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London and provincial flagons

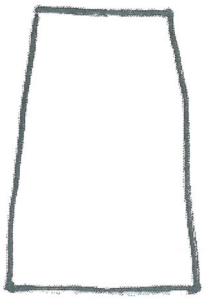
Some notes, suggestions and illustrations of a talk given at the Pewter Society meeting in Cheltenham.
October, 1999, Jan Gadd

The following two pages illustrate an attempted analysis of construction methods of 17th (or earlier?) and 18th century flagons.

Construction method of 17th C flagons (until c. 1690).

The waists on these lids were turned in the lathe as it would otherwise be impossible to release the sections of the mould. The inside usually shows a vertical/positive lid-side for the same reason. Some lids had positioning-flanges! (The "muffin" lid not illustrated.)

These "funnels" were turned top and bottom to fit lid and barrel - always a perfect match, of course!



This is the "loud-hailer" section which could have been cast with a "trimming-option" of an inch or more, both top and bottom. The lower part of the "funnel" section would then have been cut to match a lower and wider (cut)"loud-hailer"-section if required which would account for the varying height of funnel-sections on surviving examples. (The steep angle of the body of early holloware accounted for the decrease in diameter of only 1.5 - 2.5 mm with an additional height of 1 " - very deceptive!)
The bowl-section below could likewise be cut down to match a "less-than-maximum width" (cut) lower part of the "loud-hailer" cast, producing a flagon of still lower height With the top-and-bottom adjusting possibilities this construction allows, the basic moulds would be able to produce flagons with variations in height of up to 3 to 4 inches. This is very good, early engineering!
Look inside for signs of cooling bag marks at the attachment points of the handle!

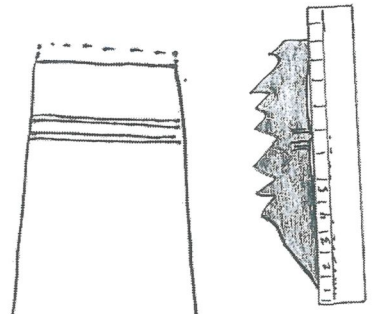
The cutting-down options are explained above. The dots indicate where the footring "skirt" was soldered on. It is entirely possible that a larger and similar "skirted" footring was soldered on at a somewhat higher point on optimum-height flagons. *A survey of these older flagons would easily reveal if such an option available to the earlier pewterers was actually used.* Charles II flagons often have skirt-style bases with much wider and more graceful concave/convex footrings than the *earlier*, (read: other?) purely convex footrings, although the manufacturing technique was the same.

Construction method of flagons and tankards from c. 1680/90

(The actual types of components illustrated here should be ignored as the construction method applies to most other types - notable exceptions are versions of the Beefeater flagon with internal volume footring rather than external volume footring as shown here.)

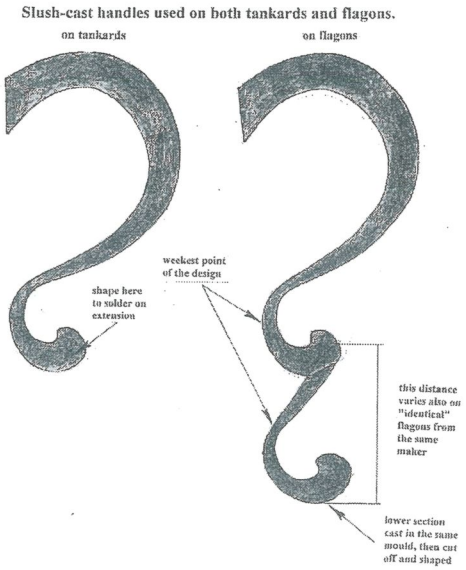
These lids were mostly flat, later domed and had positioning flanges which often were removed at a later stage (such as when rim looses its perfect roundness).

This lip-ring was cast and trimmed to fit flanges of both tankard and flagon lids exactly. The lower part was wide enough to fit various diameter flagons within a close but useful tolerance range and was soldered on top of the barrel and then turned.



The barrels were cast with a slight option for the pewterer as to height tolerances. The fillets were not included in these moulds during the 18th Century, but turned in the lathe. This is quite clear from measuring the distance from fillets to top of barrel on "identical" examples. Such fillets if in the mould would have had to be engraved on the inside of the mould mantels - difficult in those days! A short ruler presented vertically to the barrel will show how the turning was done.
Several examined flagons of this period show a clear soldering line (at varying height), visible only on the inside of the barrel, probably not visible here when the flagon was new. This illustrates the soldering skills at the time and the economy of marrying two failed casts.

