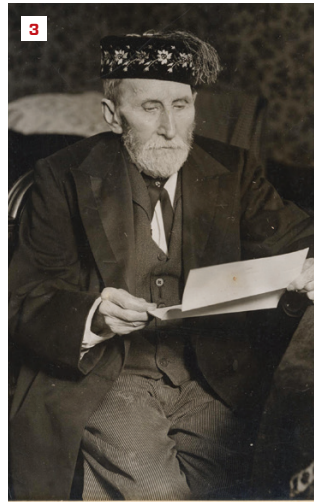
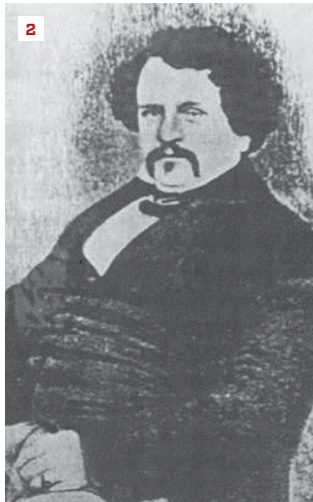
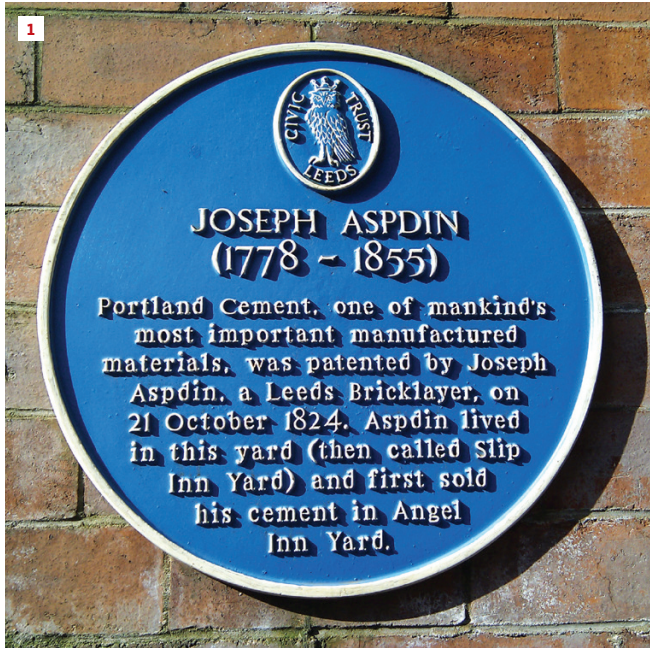


BY JLC STAFF



A plaque in Leeds, England, proclaims Joseph Aspdin as the father of Portland cement (1). But it appears to be Aspdin's son, William (2), who actually discovered the method for producing the material. Some years later, Isaac C. Johnson (3) independently rediscovered the secret. Late in life, Johnson wrote an autobiography claiming to be the "true" inventor of Portland cement.

Who Invented Cement?

A plaque in the English industrial city of Leeds proudly proclaims a son of the city, bricklayer Joseph Aspdin, as the inventor of Portland cement. Like much history, however, this claim is at best only partly true, says Robert Courland, the author of *Concrete Planet: The Strange and Fascinating Story of the World's Most Common Man-Made Material*. What is more likely, according to Courland, is that the secret of Portland cement as we now know it was stumbled on by Aspdin's son, William. In his book, Courland describes a cast of characters worthy of a Charles Dickens novel—and at the center of the plot is William Aspdin, a self-promoting swindler and con man who also happens to be the true father of Portland cement.

Joseph Aspdin did, as the plaque states, patent a material called Portland cement in 1824 (the cement being similar in color to Portland stone, popular in England at the time). But his lime-based mortar was not much harder or stronger than any other product of its day, though Aspdin worked mightily to improve the product, experimenting with various formulas and ways of producing the powder. (As a humble bricklayer, Aspdin had trouble procuring the rough limestone for his efforts—apparently even going as far as to pilfer stone from local roadways, a practice that twice got him fined by the authorities.)

Aspdin the elder would grind up the stone, mix it with water and clay, dry the mixture, kiln it until it was hard, and grind it up again to make his cement powder. Apparently, he discarded some of the product—the overbaked "clinkers"—because it was too hard to grind. It was William, the son, who seems to have had the bright idea of saving and grinding up the clinkers. And it was the clinkers that yielded the cement that actually rivaled Portland stone for hardness and durability.

William broke with his family in 1841 and moved to London, where he set up in the cement business on his own. Writes Courland, "William apparently kept the secret of the clinking process to himself, for there is no evidence that his father made clinkered cement after his son's departure to London."

Over the years, William would make a name for himself in a less fortunate way: as a serial embezzler, who pocketed everything from co-investors' cash to his employees' wages. His advertising claims for his cement—good as it was—amounted to creative fiction, according to Courland. But for many years, until a competitor named Isaac Johnson finally figured out how he was doing it, Aspdin's Portland cement dominated the industry. Still, his penchant for cheating his partners brought him to trouble. He ended his days, at the age of 49, alone and friendless in Europe.

Images courtesy: 1. Ben Dalton via Wiki; 2. "Concrete Planet," by R. Courland; 3. the10club.com