

Comptometers – when my number was up.

I found my job as a comptometer operator had virtually disappeared when I tried to return to work after a break to raise my children. What's a comptometer?' people ask. Chamber's Dictionary defines it as a machine that adds, subtracts, multiplies and divides, but fails to mention that it uses a human brain to perform these functions.

Basically the machine was a bank of numbered keys set in a square with the same digit across each row and eight vertical columns rising from one to nine. On the models used in Britain two extra columns on the right hand side worked to base twelve for shillings and pence with a key between them and the main section to register ten shillings for British Sterling calculations.

The manual machines had keys about 4" high which needed to be depressed about 2" to release cogwheels inside the machine that registered the amount. The sheer physical effort of pushing down the keys all day was tiring, especially if your employer did not provide a desk with a well for the machine. Repetitive strain injury flourished with necks and arms giving way under the effort. When electric machines were introduced in the nineteen fifties operators thought heaven had arrived because they were so light to touch.

The training school for would be operators was in London's Aldwych where five flights of stairs led to a lofty eyrie in a massive stone building. About seventy trainees wearing dark skirts and white blouses sat in neat rows schoolgirl fashion.

The first lesson was adding without looking at the keys. This was achieved by alternate flat and concave keys so by placing the first two fingers of the right hand on the bottom row you knew you were touching 11. The instructions were to use only the first five rows, pressing 3 twice for 6 and 3 and 4 for 7, and in the case of 11 pence you had to feel your way up to the 6. It was extremely slow at the beginning and needed tedious hours of practise. For large figures, you simply moved to the left adding two columns at a time. All this was done with a pencil tucked under the thumb to write down the answers which registered in a row of windows along the bottom of the keyboard

Multiplication was carried out by placing the fingers on the keys of a number and pressing them down the number of units in the multiplier. Then moving all the fingers one column to the left and pressing down the number of tens in the multiplier. For example for 34 x 57 you held 34 pressed it 7 times then moved to the left and pressed it 5 times. This was easy enough when working to base ten even with large numbers. The nightmare came when working to a different base which meant converting everything into decimals of ten. Twelve was the base for money. Lunch hours were spent crowded into one the newly opened coffee bars chanting pence as a decimal of a shilling over cups of frothy coffee. What is so difficult about that you might think? The pence were divided into halfpennies and farthings

but once you realised there was a pattern to them you could work them out. Then you had to learn the shillings and pence as decimals of a pound. All the while you were working you were reading one number and thinking of it as another. 17 shillings and 6 pence will be forever engraved on my brain as £0.85.

Long division remained a slow process and was usually done by the reciprocal method. This involved dividing the divisor into one and multiplying by the result.

Various trades worked to different arithmetical bases. Stocktaking for a large company might involve working out 2 gross, one dozen and five singles at $\frac{3}{4}$ a dozen. You either worked in dozens or used 144 times table.

Timber was a trade that used odd measurements. I vaguely recall a square being one of them. Metrication simplified it but we've all been subjected to 'wood's all metric now, how many feet do you want?' in D-I-Y stores.

Payroll work for hourly staff was repetitive. They were paid a week in arrears because hours, basic rate, overtime, bonuses, and deductions all had to be calculated and checked. Many operators accompanied auditors as they went round different companies. They would get entire books to check through ranging across many types of work.

Decimalisation made life a lot simpler with most financial calculations reduced to base ten.

Some trainees were sponsored by their employers and went for three weeks to learn a particular type of calculations such as wages or timber. Others paid their own fees - £75 in 1954 – and went for three months to work their way through every type of calculations that occur in business. But we all had to endure adding up for two hours a day to get our speed up.

The demand for operators peaked around 1960 when they were among the best paid office staff rivalling top secretaries. The demise began with the introduction of desk top calculators and computers. Life became much easier and specialist operators were no longer needed. The training school closed down about 1970 and comptometers quickly fell out of use.

What happened to my arithmetical progression? I'll refrain from giving you an account of my career but now I'm at home deep in the world of words having an ongoing affair with my personal computer.

Jean Gardner

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