Bases now incorporated in the footring mould to form "external volume". The seats for the barrels are sufficiently wide to allow for some variation in barrel height.
The London pewterers often used "double bottoms" on their Spire flagons during the industrial era with a possible start from c. 1800. The wall thickness during this period was c. .5 mm less than during the 18th Century and the double bottoms might be a strengthening device?



A third construction method

This method was used in most European countries. (The first two described above were probably "unique" to the English [rather than British] pewtering industry.)

The shape of the barrel *and* the foot were incorporated in a single plug-core mould as can be seen from the photograph. Bottoms of such flagons/tankards are soldered in place. Such soldering was a weak feature compared to the other two methods. A flagon or tankard of a high lead alloy made like this would, however, take rough handling better than a low lead one which may be the reason why most London flagon/tankard makers opted for the method of incorporating the bottom in the base-mould, especially after the arrival of the hard metal pewter in flagons and tankards?

Some provincial pewterers used available moulds (or no moulds at all), bought-in parts such as lids, handles and thumbpieces, or second hand parts, perhaps provided by the local vicar from damaged pieces etc. Such efforts are forever doomed to confuse and sometimes excite the collector.

The "bits-assembly" method was also used by the fakers. This was relatively easy as such parts were readily available during the first half of this century to the person with some pewtering skills.

Received knowledge

According to Michaelis (1969):

> From about 1603, when the Canons ordered that the sacramental wine "should be brought to the table in a sweet, standing pot or stoup of pewter, if not of purer metal", there are many very fine examples extant; some still in the hands of churchwardens of the respective parishes, and many more in private ownership.
>
> The flagon of *c.* 1603–15 was a fine, sturdy vessel with plain

According to Peel (1971):

> *Part I. 1600–60*
>
> Specimens prior to 1660 are still very rare, with the exception of a newcomer series—church flagons. The Church had been despoiled—particularly of the silver plate—and thus impoverished it was allowed in 1603 to use pewter for flagons, for bringing the wine to the table. So starts a really fine series of the most dignified

According to "Pewter - A celebration of the craft 1200-1700" (1989):

> Flagons of this form were almost certainly in use domestically prior to 1600 and it was this form which was immediately adopted throughout England after the Church in 1603 allowed the use of pewter at the communion. Examples with churchwarden's initials or other inscriptions can be presumed to be ecclesiastical, but other plain flagons may well have been used in the home. This is the largest recorded James I flagon.

Somebody involved in pewter research found a 1603 document somewhere where some cannons suggested where in the church (at the table) the communion vessels may be put. Different and erroneous interpretations of this (possibly local/regional?) document is the reason for the close-dating of the earlier flagons ("James I") when in fact they may have been in both domestic and church use much earlier. (I was informed some 25 years ago that "an act of Parliament of 1603 for the first time allowed the use of communion vessels of other metals than gold and silver which I believed for many years.)

A group of older style flagons

No. 3 from left by the prolific maker EG

The large Werrington flagon dated 1609.

Some later 17th styles - the Beefeater

Beefeaters - John Emes, London left and "T. Lupton" late 17th C.

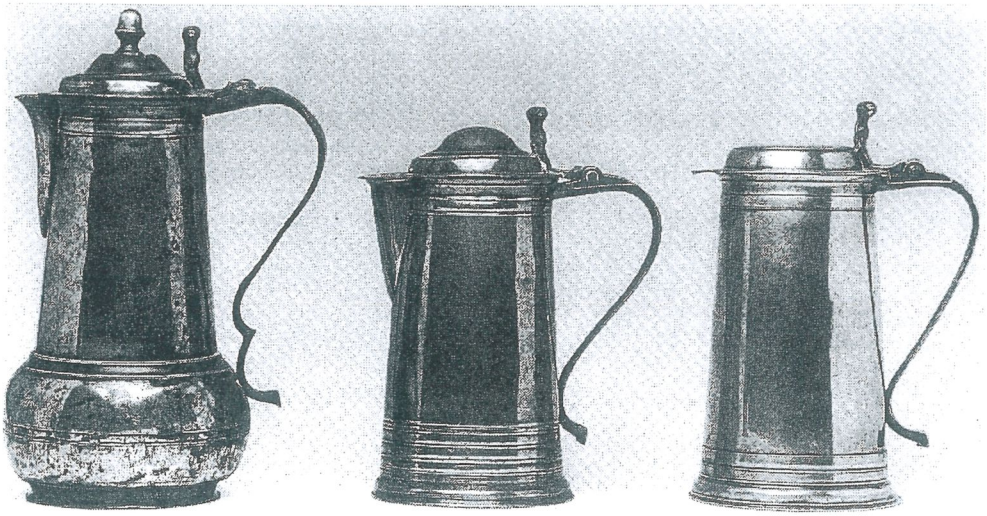
One of a pair of Beefeaters by Samuel Billings, Coventry, mentioned in parish accounts for 1685, ex Holt coll.

