You may think that I spend time in shop B because I've nothing better to do. Well that is not the case. There are lots of things I'd rather do. When I started a project at the Menzshed, I struggled to locate the materials and tools I needed. It became necessary for me to organise the stuff heaped indiscriminately against walls and on benches before I could even begin. I don't know how the other guys found anything at all.

I have always been intrigued by taxonomy, that's the organisation of classes of things. One of the earliest taxonomists was Linneus, a Swedish botanist who classified his collection of flowers based on the type of reproductive system. That evolved into the Psuedo Latin biological classification we use today. Classifying things made them easier to recognise, find and tell others about.

It all seems natural now since the growth of the supermarket. When you do the weekly shopping you know where to find what you want. You don't have to remember exactly where everything is. You carry the set of categories in the head and use the direction boards to tell you if you are in the right aisle.

We make it easier by arranging things with some similarity close to each other. Not colour or size of packet, but the type of need the product will fulfill.

This enables us to remember, by a very strong sense we have, that is GEOGRAPHIC LOCATION. We go to where we found it last time. The fisherman goes back to the place where he caught the big one last time. This is instinctive. Location is more important that other characteristics when searching for something. When you lose your keys, you go to where you last remember having them

So to find the things we want out of an inventory of a thousand products, location and points of similarity are most important. You find it by WHERE it is and what it is associated with. So I don't like to move things once a good location has been established. However, categorising and sorting the fastenings is a work in progress and it will never be finished. There will be changes. No system is perfect. Every one has its break points where it has to give way to another. Classifications are a function of words not things and they suffer from the weaknesses of language.

To divide up the bucketsful of mixed fastenings that we are given, means we must make decisions on how to sort and where to make the breaks. Do we sort nails for length or thickness or degree of rust? Do we arrange screws for head style (dome, countersunk, lens, cheese) or is the driver slot more important? What about metals and finishes? Chrome, brass, stainless, anodised? Should we sort metric from imperial? after all, imperial measure for screws goes up in ¼ or 1/8 inch steps. Metric is stepped at 5mm. How important is that difference between 3/4" (18mm) and a metric standard 20mm? Not much difference between 1/4" (6mm) and metric 5mm.

If each of these subtle differences were separated out, the containers holding the fastenings would number thousands. This makes your job of finding what you want even more difficult, aside from the practical consideration that there is not enough space in the Shed! We already have around 1500 different containers in Shop B.

So we compromise. We make broader categories. We find out HOW people look for fastenings. Often a member will come in to shop B holding his fingers apart like there should be a sandwich between them and say; I need a bolt this long!

I might reply; How many millimeters is that? What gauge (thickness)? What metal? What head type? (to name just a few of the categories we do use).

The fact is that most users are not too fussy and so we can afford to broaden the categories. 5/8" and 15mm can be in the same tray. They may well have a range of gauge from 6 to 9 (marked 8g) and a range of thread types – wood screw to self tapping. The user has to do the final sort. This is afterall not a shop and we don't charge for the product. And no gift wrapping.

METAL; The first level of distinction is the metal. Coded yellow on the top row are all brass, copper and non-magnetic stainless steel. The **yellow** code runs into the brass machine screws and bolts. If not on a yellow shelf, it's made of steel.

Second level sort for nails breaks them up into "bright" and "galv". Clouts and jolts have not been separated yet.

DRIVE; One thing we find the enduser asks for is the type of drive on the screw or bolt. So we made this the second level of differentiation for these. Screws are distinguished by cabinet as "slot" to fit a hand screwdriver, and "cross" to take a power driver. No distinction between posi and philips and combi. They are all "cross" drives to me. In the case of screws, countersunk and domed are in the same cabinet in the same sequence. But we did try to mark the pottles as "sunk" & "dome" so you can find the one you want quickly.

Small bolts with a domed slot head are called machine screws because they are designed to be driven by a hand screwdriver.

There are also square drive, star drive and "hex" or "tex" for use with a powered socket driver. Square drive screws are popular and have the **black** coded shelf. Star drive and hexagonal drive socket screws are on the bottom shelf coded red.

Hex and tex, which take a ring spanner or powered socket wrench are in the green shelves beneath the brass machine screws. There are also square headed screws (called coach screws), a style reminiscent of horse drawn wagons.

Bolts are distinguished by hex head, dome (slot), countersunk (slot & cross) and coach bolts with their square shank under the head. Each has its own shelf in the grey cabinet by the door. Very long bolts are on the top shelf to avoid being caught on passing clothing.

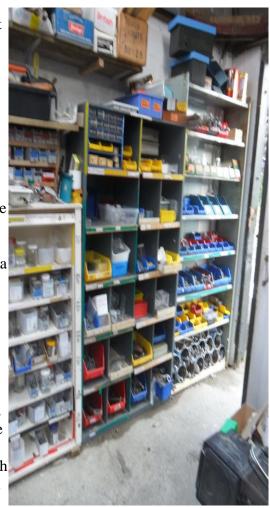
LENGTH; The third level of sort in each cabinet. Nails and screws are ordered from short at the top left to long at the bottom right. Screws in both "slot" and "cross" cabinets also follow this order.

GAUGE; The fourth level is gauge and are ordered after size along the shelf. Nails are given as millimeters diameter. Screws are given as gauge, number followed by g. Bolts are given as millimeters diameter, number followed by M for metric, if they are in original packing.

THREAD; Thread type is another matter entirely. We have not sorted for this. Metric was introduced to use to make thread selection easier. But there are still all the older standards hanging around. Sometimes you need to match a Whitworth or American Fine. But in order to keep the numbers of pottles within available shelving, the categories get a little blurred. You may have to sort first for metal, length, gauge/diameter, and head type before you start testing the thread pitch.

THE HUMAN ELEMENT; Having volunteers sort the fastenings throws decisions onto the person doing the job. Sometimes the drive types are mixed and sometimes there may be a range of diameters in the same pottle. One will decide that a length of 18 - 25 constitutes an inch

One will decide that a length of 18 - 25 constitutes an include whereas another will fill the pottle with 25 - 32mm. I just



use the width of my thumb for 25mm/linch. Afterall, that's what King Henry VIII did. Where does a category end. Without complex and sophisticated jigs and rules, it's all in the mind. I do not expect volunteers to be precise with every piece. They are not machines.

So there has to be a certain amount of tolerance. During my years as an art student, I recognised that no two people divided colours up in the same way. Everyone disagreed where green became blue or magenta becomes purple. Some seemed to manage with 5 words for colour. I needed 30 and that was just the hues. Names are a sliding event. Names after all are not the object but only a verbal label we use for a gross category. When we use them for a continuum like a spectrum, they have to be somewhat elastic. Boundaries are blurred. It's called fuzzy logic.

The same goes for classifying fastening devices. There is no distinct boundary. Sometimes a nail is also a screw. Sometimes a bolt is a machine screw. Self tapping screws are in fact a type of bolt. Then there are many parts that do not fit these categories such a internally threaded bolts and threaded washers, wing nuts and screw-bolts. This crossover leaves us with many related and associated concepts which have to be contained and placed where they can be found, where anyone might look for them.

Nuts and washers still remain to be sorted. They are in the green shelving between bolts and hex screws. This may change as we look for more space for the multitude of small pottles still to be sorted.

Once the simple fastenings have been completed, we hope to look at wall fixings such as Gib Board anchors, Rawlplugs and Ramset devices, with possibly picture and curtain support systems. But it all depends on volunteers wanting to give up their time to what many see as a boring subject.

James 2016jul18