Guidelines for Identifying Tools

Woodworking Tools

Cobbler's Tools

Blacksmith's Tools

Scottish Transport & Industry Collections Knowledge network

National Museums Scotland

MUSEUMS ASSOCIATION

Tools FOR SELF RELIANCE practical help for practical people

Esmée Fairbairn FOUNDATION

Introduction

The object of this guide is to provide advice on identifying tools, things to look for and the key resources to use.

Woodworking Tools

Our example is a brace (or bitstock), a tool which was used with a bit by carpenters and joiners, certainly from the start of the C15th, for making holes quickly and cleanly up to about 2 inches in diameter.

As a boring tool the brace consists of a chuck or pad for holding the bit at the foot, a head at the top for a hand-hold, and between the two a crank for rotating. The earliest braces were made from one piece of wood or metal with the bit fixed permanently in the end, but by the nineteenth century the common practice was to use detachable bits for different sized holes. Bits could be held in the socket by latches, buttons, and from the mid-nineteenth century side screws (thumbscrews) to tighten against the bit. Gradually wood was replaced by metal.

In 1848 John Cartwright of Sheffield took out a patent for a brass-framed brace. Two kinds were shown; a divided brass frame with wood (often ebony) infill between, and a solid brass frame with the suggestion that horn or exotic hardwood might be used for the head and filling. The patent was purchased by William Marples, who by 1854, had put the “patent metallic-framed brace” into production and coined the very memorable description “Ultimatum brace”. When the patent protection ran out in 1870, other Sheffield makers muscled in and the brass-framed brace became a standard ‘trade-brace’ product, often without trade names. Manufacture of ebony braces had ceased by 1905.

W.1987.4 Ultimatum joiner’s hand brace, brass framed with hardwood head, handle and inserts, with five assorted bits. Stamped inscription on brass face, head end: ‘HIBERNIA’ with motif of three sprig clover beneath, and ‘By Her Majesty’s \ Royal Letters Patent’ forming an oval stamp. At chuck end: ‘WILLIAM MARPLES SOLE MANUFACTURER \ OF THE ULTIMATUM FRAMED BRACE’, with Royal Coat of Arms beneath and ‘Sheffield’ in copper plate. Punched owners mark on wood inset, chuck end, ‘CAPSO’. Made by William Marples & Sons, Hibernia Works, Westfield Terrace, Sheffield, England. c.1860-c.1885.

Reading

There are scores of different woodworking tools, and for most you will find them called by at least two alternative names.

The best approach to cataloguing woodworking tools is to use the literature. The biggest and best reference book is R. A. Salaman's 'Dictionary of Woodworking Tools'. Don't attempt to read through it, it is a dictionary, so use it as such and dip into it every time you want to check or identify a woodworking tool. If you do this enough times, you will gradually find that the next time you see the same item, it sticks with you.

Tip: Salaman is heavily illustrated, so when you look at his book for the first time, just flick through it and you will find that you can identify items you know you have seen in store, but always wondered what they were used for. This is the Bible!

Additional useful reading:

- 'The History of Woodworking Tools' by W. L. Goodman (Bell & Hyman, London, reprinted 1978).
- 'Classic Hand Tools' by Garrett Hack (The Taunton Press, 1999).
- 'Let's collect Old Woodworking Tools', by Dudley A. Layton (Jarrold, Norwich, 1977).
- 'Woodworking Tools' by Christopher Proudfoot and Philip Walker (Phaidon/Christie's, 1984).
- 'The Rule Book – Measuring for the Trades', by Jane & Mark Rees (Astragal Press, 2010)
- 'Tools – A Guide for Collector's', by Jane & Mark Rees (Roy Arnold, 2nd edition 1999).

Cobbler's Tools

Cobbler's (and shoemaker's) tools are fairly specialised. Quite a few museums in Scotland tend to have acquired the entire contents of a local cobbler's or shoemaker's workshop, or at least all their working tools, perhaps in a couple of boxes. Sometimes such an offer is made to the local museum after the user's retirement from the trade.

If you have such a grouping of tools in your museum it will give you a good idea of the various working processes the cobbler or shoemaker carried out in the making or repairing of footwear, if only you knew what the tools were. Again, one has to rely on the literature, and fortunately there is one excellent publication, R. A. Salaman's 'Dictionary of Leather-Working Tools, c.1700-1950 (and the tools of allied trades)', Astragal Press, 1986. This is by far the best source of information, because Salaman devotes the whole of Section 2 (166 pages) to the tools and processes of the boot and shoe trade. Just about every tool you will come across will be found somewhere in here and there are very useful reproductions of multiple pages from catalogues of specialist shoemaking tool manufacturers.

T.1860.597.19 Welt wheel, (describe materials, for example wooden turned handle, metal serrated wheel); one of a group of shoemaker's tools.