The Dublin Beefeater

The earlier type on the left c. 1730 and the other c. 1770 and later.

The York styles

Straight-sided by I.W. and acorn type by John Harrison, York, both first half 18th century.



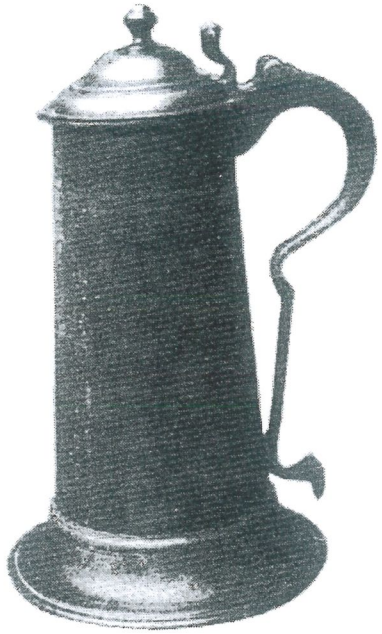
Three York flagons from the Holt collection. Left with broken handle and church-date 1765 (lower section of base may be missing?), spouted with unrecorded maker's mark, right by Leonard Terry, York, c. 1720.

York acorn flagon in Hornsby's PWW

The "Spire" Flagon style (sometimes without a "spire" = lid finial)

COMMUNION FLAGON, E
XVII century.

The left flagon is ill. in OP and the other one in Bell. Both show the "funnel" arrangement at the top of the barrel, both c. 33 cm tall. It has been suggested that the maker is George Kent of Lincoln and the date c. 1675. It is not clear, however, if the bottom was incorporated in the base-mould?



The flagon on the left (sir John Fryer) is dated 1717 (from PSJ A-95) and the other 1706 (from PSJ S-79), both showing London/Newham characteristics.

Two flagons by William Newham in the Haddam Church, Connecticut, both marked W.N. on handle. Approx. height 35 cm. Damaged photograph from the Cotterell papers at Pewterers' Hall.

A "matching" pair by William Charlesley, London, c. 1740. Note variations to lower section of handle, level of turned fillets and lid finials.

Another "matching" pair by Richard Pitts, London, c. 1760, showing similar variations as the Charlesley pair above.

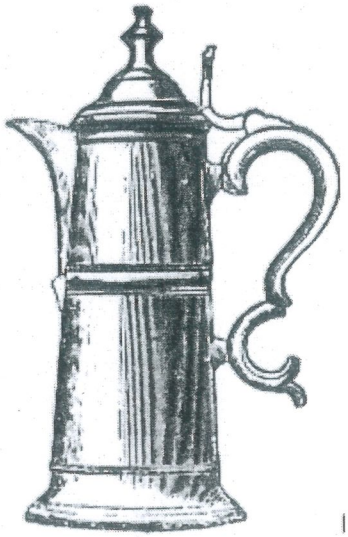
Tall flagon by Munden & Grove, London, c. 1770. Note the handle arrangement combining a slush cast upper part with a solid cast lower section - exactly the same method was used by the Newham brothers more than 50 years earlier. See also the Fryer flagon above.
To the right is a spouted flagon by Thomas Carpenter.

Some later spire flagons

A construction method/design/style that is in continuos production for over 200 years has much to be said for it!

Cotterell, Peel and other writers point at a "gradual degeneration" of the flagon styles towards the end of the 18th century. They were heavily engaged in tracing and illustrating an "evolution" of the flagon based almost solely on stylistic observations and lots of "transitional", visual features were illustrated. Questions like where, when, how and by what class of craftsman were not always asked and explained. An example of where the over-use of stylistic observations can lead is illustrated overleaf from a page in Peals "Pewter of Great Britain". At least two of the illustrations here "c. 1710-35" are instead provincial pewterers' interpretation of the London style and of the period rather than "developing on towards".

