TRADITIONAL CRAFT FOR MODERN LIVING

LEATHERWORKS

BY OTIS INGRAMS

PHOTOGRAPHY BY SIMON BROWN

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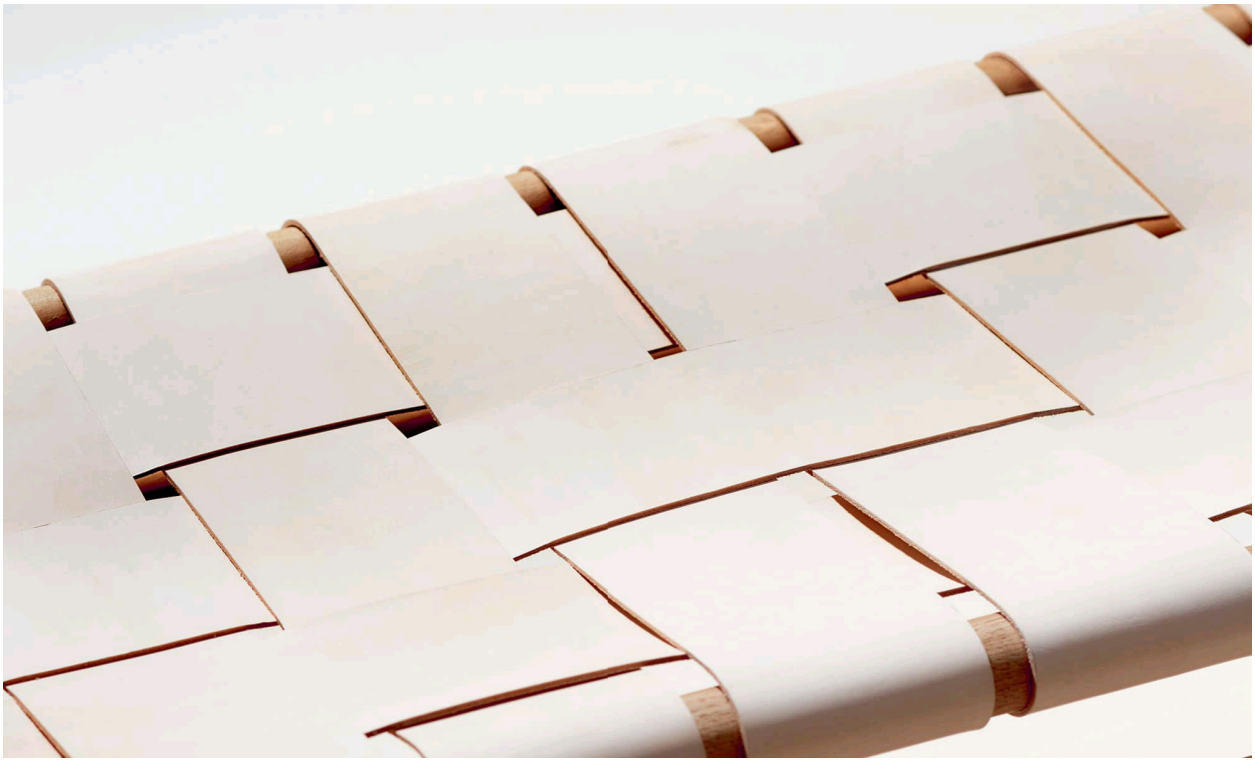
small



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Acknowledgements and resources

Why I work with leather

I fell into leatherwork, fell in love with it and never looked back. It is not a career that I set out to have, nor had it ever been on my radar. Then I made my first piece. Within a few months I knew that I wanted to pursue the craft indefinitely.

