



Count Rumford, founder of the Royal Institution, profits by one of his own inventions in this Gillray caricature.

# Count Rumford and the Royal Institution

by E. C. WATSON

**T**HE Royal Institution of Great Britain, founded in 1799 by Benjamin Thompson, Count Rumford, for the purpose of “diffusing the knowledge and facilitating the general introduction of useful mechanical inventions and improvements, and for teaching by courses of philosophical lectures and experiments the application of science to the common purposes of life,” has exerted an enormous influence upon the development of science through the original researches of Thomas Young, Humphry Davy, Michael Faraday, John Tyndall, James Dewar, John William Strutt, third Lord Rayleigh, William Bragg and others, which have been conducted in its laboratories. An account of the founding, the founders and the early years has been given by Henry Bence Jones, Secretary of the Institution from 1860 to 1873. As he points out, the “usefulness of science to the common purposes of life” gradually ceased to be the primary object; “the school for mechanics, the workshops, the models, the kitchen, and the journals died away and the laboratories, the lectures and the library became the life of the new Institution” and its purpose, “the diffusion and extension of useful knowledge in general.”

“Lectures on scientific subjects, to be given in a lecture room with the most up-to-date facilities for experiment and demonstrations,” were, however, a part of the original scheme. These have continued without interruption to the present day and, because of the abilities of the Institution’s distinguished line of professors, have been just as influential in *diffusing* a knowledge of science and its methods as were the original researches of these men in *adding* to useful knowledge.

The picture on page 11 is a burlesque, by that incomparable caricaturist, James Gillray, of one of the early lectures. The lecture room and much of the apparatus are well portrayed and many of the figures in the audience can be identified as the more distinguished members of the Royal Institution. The names of many of these will be recognized even today. Thus the gentleman being experimented upon is the diplomat and politician, John Cox Hippisley, who in 1800 became one of the managers of the Institution. The lecturer is Thomas Garnett, the first professor. The lecture assistant (holding the bellows) is Humphry Davy, soon to become Garnett’s successor and the most famous chemist of his age. In the upper right-hand portion of the print (to the left of Davy) Count Rumford is easily recognized; and in the circle beginning with him are Isaac Disraeli (in spectacles), Earl Gower (afterwards Marquis of Stafford), Lord Stanhope (in top-boots and leaning on a stick), Earl Pomfret, Sir Henry Englefield, Miss Lock (afterwards Mrs. Angerstein), Lady Charlotte Denys and her daughter, Mr. Sotheby (with cane), Mr. Denys



Another famous Gillray caricature—A lecture at the Royal Institution on “Pneumatics! or the Powers of Air.”

(in spectacles) with his son, Mr. Tholdal (a German attaché), and others who cannot be identified at this date. On the seat near Lord Stanhope is an open pamphlet entitled, “Hints on the nature of air required for the new French diving-boat.” This probably refers to the *Nautilus*, the submarine which Robert Fulton built in 1800 with funds provided by Napoleon and with which he carried out successful tests in the Seine and at Brest.

Count Rumford, founder of the Royal Institution, himself made “useful mechanical improvements” in the construction of fireplaces, chimney flues, and kitchen utensils—a field of research which he shared with his contemporary, Benjamin Franklin. His attention was first directed to such matters by his organization of relief work among the poor in Munich and his attempts to produce cheap and nutritious food. Many of the devices and conveniences now employed in our kitchens owe their origin to him. So great, indeed, was his interest in these and allied subjects that he devoted five of his eighteen *Essays, Political, Economical, and Philosophical* to them. These five essays occupy nearly 600 pages in his *Complete Works* and make most interesting reading. He reports, for example, that at one time he had not less than 500 smoky chimneys on his hands, and proceeds to give very simple and intelligible information about the philosophic principles of combustion, ventilation and draughts and to prepare careful diagrams showing the proper measurements, disposal and arrangements of all parts of a fireplace and flue. His aid and advice were always ready and were given indiscriminately to all sorts and conditions of men. The immediate fame which

this type of work brought Rumford has been recorded by Peter Pindar as follows:

Muse, at the sound of “Rumford” raise thy voice,  
And bid our Kitchen-furniture rejoice.—  
Though scant our store, a hempen String (alack!  
The simple substitute for spit and jack),  
A Knife and Fork, a Dish, a Spoon, and Platter,  
Shall stir their stumps, and make a jovial clatter;  
The Broom shall hop, as merry as a grig;  
And, pleased, the dainty Dishclout dance a jig;  
Expressing thus in *gratitude* their souls  
To him whose wisdom saves us *pecks* of coals,  
And means (for Pitt’s damn’d taxes this require)  
To teach us soon to roast *without a fire* . . .

Knight of the Dishclout, whereso’er I walk,  
I hear thee, Rumford, all the kitchen-talk:  
Note of melodious cadence on the ear,  
Loud echoes “Rumford” here and “Rumford,” there.  
Lo, every parlour, drawing-room, I see,  
Boasts of thy stoves, and talks of naught but thee.  
Yet not alone my Lady and young Misses,  
The Cooks themselves could smother thee with kisses:  
Yes; Mistress Cook would spoil a goose, or steak,  
To twine her greasy arms around thy neck.  
Through Newspaper, through Magazine, Review,  
Happy mine eyes thy splended track pursue;  
Thy sage Opinion in each Journal read,  
A vein of Silver ’midst a load of Lead.

The amusing caricature on page 10, also by James Gillray, tells the same story.