The 19th century London flagons were invariably spouted, often with a decorative ridge underneath. The thumbpieces are open and the finial heavier. A new sturdy handle was introduced, attached on heavy struts. Many examined flagons have a double bottom, probably in order to strengthen the footring.



Top left by James Stanton, London, engraved 1837, height 34cm (Stanton died in 1835).

A similar 38cm unmarked flagon (Bonner coll.) is engraved "Independent Church, Littledean, Glos. 1841". Four plates by Compton have the same inscription.

The drawing is copied from Engelfields 1902 pattern book and was made by them until the 1930s.

74 Examples of the early dome-lid flagons developing on towards the beautiful spire style, *c.*1710–35. (C. C. Minchin, and Holt Collection)

Some weights and volumes.

Three West Country flagons (Nos. 1-3) were measured and are compared with the London spire flagons of the 18th Century and some earlier types. A white wine flagon from Rothenburg ob der Taube was also measured to provide a comparison. This flagon is out of the same moulds as the German flagons the American pewterer Heyne copied for churches in Pennsylvania. The idea here is to demonstrate the "generosity" of metal in the casting/turning and *it is important only to compare flagons of similar capacity.*

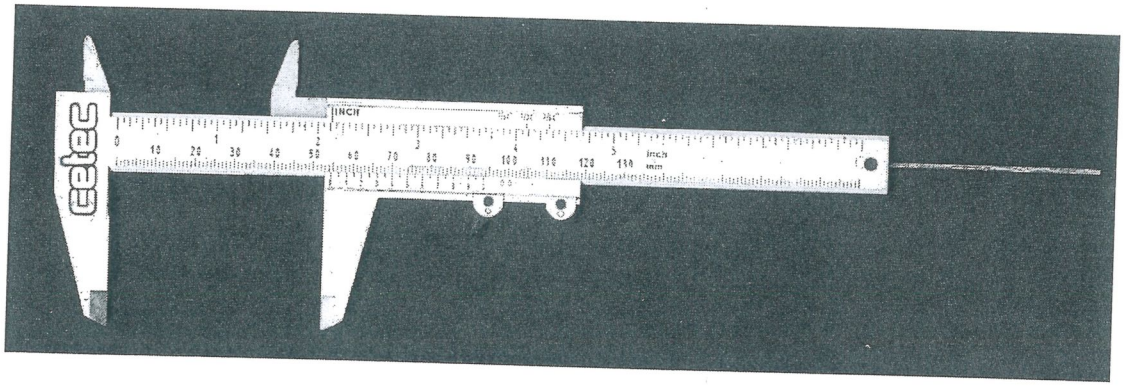
Flagon number	Flagon	Height to rim	Weight gram		Vol. cc (ml)		Vol. weight g/litre	
1	Milton Abbot	278	2480		2600		954	
2	Chawleigh	272	2290		2045		1120	
3	Sandy Law	230	1620		1290		1256	
4	Richard Pitts I	218	1515		1655		915	
5	Richard Pitts II	221	1660		1750		949	
6	Charlesley I	238	1865		1580		1180	
7	Charlesley II	242	1605		1565		1026	
8	Carpenter I	266	2000		1950		1026	
9	Carpenter II	267	2060		1925		1070	
10	London I - c.1800	232	1350		1135		1089	
11	London II - 1832	274	1740		2000		870	
12	Munden & Grove	323	2760		2360		1169	
13	Robert Isles	189	860		990		869	
14	John Newham	309	3110		4170		746	
15	Ingram & Hunt	300	1760		2160		815	
16	James I	234	1680		1320		1273	
17	Charles I	264	1930		2420		798	
18	John Dolbeare	217	1460		1090		1339	
19	Irish (Heaney?)	235	2115		1785		1185	
20	Rothenburg	240	1150		1340		858	

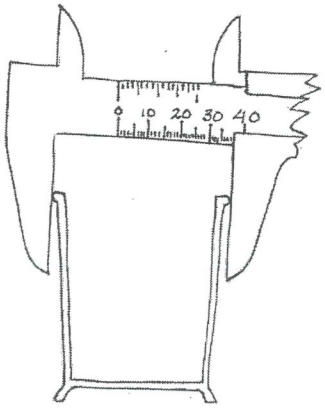
The flagons were weighed empty and then full of water and the difference in weight is also the difference in volume. (1 g of water = 1cc of water)