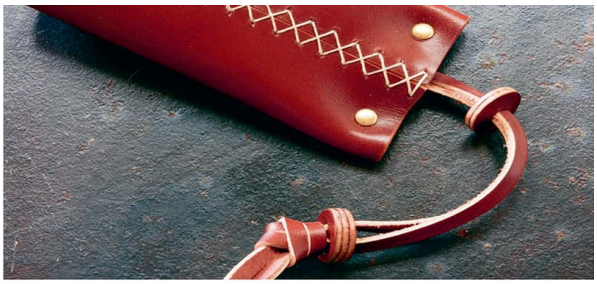
One of the great appeals of the craft is the ease of the initiation process. With no sawdust or filings to clear up, it is predominantly a tidy craft and one that can be practised in small spaces and domestic settings. I have worked in my kitchen, in barns, on shop floors and even in hotel rooms. Most of the tools used for leatherwork are hand-held and therefore small in size. They are often beautiful in form, and are satisfying to use and eventually master. When I first started, I quickly saw a progression in skill with practice, and continue to notice improvement today. The equipment and leather are easily portable, making it possible to work anywhere, something very few crafts offer. Due to the sheer variety of tools that accompany each area of leatherwork, I never get bored. There are always new techniques to discover, practise and improve on. The leatherworking community is very active and generous with their knowledge – sharing techniques and documenting their work. I have learned a huge amount from my online contemporaries around the world.

The primary reason I started working with leather was, of course, the material itself. Leather – alongside others such as wood, stone, iron or bronze, reed and wool – is a very primal material. It feels natural to work with, and it is impossible not to feel connected to it through its organic origin. The intrinsic beauty of the material is something that always impresses me, and tanneries today produce a breathtaking array of finishes and colours for hides and skins of all kinds. Leather can be very thick and structurally rigid, or buttery soft, thin and pliable. Leather can be used to make a vast array of items, or it can be incorporated into items made of other things. It is this capacity and promise within the material that makes leatherwork so exciting and worthwhile. The variety of projects I demonstrate in this book hopefully reflects this potential.

And another wonderful aspect of the craft is the huge variety of tools. Each one has its own historical background and cultural significance, and provides a reflection of the historical reality within which they were formed. They have their own purpose, and their own governing principles and sensibilities. In turn, each

contains its own techniques and carries its own unique aesthetic. I have incorporated many of these within the projects.













Types of leather

There are few materials or organic substances derived from nature that offer such a vast array of potential as leather. In the same way as the grape produces an almost infinite variety of wines, or as milk when processed turns into butter, cream or cheese of varying finish and flavour, by tweaking the tanning process in the journey from animal skin to leather, the tanner creates an endless variety of substance, structure, texture and finish. Now more than ever, with contemporary technologies, the leather industry around the world is creating a dizzying assortment of leather for all sorts of purposes – from traditional bridle leather used for case-making and equestrian equipment to soft and supple upholstery hides used in the manufacture of furniture and automobiles. The dazzling colours and finishes on offer provide the leatherworker with more opportunity in crafting and designing than ever.

I have always preferred the traditionally produced vegetable-tanned leathers; this natural process involves bark from oak, chestnut, birch and mimosa trees, along with other plant extracts. A liquor is created from these vegetative materials in which skins are steeped for a lengthy period of time – up to 12 months in some cases. The tannins are astringent and penetrate the fibres to take out the moisture, resulting in a stronger leather. Tanners use various types of tannins to create different types of leather, and with subtle variations in the recipe, different leathers can be produced. Leathers are finished in a process called currying, whereby the hides are rubbed with dyes, oils, waxes and fats to increase suppleness in the leather, to make it more usable. The amount of each finishing substance used also determines the type of leather it will become. Chrome tanning involves chemicals rather than natural substances, and is a much quicker process. Latigo leather is produced with a combination of both vegetable and chrome tanning. All the leathers used in this book are vegetable tanned.

Most leatherworking uses bovine leather for its strength, sheer size and versatility across a range of uses. You refer to cow ‘hides’ and sheep, pig or goat ‘skins’. The cow hide is usually split into three cuts or sections: shoulders, butts and bends, and sides. A shoulder has more grain marks across it and comes in a more or less square panel. It is usually thick yet flexible, and is a great all-round cut to use. Butts are the strongest part of the animal and have a tight compact grain. Comprising the whole of the back below the shoulder, they are used for belts, straps and saddlery: work where durability and strength are needed. A bend is half

a butt and is used more often than a whole butt, as it is more manageable to work with. Sides comprise a bend plus half a shoulder and run the length of the cow, as the name suggests.

