

CENTENARIES

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Neumann, Kaspar (1683-1737)

KASPAR NEUMANN, a celebrated German Chemist, was born at Zullichere, July 11, 1683. After receiving his education in his native country, he travelled in England, France, Holland and Italy and visited the famous chemists of his time. On his return in 1721, he was appointed Professor of Chemistry in the Royal College of Physics and Surgery at Berlin. He also became a Fellow of the Royal Society, London.

HIS PUBLICATIONS

In 1725, he sent his first paper to the *Philosophical transactions* under the title *On camphor*. In this paper, he showed that "camphor is a substance differing in its properties from oils, resins, volatile salts and gums; that is in fact a *sui generis* substance; and that it is obtainable from thyme and perhaps from some other vegetables, besides the so-called camphor-tree". He wrote several other papers, whose substance was all incorporated in a posthumous publication entitled *Chymia medica dogmatico-experimentalis*, etc., which was edited and published in four volumes by Ch. H. Kassel in 1749-55. An abridged English translation of this work was brought out by Lewis in one volume in 1760 and in two volumes in 1773. It was also translated into several other European languages.

BEGINNINGS OF BIOCHEMISTRY

A contemporary estimate of his work is that it exhibited "a better view than had before been given by any other writer, of all that was then known in chemistry. They, moreover, contain many new analyses made by the author himself of certain medicinal and alimentary substances; such as amber, opium, castor, tea, coffee, etc". He also examined the "acid juice of ants and showed (what has been confirmed by

subsequent experiments) that it coincides in its leading properties with the acetic acid".

Neumann died, October 20, 1737, at Berlin.

Woolf, Arthur (1766-1837)

ARTHUR WOOLF, mining engineer, was born at Camborne in Cornwall in November 1766. His father was a carpenter and he himself was apprenticed to a carpenter in his native place. But he soon migrated to London and by 1795 he became a master-engineer. In 1796 he went to assist Jonathan Hornblouer in repairing a two-cylinder engine at Meux's brewery. This led to his employment as the resident engineer of that brewery, where he remained till 1806.

WOOLF-ENGINES

He had already made small improvements in steam engines and took out some patents. In 1806 he became a partner with another engineer, who owned a steam-engine factory at Lambeth. In 1810 he took out the most important of his patents which related to the compound engine. Using steam of a fairly high pressure, and cutting off supply before the end of the stroke in the small cylinder, Woolf expanded the steam to several times its original volume. The compound engines which discharge steam directly from the high to the low pressure cylinders without the use of an intermediate receiver are called Woolf-engines.

Woolf introduced his engines widely as a pumping engine in the mines of Cornwall. They held the field for about twenty years and were then superseded by Trivithick's high-pressure single-cylinder engine, which was similar in construction.

Woolf died, October 26, 1837.