

Winchester bottles

The large (2.5 dm^3) bottles used in chemistry laboratories to store liquids such as solvents and large quantities of standard solutions are almost universally known as Winchester bottles, or just Winchesters. But why? No one seems to know for certain but it seems likely that this name goes back to Anglo-Saxon times (around 1000 years ago) and something called Winchester measures. At the time, Winchester was an important town both for government and trade.

During the reign of the Saxon King Edgar the Peaceful (AD 959 to AD 975), there was an attempt to standardize measurements and it was decided that all measures must agree with a set of standards kept in Winchester and in London. Hence units used at that time such as the bushel, peck and gallon became known as 'Winchester measure'.

One measure, the Winchester quart, was used to denote half a gallon (2.273 dm^3) and it is possible that the Winchester bottle (2.5 dm^3) is derived from a metrication and rounding off of this.

Today, some measurements are still defined by relating them to a physical standard. The standard kilogram, for example, is a cylinder of platinum-iridium alloy kept at Sèvres in France and other countries hold copies of this – the UK's copy is kept at the National Physical Laboratory in Teddington, London. Most other base units are defined by reference to physical phenomena. For example the metre is defined as the distance travelled by light in $1/299\,792\,458$ of a second and the second is defined as the duration of $9\,192\,631\,770$ periods of the radiation from an electron transition between two specified energy levels in the spectrum of caesium.

Going back to the Winchester bottle, the name does not seem to be used in the USA. One chemist, Mike Thompson, coincidentally a teacher at Winchester College, was working in Arizona and asked for a Winchester only to find that his colleagues thought he wanted a shotgun! Could this be an example of the saying about the UK and the USA 'two countries divided by a common language'?