

seasonal influence | fireplaces

on fire

COUNT RUMFORD & THE RESURGENCE
OF HIS REVOLUTIONARY FIREPLACE



Photo courtesy of the New Hampshire Historical Society.

Poet Celia Thaxter had one; textile magnate James Rundlet insisted on one; Thomas Jefferson sought to improve upon it; and Henry David Thoreau regarded it among the principal comforts of civilized men. It is a Rumford fireplace. Once the most popular fixture in eighteenth- and nineteenth-century homes, Rumford fireplaces are enjoying a revival, attributable in large part to a sleek design, and recent trends toward green home construction.

But just what is a “Rumford” fireplace? According to Jim Buckley, a national expert on the fireplace’s history and construction, Rumford fireplaces are tall and shallow, with streamlined throats that release smoke with little loss of heat. The invention of a rounded breast—the part of the fireplace that carries smoke up the chimney—was considered revolutionary in the late seventeen hundreds, and is integral to a Rumford design.

“The traditionally tall Rumfords look appropriate in today’s popular, classically designed homes with tall ceilings,” writes Buckley in the article *Rumford... The Fireplace That’s More Like it Used To Be*. “And their legendary heating efficiency is attractive to those who are building energy-efficient homes and are concerned about air quality.”

WRITTEN BY LYNN FELICI-GALLANT

RUMFORD'S NEW HAMPSHIRE HISTORY

Count Rumford, for whom the fireplace is named, was born Benjamin Thompson in Woburn, Mass., in 1753. A farmer's son of humble origins, Thompson spent most of his childhood and adolescence in and around Boston, apprenticing in the import trade, and experimenting in the sciences.

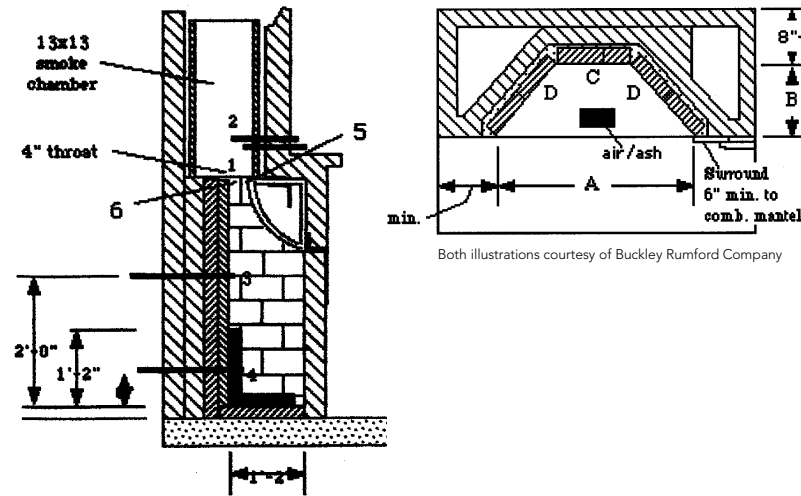
At nineteen, Thompson moved to Concord, N.H.—formerly named Rumford—to teach. There he met and married Sarah Rolf, a wealthy, widowed woman and the richest landowner in town. Through the marriage, Thompson inherited two-thirds of Concord's land, and assumed the role of a gentleman.

The couple subsequently moved to Portsmouth, N.H., where Thompson met Governor Wentworth, who appointed him a major in the 2nd Provincial Regiment of the New Hampshire Militia. Thompson's ties with the aristocracy during the American Revolution, however, led him to oppose the rebels in favor of the loyalists. Though acquitted of "being unfriendly to the cause of liberty," he ultimately abandoned his wife to join the British Army.

EXPERIMENTS WITH HEAT & FIREPLACE DESIGN

It was during his tenure with the British Army that Thompson began questioning the prevailing thinking about heat and thermal dynamics. His experiments with gunpowder were so successful he was elected to the prestigious British Royal Society at the age of twenty-six. For the next twenty years, Thompson traveled from England to Germany, France, and Bavaria, conducting scientific

Top: A modified Rumford crafted of vintage granite, brick, and bluestone graces the Kittery, Maine, home of Ed Sabatini. Design and installation by Gallant Masonry of Kensington, N.H. | Right: This diagram of a Rumford depicts its characteristic tall and narrow design. | Facing Page: Benjamin Thompson bids his family farewell to join the British Army in *Count Rumford's Farewell*, oil on canvas, D.G. Lamont, c. 1850.



experiments and encouraging social reform. In 1791, the Elector of Bavaria named him a count of the Holy Roman Empire for his contributions to society and the sciences. He chose “Rumford” as his name, a tribute to the New Hampshire town where his impressive career began.

