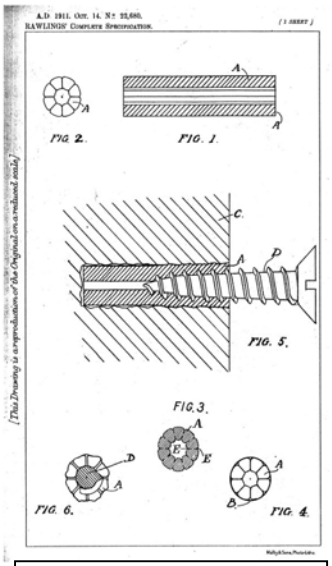
Get a grip! – the invention of the Rawlplug

In about 1887 Rawlings Brothers started out in London as a small firm of plumbers in Richmond Road, South Kensington. As the company grew, they broadened their services in response to the changing technological demands of the day. Electrical engineering was added in the early 1890s, and by 1910 the repertoire of Rawlings Brothers Ltd, now of Gloucester Road, included electrical, sanitary, motor car and general engineering, building and decorating.

It is said that about the same year, 1910, one of the brothers, John Joseph Rawlings, an engineer and building contractor, was engaged by the British Museum to attach electrical fittings to the walls of the museum, in an unobtrusive manner and without damaging the masonry.

Formerly, to fix anything to solid walls was a messy job, necessitating chiselling out a square hole in the plaster and masonry and filling it with a tight-fitting wooden plug of the same shape. The fitting was then secured by screwing or nailing it into the wooden bung. The result, however, was frequently unsightly because it was very easy to crack and damage the surrounding plaster walls. Even cylindrical wood plugs did not work well because wood was not soft or pliable enough to fill tightly the interstices or spaces between the hole in the wall and the screw or nail being driven in. John Rawlings believed there had to be a better, easier and neater way of fixing into walls. He solved the problem by inventing the rawlplug – a small fibre plug made of jute bonded with glue or animal blood. The jute tube was weakened along its length by being drawn from reels through a die. It was basically eight segments held together by a coating of gum or glue.

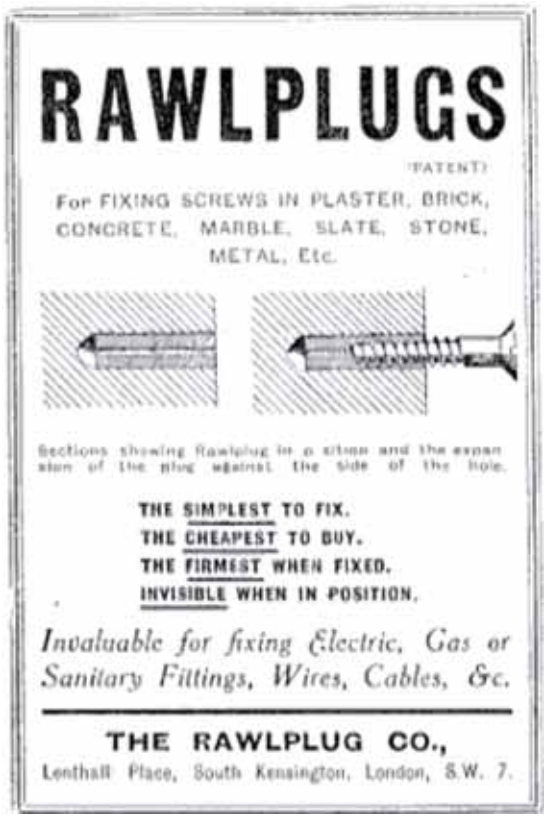


Rawlplug patent 1911

To use the rawlplug a neat hole of the same diameter as the plug was first drilled in the wall using a hand or power drill. The rawlplug was then popped into the hole and tapped home to be flush with the wall. The screw to hold the attachment was then inserted into the plug and driven home. The action of turning the screw made it cut into the rawlplug, squeezing it outwards to form a really tight fit against the masonry around the hole.

