



*The Calf: Only a shoemaker knew what his size stick said.*

CREDIT: NORTHAMPTON MUSEUM & GALLERIES

# A STICK AND AN ODD NUMBER

Shoemakers have used a size stick in one form or another to measure customers' feet since the days of the Pharaohs. The Greeks adopted the idea and the Romans copied from them. They have not always been very accurate however and have also helped to contribute to one of the footwear industry's eternal mysteries, the size 13.

The problem started early on as every shoemaker had his own size stick marked with his own personal sizing system. And, because shoemakers have traditionally always thought they knew better than the next man, they all kept to their own secret system. No serious attempt was made at uniformity until the Middle Ages when the English standardised an inch as being the length of three barleycorns, a measurement known since Saxon times. The increment between shoe sizes gradually came to be accepted as one barleycorn or a third of an inch and there it has stayed as far as UK and US shoemakers are concerned.

## DIFFERENCES IN SIZING

One of the benefits of the modern age has been a rationalisation of many of the systems of measurement we use, the most obvious being the adoption of the metric system which has made the exchange and understanding of data so much easier across the world. There are exceptions of course and shoe sizing is a notable example with its fundamental difference between the essentially metric Continental or Paris Points system and the UK and US ones

that use Imperial increments. An article by American last expert Bill Tippet in the May/June 2007 issue of *World Footwear* gave this a good airing and pointed out the problems that often result.

A further oddity that seems to lack either rhyme or reason is the break in children's sizing that occurs in both UK and US sizing. In the UK, sizes start at 1, break at 13, start again at 1 and then run up to 13-plus depending on shoe, gender and manufacturer. In the USA, things are complicated further by the ladies' scale being one size smaller than men's throughout both ranges. Continental sizes, on the other hand, start at 14 and run through without a break and regardless of gender. So, why did English shoemakers adopt the oddity of a size break and at size 13 of all places?

## BODY MEASUREMENTS

Various theories have been put forward over the years but the one that seems most likely was the result of a simple system of measurement based on parts of the body. Besides being three barleycorns in length, an inch was also the width of the middle of the thumb. A foot was the approximate average length of an adult male foot as people and feet were smaller than now. A hand—still frequently used to measure horses—was the width of the hand at the four knuckles (four inches) and a span the distance between the tips of thumb and little finger with the hand at full stretch (nine inches). Very

“...and it should be noted...”

The Continental system was first devised by a French priest, Fr. Gabriel Mouton, in 1670. It was both logical and simple, and various improved versions appeared during the following century until, in 1801, Napoleon Bonaparte formalised its use throughout French-controlled Europe. There was no size break between children and adults then and there is none today. No doubt if the Emperor had managed to successfully invade Great Britain, British shoemakers would have had to adopt the Continental system and today's global shoe sizing might have been a good deal simpler for all concerned.



*Traditional size sticks.* CREDIT: NORTHAMPTON MUSEUM & GALLERIES

simple and you didn't need a ruler for everyday measurements.

A child was considered to need its first shoes—assuming its parents could afford them—once its feet had reached a hand's width in length, so size 1 was generally four inches in length (Continental size 14 is approximately 3.75 inches). As always, a few disagreed, said it should be five inches and, being typically awkward shoemakers, adopted that as their size 1. The majority however kept to four inches.

Life expectancy then was short and adulthood was considered to begin at 13 by which time all boys were expected to be at work and girls ready to marry. The average length of the foot at this age was about a span or nine inches, so shoemakers added a hand and a span to make 13 the natural end of childhood sizing and the start of adults—for women in particular—beginning once more at size 1. It also kept size

numbers easier to understand for a largely illiterate population. The early American colonists took it with them, which is why the USA also still follows this peculiar size break.

### SIZE STICKS WERE NOT HELPFUL

The size sticks referred to earlier were to some extent also involved. Most shoemakers interpreted size 13 as being 39 barleycorns or 13 inches, despite the fact we have already seen that the average person's foot length at age 13 was more likely to be a span or nine inches. Some individuality in marking the sticks continued however and, while a majority of them interpreted size 13 as being 13 inches, others might show anything between 11 and 14 inches for the same size.

Size sticks were therefore really no more accurate nor reliable than they had been centuries before and the only reason they stayed in use for so long was that nobody came up with anything better until comparatively recently. It did not really matter when you went to the same shoemaker all the time. The problems really arose with mass production and the development of half sizes in the UK and USA. The continental system was simpler in that it did not normally recognise half sizes as the difference between full sizes was that bit closer than with the Imperial system.

Size sticks were in widespread use throughout the last century as can be seen in the 1805 cartoon by A Mills shown at the beginning of this article but, given the differences that continued to exist between manufacturers who offered a 'generous fitting shoe' and those who erred on the small size, they were only ever a rough indicator and when buying shoes it was best to have them fitted by a fully trained salesperson. Despite all the advanced foot measuring devices that are now available, this advice still applies, especially with children whose feet can be permanently damaged by shoes that are too tight—perhaps a size 1 rather than a size 13? 