Rumford is credited with multiple inventions, including the drip coffee pot, wax candles, the double boiler, and thermal underwear, and experiments in social reform, such as the establishment of free schools for poor children, and the creation of a public English garden in Munich, which is still among the largest urban parks in the world.

It was his state-of-the-art fireplace design, however, that garnered him the most attention.

“Count Rumford realized that the only useful heat generated by a fireplace is radiant heat,” notes Buckley. In a typical, non-Rumford-style fireplace,

Buckley continues, the fireback is sloped or rolled forward on a sharp angle (see diagram on page XX). Incoming air from the room mixes turbulently with smoke from the fire and needs a large throat, or opening, to release the mix of smoke and heat.

Rumford posited that a large throat and sharply angled back was utterly inefficient; heat, as well as smoke, was released up the chimney. As a result, he designed a fireplace with a high, expansive opening, shallow firebox, and widely splayed jambs (sides) to reflect as much radiant heat into a room as possible. He then straightened the fireback, and curved the throat.

Rumford published two essays in 1796 and 1798 detailing improvements upon the fireplace that immediately drew worldwide attention. According to Buckley, “by the mid eighteen hundreds the word ‘Rumford’ was synonymous with fireplace.”

SOCIAL SIGNIFICANCE OF RUMFORD'S INVENTIONS

Rumford's scientific inventions had far-reaching social implications as well. Though many regard today's fireplaces in purely aesthetic terms, the hearths of the eighteenth and nineteenth centuries were, in fact, life-sustaining. Fireplaces were not only used for cooking; they provided the sole source of heat for the home, and heated water for bathing and drinking.

The Rundlet-May House in Portsmouth, N.H., offers a prime example of the social implications of Rumford's ingenuity. According to Elizabeth Farish, regional site manager for Historic New England, James Rundlet was an extremely wealthy merchant who insisted his 1807 home be equipped with the latest technologies. The kitchen features a Rumford fireplace, and it was among the first in the area to showcase a sophisticated

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Rumford range and closed oven roaster on either side of the fireplace.

“Prior to the invention of the roaster and range, servants and housewives did all of the cooking over fire,” notes Farish. “It was hot, sweaty work, and at one time the second largest cause of death among women after childbirth. Skirts would catch fire and women would be burned. They inhaled smoke constantly; it was a wicked way to make a living.”

Rumford’s invention of the roaster oven and range thus improved life for an entire population of servants, housewives, and families.

MODERN APPLICATION OF A RUMFORD FIREPLACE DESIGN

By the late nineteenth century, however, Rumford fireplaces had receded in popularity. According to Buckley, scientists, inventors, builders, and others manipulated and distorted Rumford’s design.

“There were misinterpretations of what constituted a Rumford right from the beginning,” Buckley writes. “Jefferson himself made some drawings in an effort to improve upon the design, but neglected to round the breast. This, and other misinterpretations, led Rumfords to fall out of favor.”

Today, Rumfords are enjoying a revival due to extensive renovations of historic homes, and renewed interest in early American and classical architecture.

Jim Gallant, owner of Gallant Masonry in Kensington, N.H., has been building Rumford-style fireplaces for more than thirty years. Gallant has restored historic Rumfords throughout New England and creates modified Rumfords in contemporary homes.

“I’ve always built Rumford-style fireplaces,” says Gallant. “In my opinion, they are better looking than modern fireplaces, with their high openings,

angled jambs, and shallow fireboxes.” Rumford-style fireplaces, Gallant explains, follow the principles of a Rumford design, but have a slightly angled back and meet building code requirements for fireplace size and dimension.

According to Gallant, while modern Rumfords burn fuel efficiently, they are crafted now primarily for their beauty. Homeowners are looking for a fireplace that is both attractive, and burns a better flame, he adds.

“Although most people aren’t using fireplaces today as they did historically for heat, it still makes sense to build efficiently,” says Gallant. “An efficient fireplace produces a beautiful lapping flame without a lot of smoke, and nothing compares to the feeling of sitting around a roaring fire on a cold, winter’s night. A Rumford is both efficient and handsome, and furnishes a room with a certain, unique ambience.” ■

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