Rawlings' idea was that 'expansion means grip', because the plug was designed to fully fit the rough outline of the hole not occupied by the screw. His idea worked and he filed a patent for the plug in 1911 (22680/11), which was

granted on 14th January 1913. The Rawlplug trade mark was registered in 1912. The patent should have run its full term of 14 years (to 1927) but was allowed an extra four years of protection (to 1931), probably to compensate for the interruption of World War I.



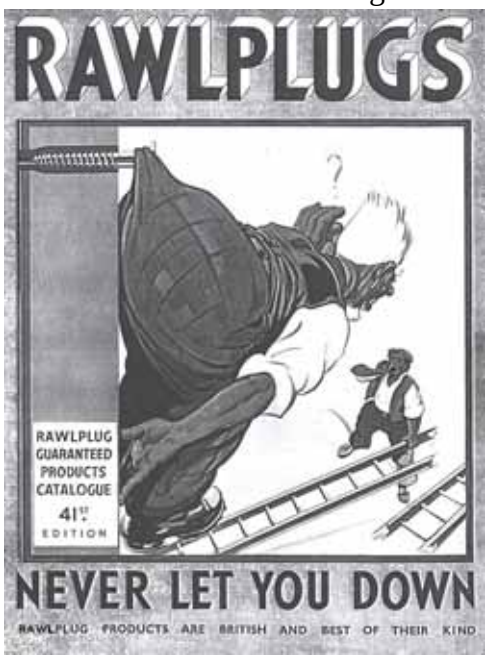
Early trade advertisement 1919

In 1919 Rawlings Brothers changed the Rawlplug branch of the company to The Rawlplug Company Ltd., operating from Gloucester House in the Cromwell Road and a factory works in Lenthall Place. Gloucester House was renamed Rawlplug House around 1925 and remained so until c.1965. Much of the early success (1922-1945) was attributed to massive advertising campaigns, including whole page advertisements in national newspapers, and wide exposure at Exhibitions every year in different parts of the world. The Rawlplug was promoted as an absolutely firm fixing :

A medium-sized Rawlplug fixed in brick will hold half a ton. It cannot work loose or shrink. The largest Rawlplugs, for use with coach screws will hold up to four tons.

[Rawlplugs products promotional brochure, 1935]

Rawlplug and the company's associated products quickly became a global success story. A later development was the now familiar Rawlbolt, intended for heavy duty anchorage in concrete or masonry. Patented in 1934 (GB 444623) the Rawlbolt consisted of a tubular metal shell divided lengthways into four segments which pressed outwards as the bolt was tightened.



Catalogue cover c1935

But it is for the humble yet ubiquitous Rawlplug that the company founded by John Rawlings is remembered. By the 1950s millions of the little plugs were being used every year in countries around the world. The prosperity of the mid-1960s ushered in a period of expansion for the company marked by numerous relocations around the country, as well as product changes brought about by the inevitable march of plastics. In 1967 the convenient yet dull-looking dark brown jute plug was joined alongside by a more sophisticated and colourful alternative in the first Rawlplugs made from extruded plastic. These were not dissimilar to today's ranges, typically having a slit end in order to easily deform outwards, four slits at the base, and three

little teeth to provide grip on each side near the end.

In 1968 Rawlplug head office was at Kingston upon Thames, Surrey. In 1970 they were in Hale Lane NW7, with Brent Works in Colindale NW9. Between 1975 and c.1985 Humber Lane Works in NW2. In 1988 the company was back in Kingston upon Thames in London Road. In 1999 Rawlplug was based at the Thornlibank Industrial Estate in Glasgow, where it is today (2004). In 2001 the BPB Group (originally British Plaster Board) acquired Rawlplug and merged it with its Artex-Bluehawk decorative products operation, forming Artex-Rawlplug. In doing so BPB acquired a leading manufacturer of anchoring and fixing systems used in the building trade, retail DIY and industrial markets, employing more than 250 people and achieving sales of £31 million in December 2000.

Rawlplugs 'Popular Outfit' c.1950	4 in 1 Rawldrill Outfit c.1950