right. Roget believed that there was a unity of design throughout nature.

stating accurately the value of *pi* to 40 or 50 decimal places.

Dr. Roget was also a fellow of the Geological, Astronomical, Zoological and Entomological Societies, a vice-president of the Society of Arts, a member of the Royal Institution of Great Britain and the Institution of Civil Engineers and of various literary societies.

Little is known of Roget's abilities as a clinician, and his personal life remains an enigma. That he was a man of mild temper, benevolence and industry is undisputed, but anecdotes to prove the benign personality are lacking. Established is that the versatile doctor, at 45, took as wife Mary Hobson, the only daughter of a prominent Liverpool merchant; the union seems to have been happy but brief, for she died eight years later, leaving two children. There is mention of the family visiting Rouen and Calais and boating on the Seine, but no other glimpse of home life.

LEXICOGRAPHER. Weary of his medical duties and his work as secretary of the Royal Society, Roget retired from practice in 1840, at the age of 61. By no means ready to stagnate mentally, he turned his attention to the compilation of a catalogue of words which he titled *Thesaurus of English Words and Phrases Classified and Arranged so as to Facilitate the Expression of Ideas and Assist in Literary Composition.* In his preface he mentioned that he had, as far back as 1805, completed a classified catalogue of words on a small scale to facilitate his own literary efforts; systematic in all things, he was convinced that man's vocabulary was usually inadequate to the job at hand, and that the appropriate word or term could not be conjured up like spirits; and since language was an instrument of thought, "everyone should acquire the power and the habit of expressing his thoughts with perspicacity and correctness."

His search for the *mot juste* resulted in what was the converse of an ordinary dictionary, beginning not with words arranged in alphabetic order but according to the ideas which they express. "The idea being given, to find the word or words by which that idea may be most fitly and aptly expressed." His categories were logically ordered and established six primary classes: Abstract Relations, Space, Material World, Intellect, Volition, Sentient and Moral Powers. Perhaps his happiest inspiration was to use methodically the correlation of positive and negative; by his setting up categories of synonyms and antonyms against each other, Roget ingeniously brought into play a wealth of related contexts.

The thesaurus reflected Roget's training in the taxonomy of natural history: ". . . the sectional divisions I have formed correspond to Natural Families in Botany and Zoology, and the filiation of words present a network analogous to the natural filiation of plants or animals." Thus Roget was in debt to the classifications of the Swedish botanist Linnaeus and the systems of the French encyclopedists. The intellectual principle he followed foreshadowed the emphasis on epistemology and the attention to semantics which became part of 20th century philosophy.

His goal of classifying all human thought in a series of verbal categories was essentially unattainable, and quite irrationally, he seems to have hoped to halt the fluctuations of the meaning of words. Nevertheless, the popularity of the *Thesaurus* is evidenced by the fact that after it was published in 1852 it went through 28 printings in the author's lifetime. The 1879 edition, which contained his last corrections, was edited by his son John Lewis Roget, a lawyer and distinguished watercolorist. Subsequent editions have enriched his concept, with the vocabulary enlarged and improved, but his original organization remains essentially intact.

Two years after the appearance of the first edition, one Barnas Sears, D.D., secretary of the Massachusetts Board of Education, penned a rebuke of Roget in the *North American Review.* His grounds: the *Thesaurus* would encourage a horde of mute Miltons and speechless Burkes to rush into print. All the tools and implements employed by all the poets and philosophers of England could now be obtained at Dr. Roget's shop, and so an immense mass of raw material of expression would be speedily manufactured into history, philosophy, poetry and eloquence.

Sears claimed that the *Thesaurus* must fail because it was an outside remedy for an interior defect, permitting the would-be writer "to arrive at ends by a dextrous dodging of means, to accelerate the tongue without accelerating the faculties." What was really needed to facilitate the expression of ideas was a book to "facilitate the conception of ideas."

In the last years of his life Roget remained active and alert, and bore his progressive deafness with customary patience and fortitude. Even in the year of his death in 1869 he continued to tinker with his thesaurus. He died at the age of 90, peacefully and without suffering.

SUMMING UP. By Hamlet: "Words, words, words."