

Star Setting by Peter Keep

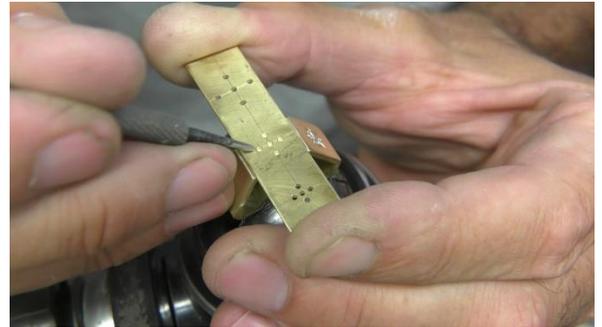
Star setting is a traditional way to grain set a small diamond to make it appear larger. This old school technique is not often applied to modern jewellery as it's regarded as a little old fashion. But the graver skills learnt during this lesson will serve you well for future bright cut setting work. The JTS stone setting packs are supplied with blanks and stones as well as other videos showing a variety of bright cutting techniques as well as instructions on making tools and preparing your gravers.



Step 1:

There are several ways to mark out the four points of the star. Most experienced stone setters will trust their eye and avoid preliminary markings, but when you are in training you should use all the help you can get. There are templates available that have the four points ready to mark from. Alternatively, you can make a simple marking tool.

Drill at the point where the stone will be set with a 1mm drill. The template can now be lined up to the hole and the four marks impressed into the metal.



Step 2:

For the first few settings that you attempt; mark your lines in firmly to help keep your graver on track. Lessen the visibility of the marks as you progress. Because jewellery surfaces are rarely flat, you can't rely on holding a ruler flat down to scribe from. Using a scalpel as a marker can help to keep your lines straight. You can now scribe the lines from the four points into the hole with a scalpel.



Step 3:

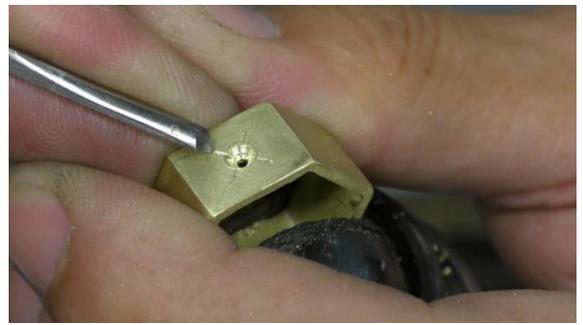
Open the hole out further with a drill approximately half the size of the stone diameter. Bur the hole with a cone or bud bur until the stone sits onto the edge. Set your dividers to the length that you want the spokes, in this case we are using a 2.5mm stone, so set your dividers to 2.5mm.

Mark from the edge of the setting along each cross line. This will help to keep the spokes the same length.



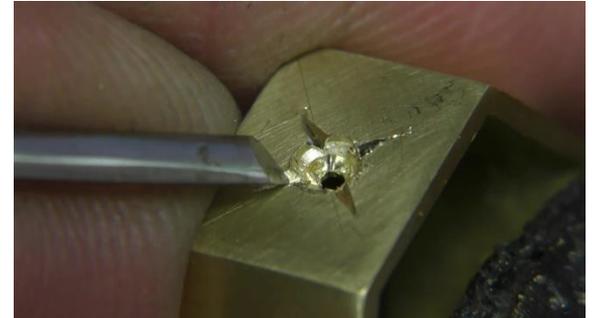
Step 4:

Ensure that your square graver has been prepared properly and that it is sharp. Begin to cut at a low angle from the marked point on each spoke. The first cuts will not remove much metal but should establish a straight cut into the hole. Begin to lift the graver slightly to increase the angle. Continue cutting, digging deeper as you approach the setting.



Step 5:

Cut all the way into the setting hole making sure that there is no chance of stabbing your other hand. The spokes should begin to widen as you cut through. You may need to wobble the graver to keep it moving. Avoid wobbling the graver for the final cuts as this will leave unwanted marks.



Step 6:

The first few stars may look untidy, but with experience and a well-prepared graver the cuts will look polished and sharp.

Before seating the stone, make a cut between the spokes into the setting with your scalpel. These will be used later to secure the stone and should be no more than 1.5mm in length.



Step 7:

It is not essential to click the stone into place as practised during gypsy setting, so in this case a tapered setting burr the same size as the stone is a good burr to use for cutting the seat. If your stone is set to the correct depth, you should be able to just see the table of the stone when viewed from the side.

Position the stone and ensure that it is perfectly level.



Step 8:

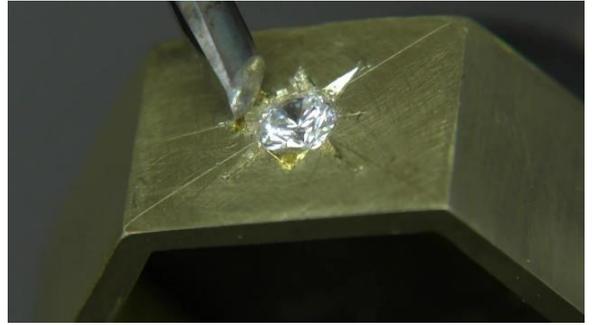
Position the square graver at the start of the markings between the spokes. This time the graver should be approximately 45 degrees from the setting surface. As the graver digs into the metal a grain will begin to move upwards and towards the stone. At the same time the metal will bulge forward inside the setting. It is this action that traps the stone into the setting. Ensure that you lift opposite grains and not grains side by side. This will help to keep the stone level. If you push the grain too far, the graver could break through the setting and damage it beyond repair. If you are not too sure, leave it short then check to see if the stone is secure.



Step 9:

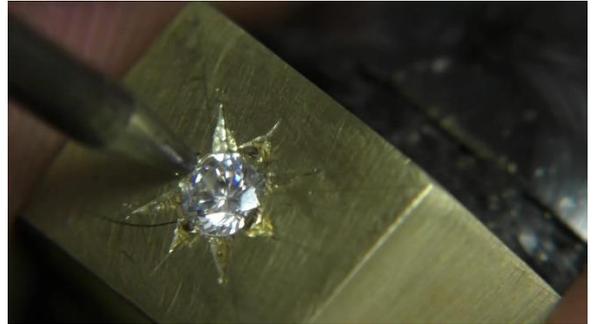
On the final push towards the stone, lift the graver a little more to dig further into the metal. To frame the triangular shaped cut to look more professional takes a few attempts to get right.

When the graver is lifted, twist and push the graver until the edge of the graver face cuts along the edge of the lifted grain. Repeat this on the other side of the grain edge. Continue until all the grains have been lifted and framed.



Step 10:

Select a beading tool that cups the grain without over pinching the metal. If the beader is too big it will make too much contact with the stones. Roll the beading tool onto the grains again working on opposites. Angle the tool slightly to avoid contacting the stones crown facets.



Step 11:

Forming the grain into a rounded bead will close the gap between the grain and the stone as well as tighten the stone. This also adds to the decorative look.

A final tidy of the star edges might be necessary and can be done with a flat graver. Check to see if the stone has any movement by probing it from underneath.



Step 12:

Keep practising, it's the only way to improve. Try different sized stones; try shorter or longer spokes.

This technique is an ideal graver skills test and should be mastered before attempting other bright cutting tasks.

Check the quality of your work. Assess your work as if you are the customer receiving it.



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