The West Country pewterer allowed 46% more metal per litre (the Law flagon) than did the German pewterer. Only the extremely heavy James I flagon allowed marginally more metal for this volume. It can be noted that Ingram & Hunt were decidedly mean with the metal they allowed! Another conclusion that can be drawn from the table is that Carpenter and Charlesley achieved a remarkable precision and volume-consistency between similar flagons. The difference in volume between compared flagons is the same or less than an optics' measure of whisky (2½ cl).

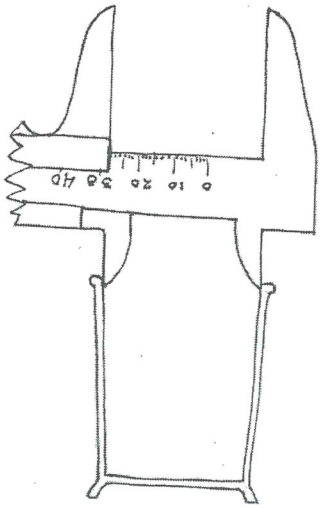
Measuring callipers

Ideal for use as below up to c. 135 mm (c. 5½") and will show tenths of millimetres.

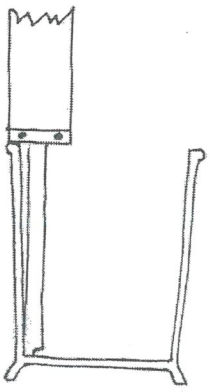




External measuring

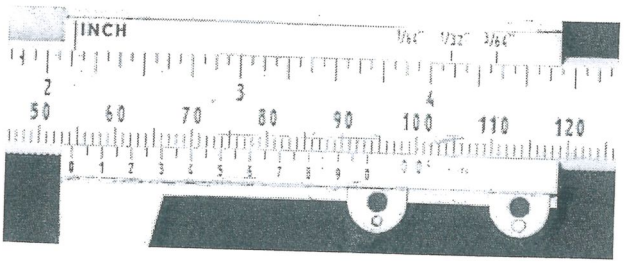


Internal measuring



Use as a depth gauge

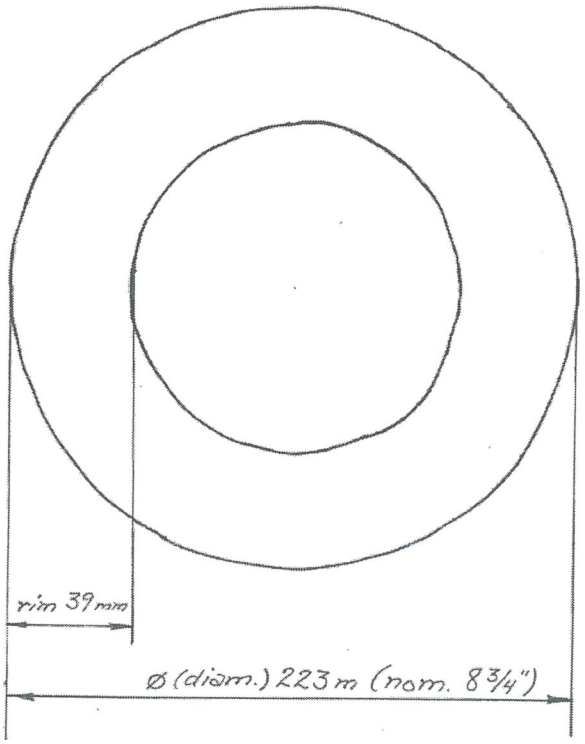
All above measures are read exactly the same as follows:



The "0" in the lower scale (vernier/nonius) points at the measure in millimetres, here just over 54 mm. The decimal point is found where *any one* of the ten decimal lines on this lower scale joins *any one* line on the scale above to form an unbroken line and the reading here is .4 mm giving the measurement here as 54.4 mm. (.3 is clearly past the line above and .5 has clearly not reached the line above.) Note that actual readings from the upper scale should only be taken from the 0-point as explained above.

