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Benjamin Franklin

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Abstract

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BENJAMIN FRANKLIN

Terra cotta bust

by Jean Jacques Caffieri

1777

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By

FORRESTER COCKBURN

ON THE EVENING of Tuesday, the 29th of January 1957, Mr Eldred D. Kuppinger, United States Consul General in Edinburgh, presented the Franklin Commemorative Medal to the Society on behalf of The Congress of the United States of America. The ceremony took place in the Society's premises at 7 Melbourne Place where the Senior President, Mr T. Ramsay McCall, received the medal on behalf of the Royal Medical Society.

Benjamin Franklin was born in Boston on January 17, 1706, and to commemorate the 250th anniversary of his birth The Congress of the United States of America authorised The Franklin Medal to be awarded to the Societies, Institutions and Enterprises of which Franklin was a member, founder or sponsor. Ten leading British Societies in the eighteenth century counted Franklin an honoured member: The Royal Society of London; The Royal Society of Arts; The Royal Society of Edinburgh; The Royal Medical Society; The Philosophical Society of Edinburgh; The Society of Antiquaries; The Manchester Philosophical and Literary Society; The Medical Society of London; The Society of Thirteen; The Society of the Constitutional Whigs. Such was the range of interest in this man that he was acknowledged by scientist, philosopher and politician as commanding of their respect, admiration and gratitude. Through time he became a member of twenty-five learned societies in America, France, the Netherlands, Germany, Italy, Russia, Spain and Great Britain.

From what beginnings did such a man rise? Born in Boston the youngest son of Josiah and Abiah Franklin, he had nine brothers and five sisters. His father, a candle-maker, could afford him only two years of formal schooling, after which time he was apprenticed to his brother James, a printer. Tiring of his lack of freedom he ran away from his apprenticeship to New York and later went to Philadelphia where he gained employment as a printer. It was in 1724 that Franklin first visited this country and worked at his trade in London. His stay was not long, however, for he returned to Philadelphia in October 1726, and formed a printing company in that city some two years later. His ability as a business man ensured his prosperity and he had acquired a small fortune by the time he reached the age of forty years. The future thus fairly well assured, thoughts of retirement began to assail him.

With what activities did this man fill his time? It was at this point in his career that the question of the nature of electricity began to interest him and a gift of apparatus from the Royal Society of London made possible the furtherance of electrical experiments which he had started in 1746. His retreat from the management of the Philadelphia printing establishment in the following year allowed him full time for his researches into the nature and relationship of lightning and electricity. With his classic kite experiment he demonstrated the identity of these phenomena, invented the lightning conductor, and later introduced electrotherapy in nervous disorders.

About this time, his brother John was troubled with retention of urine. Benjamin consulted a silversmith and gave instructions for the design and making of the first flexible catheter to be used in America, and had it sent to his brother. Agricultural techniques, too, underwent a number of reforms under his guidance, for his new home, a three hundred acre farm in New Jersey, provided him with the opportunity for experimentation in this branch of science. Franklin greatly enjoyed his new life on the farm from which he derived both mental and physical benefit. He once wrote: "Farming is the most honourable of all employments, the most useful in itself and rendering man the most independent."

How any one man could cope with such a variety and intensity of work is beyond the ken of most for, in spite of his farmwork and inventions, Franklin still found time to correspond with many friends all over the world. He took a keen and active interest in world affairs generally, as well as in science and the arts. Music too came within his field of study and activity both as a composer and as an instrumentalist. By the invention of the Armonica, an instrument similar to Musical Glasses, he provided a source of music which appealed to many, including Beethoven and Mozart who both wrote compositions specifically for it.

Entering the political field through his appointment as joint Deputy Post Master General of North America, Franklin found himself almost at once involved in conflicts pertaining to the government of the "States" of North America, and more particularly to the strained relationships between our two countries. At the Albany Congress in 1754 he put forward a plan of Colonial union and soon after this, as agent for the Pennsylvania Assembly, he returned to the United Kingdom to strive for the restoration of good feeling between the American Colonies and this country.

During a tour of duty which lasted nearly five years, Franklin first set foot in Scotland in the year 1757. Short though this visit was, he made a number of friends, amongst whom was Dr Cullen, a founder of the Royal Medical Society and at that time one of the leading physicians in Edinburgh. The Town Council made Franklin a "Burgess and Guild Brother" of the city; the University of St Andrews made him an Honorary Doctor of Laws, and he became a member of the Philosophical Society of Edinburgh, all within a comparatively short space of time. Dr John Fothergill, another member of the Society, was Franklin's particular friend and attended him at about this period for recurrent colds and fever with severe head pains. In his autobiography, Franklin records that he met with Dr Fothergill and David Barclay on a number of occasions and discussed at length, a plan for a reconciliation between the British Government and the Colonies.