Getting started with tools

One of the great attractions of leatherworking is the tools. The variety is huge and each one has a very distinctive purpose – it can be quite overwhelming when faced with the full gamut. The emblem of the leatherworker or saddler is the iconic round knife with its broad sweeping arc of a blade. Similarly, the uniqueness of these tools, such as the pricking iron, gives them a great character. They are designed to perform a single function as well as possible. It is easy to spend a huge amount of money on tools, simply due to the sheer number of them.

The quality of these tools also varies wildly and the higher-end hand tools from companies such as Vergez Blanchard and CS Osborne cost a lot due to the work put into them. These are heirloom-quality pieces, however, and for any enthusiast they are well worth the extra money. Many of the old tool factories have closed, but their tools float around on the internet. Look out for names such as Dixon, Blanchard, Barnsley or Gomph. In recent years there has been a proliferation of cheap tools from the Far East that fulfil the basic requirements when you start out on projects – they are certainly far cheaper, but don't expect them to last forever. A first set of pricking irons can be purchased cheaply online, but do bear in mind that they can snap quite easily, and if you are looking to pursue leatherworking, then you should invest in good-quality ones. Similarly with knives. Make sure you buy one with a good-quality steel blade and a good sharpening stone. With a bit of research online you can find some. I have built a collection of antique tools of very high quality. They are often cheaper than a new equivalent.

For a basic set you will only need about ten tools. The essential starter kit should consist of: a bench set of stitching clamps; a diamond awl and harness needles; pricking iron (No.7 or 3-3.5mm/$^{1}/_{8}$in stitch length); hole/wad punch set (2–25mm/$^{1}/_{16}$–1in); oblong or pippin(buttonhole) punch; scalpel; skiving knife; wooden strap cutter; clicking knife or round knife (whichever you prefer); rivet setting tools. You will be able to purchase this whole lot for around £100–150 ($130–200). I found the best way is to buy a good knife, a strap cutter and the stitching equipment first and then add a new tool every month, setting aside a small amount to buy it. You will then acquire the set within five or six months.

Practising with the tools is an essential requirement. Work on smaller pieces so you can develop your hand-to-eye skills, especially on techniques such as saddle

stitching and hand skiving. Handling the unfamiliar shape of round knives will take some practice to master, but it is all well worth it.

