Project kits

Walter Hall looks at some of the things that can be made from project kits

PHOTOGRAPHS BY WALTER HALL

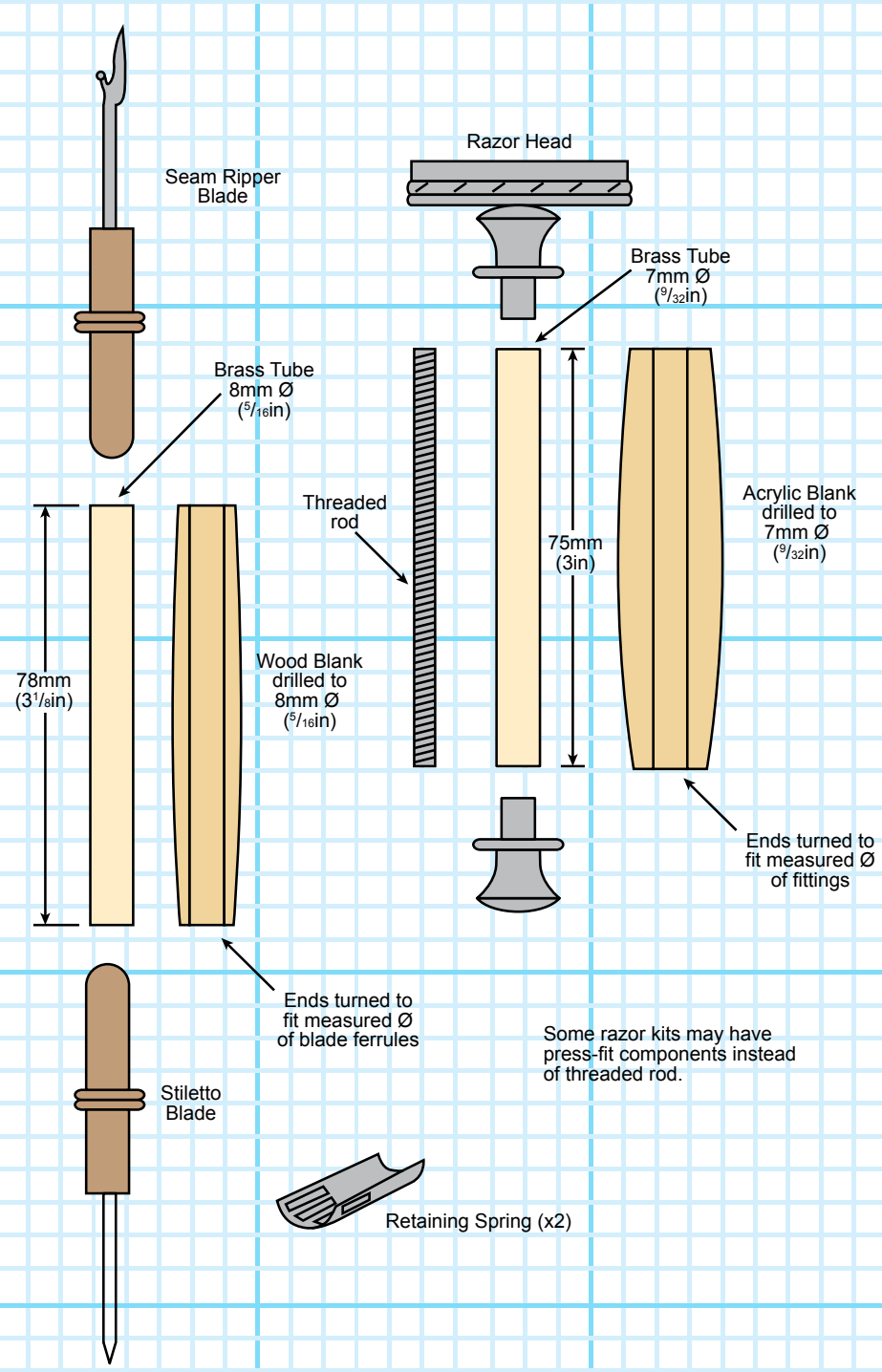
Many novice woodturners develop their basic spindle tool skills by making pens using the many and varied kits available. Some then go on to concentrate on pen-making, a fascinating craft in its own right, with many options from casting to bespoke pen-making, while others find that other aspects of woodturning hold more appeal and go on to develop further skills and produce both practical and artistic works. Whatever your interest or level of skill, it is worth noting the ever-increasing variety and improving quality of other project kits on the market. These range from keyrings to seam rippers and present the maker with the opportunity to produce quality giftware that would be difficult or, in some cases, impossible to create using wood alone. A working razor for example would present an extreme challenge even to those with metalworking as well as woodworking skills.