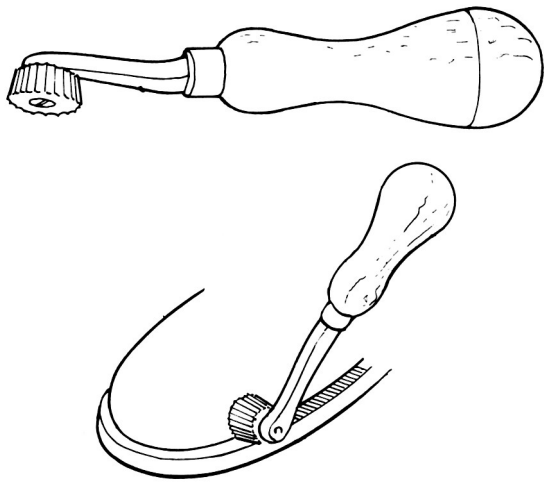

Image from Salaman

The ‘welt’ of a shoe is a strong strip of good quality leather sewn round the lasting margin of the upper, and joining it to the insole. The sole is then stitched to the welt by a second seam.

The welt wheel (also known as a fudge wheel, rand wheel, or jigger) is a serrated wheel in the shape of a cylinder or truncated cone, set to revolve on a steel shank which is sometimes ‘bent’, and provided with a wooden handle. The wheel is lightly heated and then run round the welt - sometimes to imitate a hand-stitched welt; sometimes to tighten (flatten) the stitches on the welt and to give them a regular and neat appearance.

Blacksmith’s Tools

The contents of a smiddy and nearly all blacksmith’s tools fall into 9 categories. 8 are based on the forging work undertaken by all blacksmiths, and the ninth is farriery – making and fitting horseshoes (shoeing) for horses. In some villages the blacksmith doubled-up as the farrier, rather than the other way round.
Bear in mind blacksmith’s frequently forged their own tools, and of course made and repaired a wide range of home, work and agricultural equipment for the local community.

Forge work:
1. Cutting – in the red-hot pliable condition iron could be cut as easily as thick leather. Tools: hot sets, cold chisel, hacksaw.

2. Fullering – routine work, sometimes called ‘drawing’, was the means of making iron of a large dimension smaller. Tools: fullering irons, top and bottom fullers, flatters, swages, swage block.

3. Upsetting – to thicken or bulge iron, bunching up the metal into an extra thickness in certain places before forging or welding the work on an anvil. Tools: straight peen hammer, upsetting plate, heading tools, buttonhead set.

4. Bending – the blacksmith made bends of every description on most of the work he did. Tools: anvil sharp edge, horn and bickern, scroll starter, scroll forks.

5. Welding – joining two or more pieces of iron into one, Tools: straight, ball or cross peen hammers, various tongs, anvil

6. Punching – the simplest way the blacksmith had of making holes in iron was to punch them. Hot iron punched easily, and it was much faster than even a hand drill. Tools: punches, drifts.

7. Riveting – a simple means of attaching blades to implements, shears, tongs and other tools with movable arms. Tools: Ball peen hammer, anvil

8. Tempering – hardening a tool by repeated heating and rapid quenching to achieve a certain degree of hardness.

A wide range of hammers and tongs were used for some, if not all, of processes 1 to 8.

9. Farriery work – removing, making and fitting horseshoes, and forging other horse gear. Some veterinary work. Tools: hoof parers, pincers, knife, searcher, stamp or fore-punch, shoe-turning and nailing-on hammers. Fleams and mallets for blood-letting.

Our example is some tools on display in the National Museum of Rural Life, kindly taken by Elaine Edwards.

W.2000.110 Ironworking tools from part of the Oliphant blacksmithing collection, from Oliphant Blacksmiths, East Crosscauseway, Edinburgh, Midlothian.

Top row: 1) Hot set. 2) Top Set. 3) Hot set. 4) Flatter.

Centre group of small hardie hole tools, clockwise from top left: 1) Bottom swage tool. 2) Bottom swage long channel. 3) Bottom swage with narrow channel. 4) Bottom swage with broader channel. 5) in centre of group - Mandrel for the hardie hole.

Reading

Personally, I feel blacksmith's tools have the greatest potential to baffle. There is often not much of them, and they yield up their secrets only very reluctantly. I found the best approach was to read up on the processes and work of the blacksmith first. After that, some of the various tools began to fall into place and make more sense. Fortunately, there are one or two quite good books on the topic.

- Jocelyn Bailey, 'The Village Blacksmith', (Shire 1998)
- Ronald Webber, 'The Village Blacksmith' (The Country Book Club, Newton Abbot 1972)
- M.T. Richardson (Compiler and editor) 'Practical Blacksmithing' Pts 1 & 2, (Astragal Press reprint 1998)
- Aldren A. Watson, 'The Blacksmith – Ironworker and Farrier' (W.W. Norton & Co. 1990)

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