Stitching Tools

01. Stitching clams
02. Linen thread – 3 ply or 4 ply
03. Beeswax block
04. Thread snips
05. Diamond awl

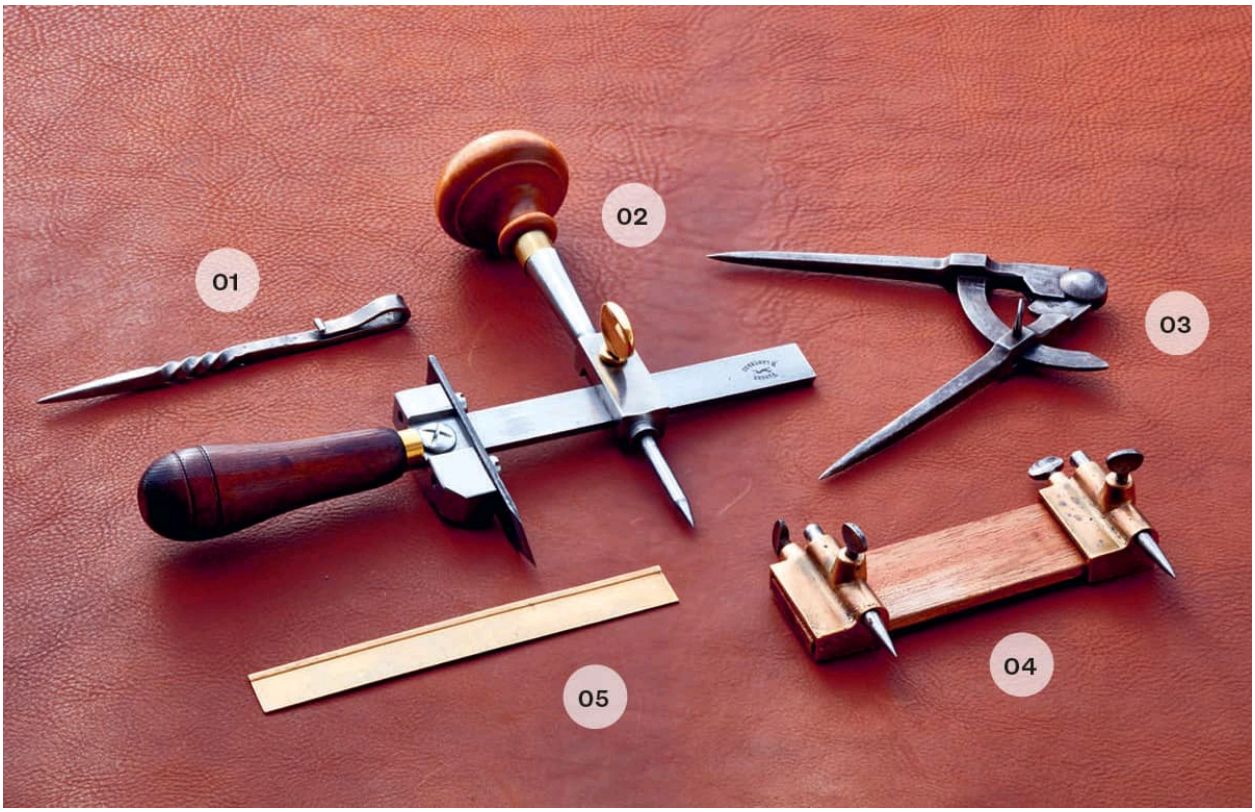
Pricking Tools

01. No.6 pricking iron – 6 stitches per inch (spi)
02. No.7 pricking iron – 7 spi
03. No.12 pricking iron – 12 spi
04. No.8 pricking iron – 8 spi
05. No.3 pricking iron – 3 spi
06. No.5 pricking iron – 5 spi
07. No.4 pricking iron – 4 spi

Finishing Tools

01. Palm hammer
02. Edge beveller No.1 and No.2
03. Edge creaser
04. Bone folders: natural cow bone, shin bone, Teflon

Measuring Tools



01. Scribing or scratch awl
02. Washer cutter
03. Compass dividers
04. Trammel points (for use with lengths of timber)
05. Metal ruler

Cutting Tools

01. English skiving knife
02. French skiving knife
03. Plough gauge – strap-cutting tool
04. Round knife – 18cm (7in)
05. Head knife
06. Large round knife – 30cm (12in)

