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# Bramah's press of 1795

*A patent, a collar, a lock in a shop window, and a death dated twice.*

The 1911 Encyclopaedia Britannica says that in 1795 Joseph Bramah invented the hydraulic press. The Institution of Mechanical Engineers dates the patent to the same year, and calls the press his most important invention. It had two cylinders and pistons of different areas. A force on the smaller piston was translated into a larger force on the larger one, in proportion to the areas.

| Official story | Wording kept on this sheet |
|---|---|
| **Birth** | Britannica, 1911: son of a farmer, born at Stainborough, Yorkshire, on 13 April 1748. IMechE: born in Yorkshire in 1748; "some accounts say 1749." |
| **The collar** | For the collar that secured water-tightness between the plunger and the cylinder, the 1911 Britannica says he was indebted to Henry Maudslay, one of his workmen. |
| **The Challenge Lock** | Finished in 1790, the IMechE says, with 200 guineas offered to anyone who could pick or open it. Alfred Charles Hobbs did so in 1851, during the Great Exhibition, in more than 50 hours across 16 days. The Science Museum lock has been rebuilt since. |
| **9 December 1814** | IMechE: he caught pneumonia in Holt Forest, Hampshire, and died there. 1911 Britannica: he died in London. The date agrees; the place does not. |

## Other official inventions, kept to the 1911 list

A water-closet patent in 1778; the lock known by his name in 1784; a numerical printing machine for the Bank of England in 1806; a suggestion, in 1785, of screw propulsion for ships; the hydraulic transmission of power in 1802; waterworks at Norwich in 1790 and 1793.

## A short quiz

1. In which year do both official accounts date Bramah's hydraulic press?
2. Who, according to the 1911 Britannica, made the watertight collar?
3. Do the IMechE and the 1911 Britannica agree on the place of Bramah's death?

**Answers.** 1. 1795. 2. Henry Maudslay, one of his workmen. 3. No. They agree on 9 December 1814, not on the place.

Wording from Karyn French, Institution of Mechanical Engineers, 28 December 2017, and from the 1911 Encyclopaedia Britannica article "Bramah, Joseph." Checked 17 November 2026. Free fact sheet from hydraulics.mechanics.im · ReallyByte — Fun. Educational. Useless. · reallybyte.com