Plate and dish sizes

It is only possible to answer questions like
+ how many sadware sizes did one particular pewterer have on offer,
+ did pewterer X use pewterer Y's mould for his 22" chargers
+ did Compton use a 100 year old mould for his "9½ inch" triple reeded plates
by measuring closely in millimetres. Nominal sizes such as "9¾, 10"" etc. will not answer such questions.



To determine if a plate/dish could be classified as broadrimmed, a quick way to work out how the rim (on "both" sides) relates to the total diameter is shown here, using the above measurements:

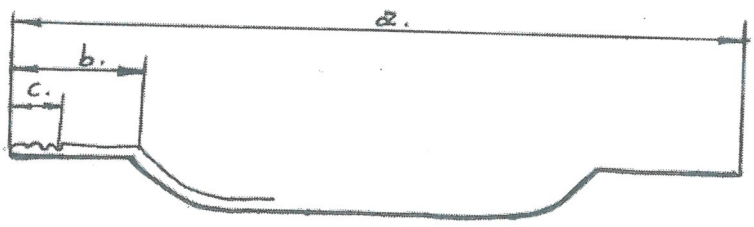
$$\frac{\text{rim x 2}}{\text{diameter}}$$

39 x 2 divided by 223 = .35 (or 35 hundredth or 35%)

An ongoing study into the "oeuvre" of some Worcester pewterers is shown overleaf.

Sadware range of Greenbanck and Trapp of Worcester (Sampson Bourne II added)

Table started in January, 1999, revised 18.02.99,



c. = distance from edge of plate to bottom of last reed in mould (exclude turned reeding).

Nom. size	Width a. mm	Rim b. mm	Reed c. mm	HMs by	Comments/collection
8¾"	225			IG	Hall
8¾"	225	28	9	? SB II?	Homer (HMs = 4 lions)
14"	353			IG	Hall
15"	383			IG	Hall
15"	382	53	14	IG	Gadd
15"	380	52	17	IT	Keil
16½"	422	56	16	IG	Moulson
16½"	422	56	16	IG	Homer
16½"	421	71	(14 turned)	SBII	Fleece
18"	460	62	16	IG	Fleece
18¼"	463	61	20	IT	Gadd
20"	511			IG	Hall
20"	510	69	19		Richardson
20"	511	2x82=32%	broadrim	SBII	Keil
22"	560	82	27	IG	Gadd
22"	560	83	29	IG	Fleece
22"	560	79	20	IT	Fleece

Some essential measures and a method of dry-measuring volume of truncated cones

It is always nice to have some measurements given in illustrations of articles. Too many would rather spoil the fun, but the below mentioned would enable a reader to roughly identify a vessel or plate/dish.

On holloware:

Height to rim
Base diameter
Rim diameter (external)
Volume
(Height overall is less "secure")

On sadware:

Diameter
Width of rim
(Weight)

If the rim or base is "irregular", three measurements across at different points could be added together and then divided by three.

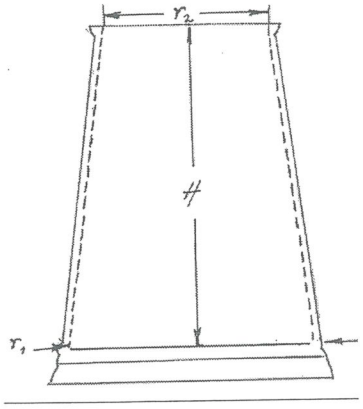
It is not always possible to use water to measure volumes of vessels in churches, museums etc. Some truncated cones could be measured as below using a formula. The length (circumference) in cm of the cotton string gives the *lower radius* as follows:

$$\frac{\text{circumference}}{6.28} = \text{radius}$$

This radius will have to be reduced by the (single) wall thickness of the vessel, if not measured, perhaps as follows: 17th C vessels = 2.5 - 3mm, 18th C = 1.5 - 2.5mm, 19th C = 0.8 - 1.3mm.

$$(r1^2 + r2^2 + r1xr2) \times \frac{3.14xH}{3} = \text{the volume}$$

If all measurements are put in as centimetres with decimals, the result will be given in cm^3 (c.c.); example (from a Yates Imp. quart) r1 = 5.27cm (5.4cm minus wall thickness 0.13cm), r2 = 4.58cm, H = 14.5cm. Put in the formula it reads 1108.7cc compared to the true quart, c. 1136.5cc = 2.4% short of true, but the old water test revealed the actual capacity as 1138 - still a good result!



Use cotton string to measure circumference here