Smallpox, which was at this time rife in the North American Con-

continent, had caused the death of one of Franklin's children so that a consideration of the nature of this disease and its treatment was often foremost in his discussions with the physicians of this country. Among the medical men with whom he argued this problem was William Heberden and the result was that fifteen hundred copies of a pamphlet on inoculation for smallpox were dispatched to America for free distribution. Heberden, who composed the pamphlet, desiring no personal credit, did not append his signature but Franklin disclosed the author's name in order that the instructions should carry authority.

Home leave in 1762 was short-lived, for two years later he was again in England as agent for the Pennsylvania Assembly, serving part of the time also as agent for Georgia, New Jersey and Massachusetts. Called to the House of Commons in 1766, he was examined in support of the repeal of the Stamp Act.

Perhaps Franklin's best known contribution to medical science was made in 1775 when, because of failing sight, he required to wear spectacles. This impediment far from handicapping a seventy-year-old man merely provided him with the opportunity to invent bifocal lenses. In a letter written ten years later he tells how he instructed the famous London optician, Dolland, to make the upper half of the lens "least convex for distant objects," and the lower half "most convex for reading." Even at such a critical stage in the Colonial struggle, Franklin's mind was not taken up entirely with affairs of the State, but could afford some time for the investigation of scientific problems as well.

As one of a committee of five, he helped to draft "The America Declaration of Independence" in 1776. Throughout the ensuing American War of Independence, Franklin spent most of his time in France acting as Minister Plenipotentiary of the United States to France. Even in the darkest days of misunderstanding between our countries, however, Franklin maintained a steady correspondence on scientific matters with his friends in Britain. As sponsor of the order which gave immunity to Captain Cook on his voyage of exploration, the sincerity of his desire for a united world effort to further the acquisition of knowledge was made clear for all to see. Recognition of this act was made a year after the signing of the Peace Treaty, when the Royal Society of London awarded him a gold medal struck in Cook's honour. It was in the same

The United States Post Office have issued many stamps portraying Benjamin Franklin. The three-cent rose-carmine illustrated here was issued on January 17, 1956, the 250th anniversary of Franklin's birth. It reproduces "Franklin Taking Electricity from the Sky," a celebrated painting by Benjamin West, the artist from Pennsylvania who became President of the Royal Academy



An External Laxative

From "Of Purgatives" . . . Thos. Livingstone. 1751.

"Heurnicus in his commentary upon Hippocrates informs us that the Ancients purged themselves by washing their feet in a decoction of White Hellibore, and that a piece of Hellibore which was used to keep open an issue proved a purgative, and a kind of vermifuge ointment in which Coloquinlida is one ingredient, when externally applied to the body purges not only children but also adults. Mr Munro gives us a pretty example of this in a young lady who had an ulcer of her leg which it seems had been dressed with a tincture of Myrrh and Aloes. She was brought extremely low by an obstinate diarrhoea which no medicine could have the least effect on, till he ordered the dressing to be changed, upon which the diarrhoea was removed."

year, 1784, that the Royal Medical Society made Franklin an Honorary Member for his services to Medicine.

What were these services which our predecessors saw fit to honour? Allusions have already been made to his inventions and their application to Medicine. Public Health, too, was almost an obsession with him and through the medium of *Poor Richard's Almanac* he would convey his opinions to doctors and public alike. Some of the earliest observations on lead poisoning as an industrial hazard were put forward by Franklin in 1786 when he wrote of the disease as affecting—"glaziers, potters, letter-founders, plumbers, white lead makers, and painters." From a letter written to Benjamin Rush it is seen that his views on the common cold still hold good to-day. He writes: "I hope that after having discovered the benefit of fresh and cool air applied to the sick, people will begin to suspect that possibly it may do no harm to the well," and adds, "people often catch cold from one another when shut up together in close rooms, coaches, etc." We find too that the organisation of the vast hospital system in the United States owes much to the work of Franklin in the eighteenth century. He formulated a general plan for the construction and administration of a large number of these hospitals. "Early to bed and early to rise" is one of Franklin's popular medical aphorisms which is still in use to-day.

Franklin's own health, apart from several severe attacks of gout, had on the whole been good, until at the age of 73 years he developed symptoms of a stone in the urinary bladder. Operation was considered by John Hunter and other eminent surgeons of the time but all advised against such a measure because of the patient's advanced age. The pain he suffered from this complaint must have been more than most could bear, but he did not let it interfere with his duties during the war, and in the subsequent peace negotiations. Eventually, increasing doses of laudanum were necessary and finally, after being bed-ridden for a year, Benjamin Franklin died in coma on the night of April 17, 1790, at the age of 84.

Inscribed on the Memorial Medal are these words: "Wise and Good Men are the Strength of a Nation." Who better exemplifies this principle than Benjamin Franklin?

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