In this article, I illustrate some of the kits available and offer advice on how to make the best of them to produce top quality products that will not only be well received by their final owners – whether as a gift or purchased from a craft fair – but also robust and long lasting. In this article I will focus on the key elements of the making of a seam ripper in burr elm and an acrylic razor.

All of the techniques shown in making these can be transfers to the other projects shown on the main image.

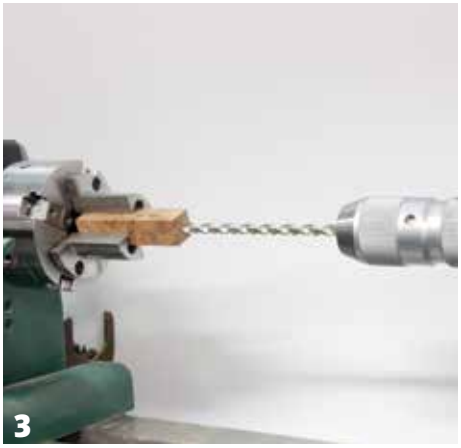
TOOLS AND MATERIALS

- 20 or 25mm spindle roughing gouge
- 13 or 20mm skew chisel
- Seam ripper kit
- Safety razor kit
- Figured wooden pen blank of choice
- Acrylic blank of choice
- Abranet 240- 400 grit
- Medium cyanoacrylayte adhesive
- Melamine lacquer
- Cutting/polishing compounds
- Tack cloth
- Safety cloth
- Paper towel or tissue.



1 Here is a selection of the many project kits available. All can be made using the skills and tools used to make a simple pen. From left to right are a letter opener, key ring, magnifying glass, two types of razor (mach 3 and safety) and a seam ripper.

2 An important part of ensuring a quality product is the choice of blank. For the seam ripper, I have chosen a piece of burr elm with a lot of figure. Mark off to length the most figured part of the blank just slightly longer than the brass tube to allow for squaring off.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3 The barrel is longer than most pen blanks so will have to be drilled on the lathe since most pillar drills will have insufficient travel. Using a chuck fitted with pen blank or pin jaws and a long drill bit in the tailstock chuck carefully drill out for the brass tube.

4 Glue the brass tube into the blank with epoxy or polyurethane glue. Once set ensure a good fit to the components by squaring off the ends of the blank with a barrel trimmer or, as shown here, using a disk sander and jig. Well-fitting components are key to a quality product.

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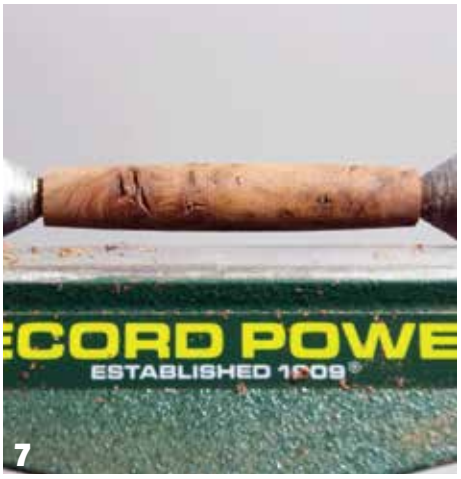
5 Bushes are available for this kit so you could turn it on a pen mandrel. An alternative is to simply turn between centres as I have done here. When not using bushes between centres take great care not to overtighten the tailstock quill or you will flare the ends of the tubes. Remember to wear appropriate PPE before you start turning.