Punching Tools

01., 02. Round hole punches

03. Eyelet-setting tool

04. Hollow rivet and eyelet-setting bases

05. Strap-end punch

06. Rivet-setting tool

07. Weaving slot punch

08. Chisel punch

09., 10. Oblong punches

11. Pippin, or buttonhole, punch

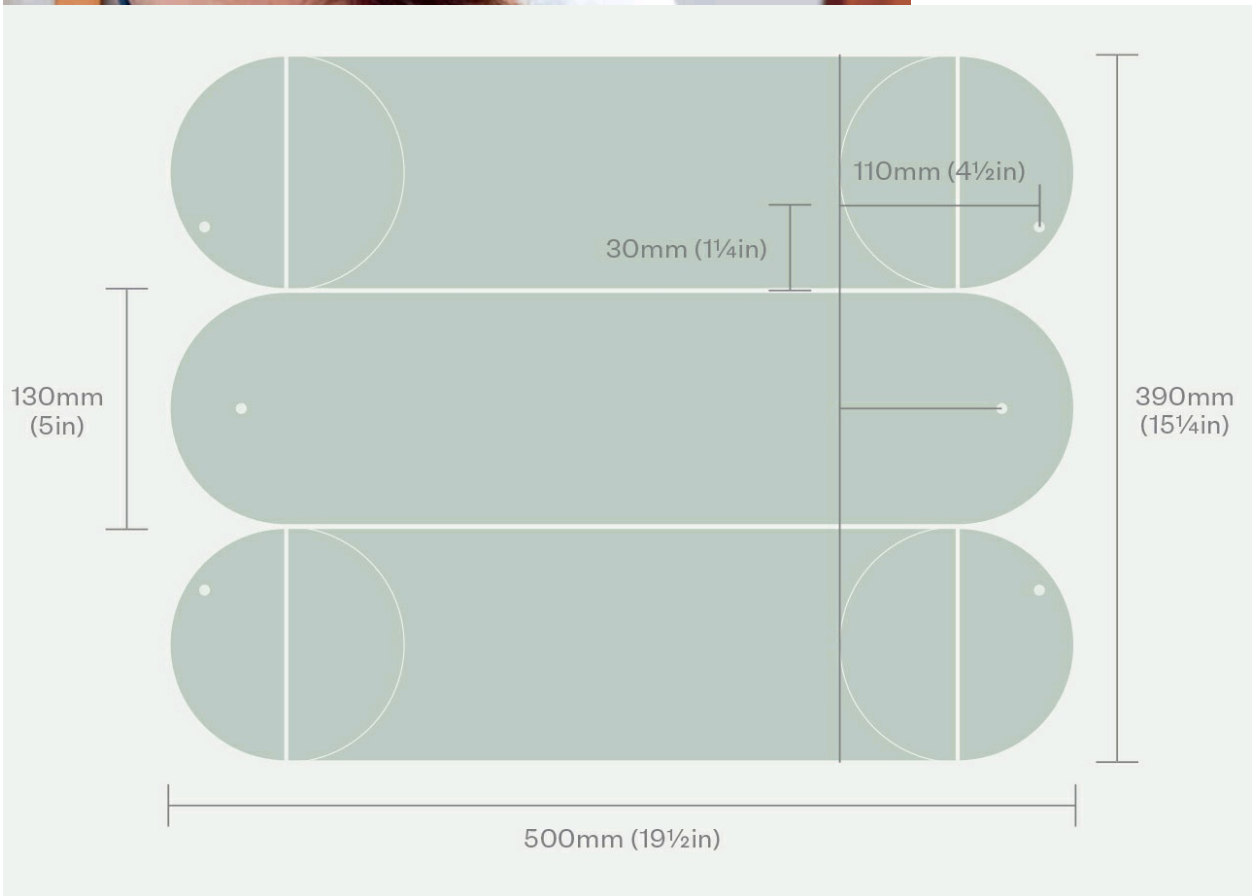
Working with templates

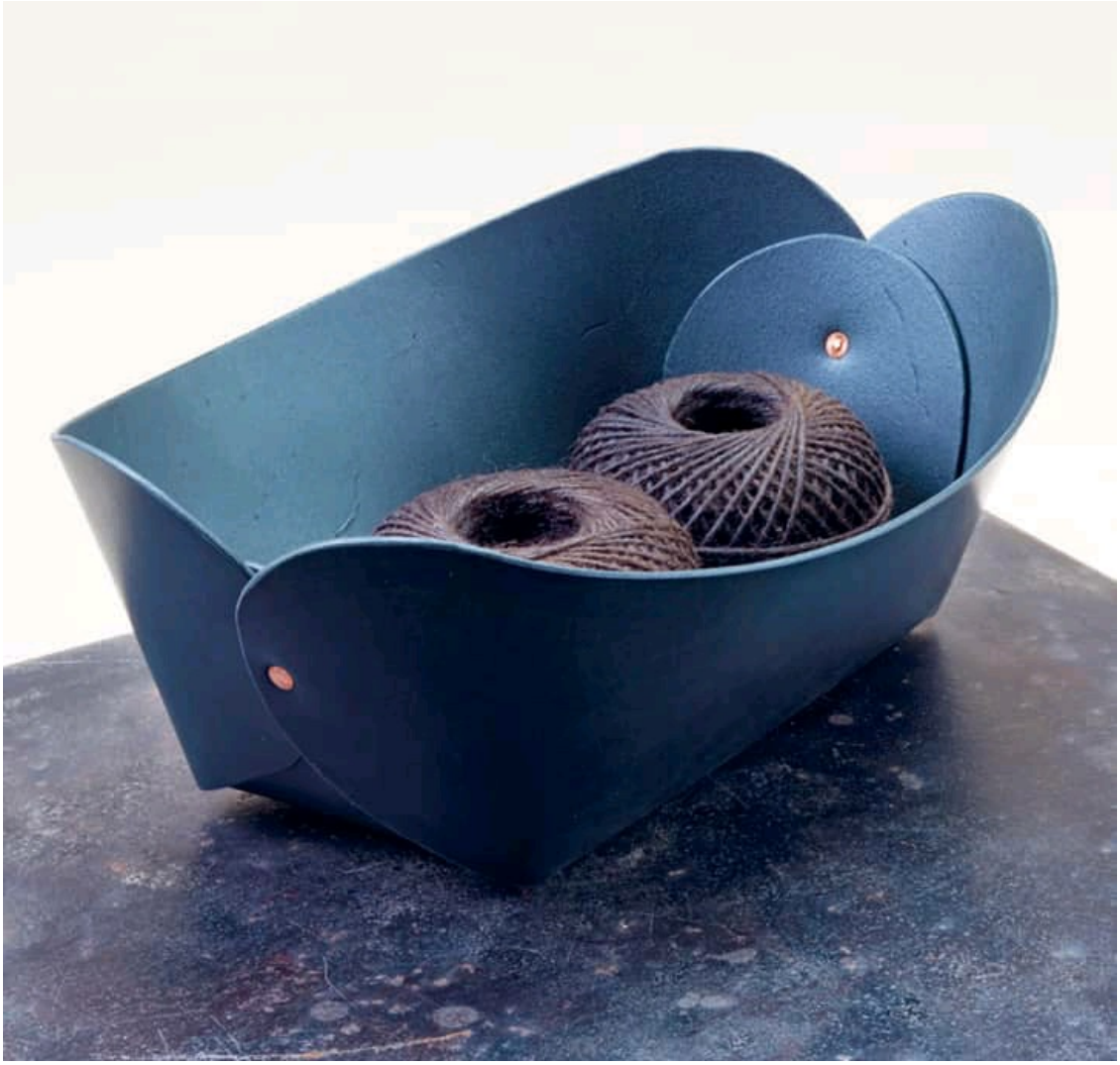
In the same way that woodwork, metalwork and tailoring possess their own individual intricacies and exactitudes, working with leather requires a certain amount of precision to create refined pieces. Of all the natural materials it is undoubtedly one of the most expensive, and therefore it is imperative that you respect it, care for it and use it well. Rarely, if ever, will you make an item perfectly first time around. Sometimes it takes five or six renditions and iterations of a project to get it how you would like it. It is always tempting to jump in and start making an item straight away without any proper design planning. However, leather can be very unforgiving and it may be impossible to rectify any issues that result. Using cheaper materials such as paper, card or even reconstituted leather will save you time and money and promote the practice of pattern-making, itself an incredibly useful skill to develop. To make accurate templates you will need tools and measuring instruments such as compasses, protractors and long metal rulers. These will give you true angles and straight lines.

