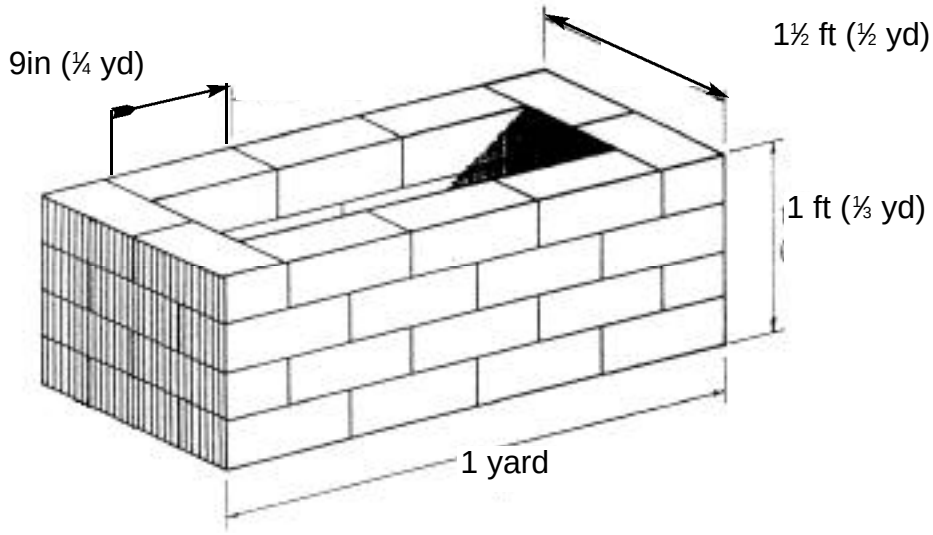
BRICKBATS…

Don Hammond

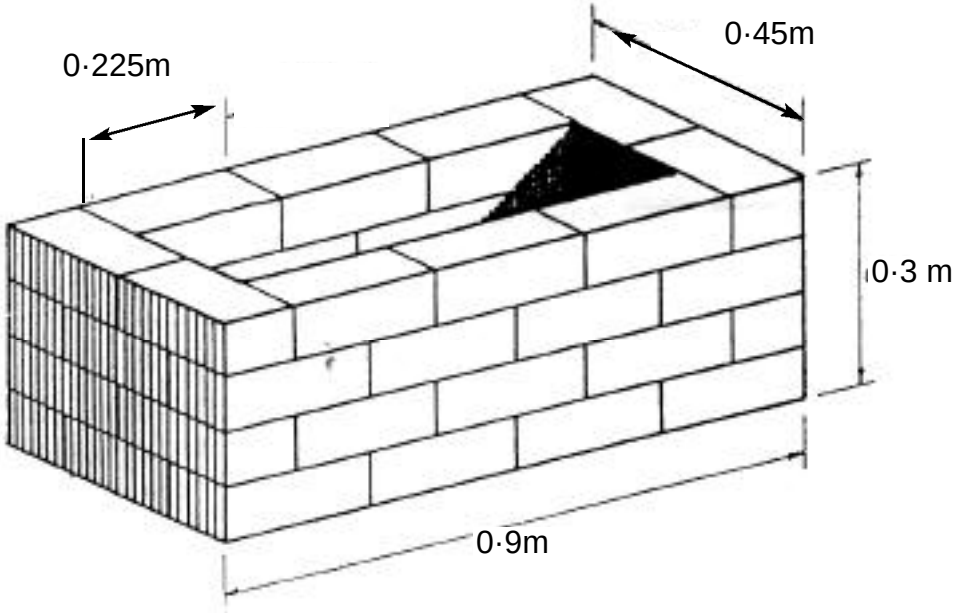
The house brick has been mentioned before in the DOZENAL JOURNAL (see No. 3), but deserves a closer look; embodying as it does a solid, three-dimensional actuality, this humble yet essential artifact illustrates to perfection the need for Rational measure.

The Imperial Standard brick is based on theYARD. Its effective size, which includes the mortar joints when laid, gives dimensions of length, width and height as one-quarter, one-eighth and one-twelfth of a yard respectively.

The following figure shows a modest brick structure in stretcherbond, using Imperial bricks. Note how simple fractions of a yard are obtained at every stage in three dimensions. The fractions can also be expressed easily in **feet**, particularly the height, which is readily estimated on site at four courses to the foot. A builder who is told that a wall rises *n* feet from the DPC knows that 4*n* courses of bricks will be needed; a similar simplicity obtaining for horizontal dimensions gives a whole number of yards or feet for every four bricks in stretcher bond.



A glance at the next figure, which is the same structure made from 'metric'bricks reveals that these **will not fit a metre**, either lengthwise or coursewise.



The desirable ratio - in lowest terms - of brick dimensions is 6 : 3 : 2,.and this ratio cannot be obtained with metric units (try it!); the pathetic result, therefore, of the so-called 'metrication' process in the building industry, which was undertaken for political, not ergonomic, reasons has

been the invention of the 'metric inch'of 25mm, the 'metric foot'of 300mm and the 'metric yard' of 900mm (not that anyone is officially allowed to say so). The 'metric standard'brick, laid in mortar, is thus given dimensions of: thickness 75mm (3 metric inches), width 112·5am (4½ metric inches) and length 225mm (9 metric inches); thus sized, these bricks can be laid four courses to a metric foot and four lengths to a metric yard.

Hence, the price paid for 'metricating'the housebrick is abandonment of the metre itself: the primary unit, the Emperor of the metric system in his grand decimal raiment, has arrived at the builder's Yard and tripped over a brick.....

(No; this is not just a British reaction: the French themselves do not use the metre as a building module.)

This 'metric' brick is very close in actual size to the Imperial. It is a little smaller (⅛" shorter) and will lay to the yard and foot; so if you want to lay bricks stay with your folding yard and avoid wasting money on a folding metre that will not fit the work. (What a spiteful little change this is!).

Again we see that the criterion for efficient measuring units is the ready accommodation of **ratios** suitable for the work. The fabric of reality is tough and trying to cut patterns in it with blunt decimal tools is a self-defeating exercise.

Metric measures are some ten per cent greater than our human-orientated ones. There is a ring of truth in an anecdote that French surveyors would count out a hundred paces, and, with a Gallic shrug, write down ninety metres.

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