6 Carefully turn the blank down to size with a spindle roughing gouge. Ensure a good fit by using callipers set to the diameter of the components. I use an old Vernier calliper with the inside edges of the jaws slightly rounded off to prevent catching.



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7 When using highly figured burrs you may find that voids and other defects show up in the blank. While at first these may look disastrous there are many ways of recovering from this problem. I chose to fill the voids with CA glue, but you could use epoxy mixed with brass powder or other materials to achieve an equally attractive result.

8 Once the voids are filled, sand the blank back through the grits to about 400 and apply the finish of your choice. I used melamine lacquer which gives a hard-wearing and natural-looking satin finish but you could use acrylic lacquer or CA if you prefer a high gloss.

9 The working parts of the seam ripper are retained by small springs which must be carefully curved and inserted into the ends of the brass tubes, taking care not to crease them. If necessary they can be retained with a drop of CA adhesive applied with a cotton wool bud.


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10 For the razor project, I chose to use an acrylic blank. I prefer acrylics for projects such as this where the finished product will frequently be immersed in water. Begin by cutting the blank to length then drill for the brass tube. Mark the drill with tape so that it stops just short of breaking through.

Hints for drilling acrylic

One of the questions I am most often asked is how to avoid blowout of acrylic blanks when drilling. The main reasons blowouts occur are drilling at too high a speed and failing to withdraw the drill bit regularly enough to clear the swarf. Both of these things cause overheating and make blowouts more likely. Slow speeds, regular clearing of the swarf and stopping short of drill all the way through the blank will ensure successful drilling.

11 Once the blank has been drilled to the marked depth remove it from the chuck and cut a thin slice from the closed end on the bandsaw. This will leave a nice clean hole with no breakout. Glue in the tube using epoxy. With light coloured blanks paint the inside first to prevent the tube showing through.

12 Mount the blank on a mandrel with the appropriate bushes. A compression type mandrel such as the one I used will help prevent bending of the mandrel or 'whip' when turning. You could of course turn between centres as we did for the seam ripper project.

13 Use sharp tools and light cuts to avoid chipping and breakout of the acrylic blank. Lots of fine swarf will be produced so position the inlet to a dust extractor close to the work. Appropriate PPE such as a face mask or respirator should also be used.

14 No matter how much care you take and irrespective of the dust extraction provided you will end up with strands of swarf wrapped around the work and the mandrel. You can easily clear this with an old paintbrush while the lathe is running rather than keep stopping to remove it by hand.

15 Once you have turned the ends of the blank down to the bushes and achieved the shape you want for the razor handle begin the process of finishing the work by sanding through the grits of abrasive down to about 400. I used Abranet but any good quality abrasive will do.

16 There are many ways of polishing the acrylic. These range from wet sanding through the grits of micromesh to using a burnishing cream. All of these methods are effective but I find the quickest is to use two grades of water-based cutting compound such as Farecla 300 and 500.

17 Unlike many kits which use press fit components, this razor uses a threaded rod to connect the components to the blank. Final assembly is therefore a simple matter of screwing the components together.

18 The result is an attractive and practical product that will stand up to years of daily use and look attractive in any bathroom. A matching stand is all that is required to show off your work to its best advantage. ●


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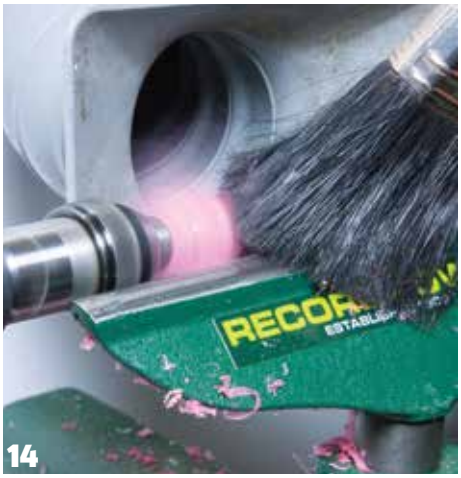
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