Developing templates made from card is an essential precursor to making items from leather. Card doesn't behave exactly like leather, but it provides a structural medium that can be cut, folded and glued into place. It's also very cheap and easy to obtain – floor protection card is ideal. If you want something closer to the properties of the leather you are going to be using for the final item, try to get hold of some leather split – the discarded lower layer of the hide or skin that is shaved off when the leather is thinned down. Reconstituted leather – the equivalent of MDF, or fibreboard – is made from leather offcuts and particles blended with a binding agent. It can be purchased in large sheets pretty cheaply, and it's also useful for trial runs.

You should start with an accurate sketch of your idea with markings and measurements – a bag or wallet, for example. After pursuing a few variations and drawing a few angles and details, it is important to pull these drawings from the page and make it tangible; visualize it three-dimensionally and explore its potential and viability. Once you have calculated all your dimensions and cut the sections out, you can then work with the form and see whether you really like it, changing anything you don't or that doesn't work. No matter how many pieces you have for the design, cut them all out, even the small ones. Often the smaller, more fiddly details are the hardest to change and so it is important to check their proportion and

usability within the design. Try to create the whole piece out of card so that you can properly engage with the design. Sometimes your original idea might produce something the wrong size or be uncomfortable or troublesome to use. If you are making compartments or pockets to hold specific items, check to see they fit and are usable.


110mm (4½in)
30mm (1¼in)
130mm
(5in)
390mm
(15¼in)
500mm (19½in)



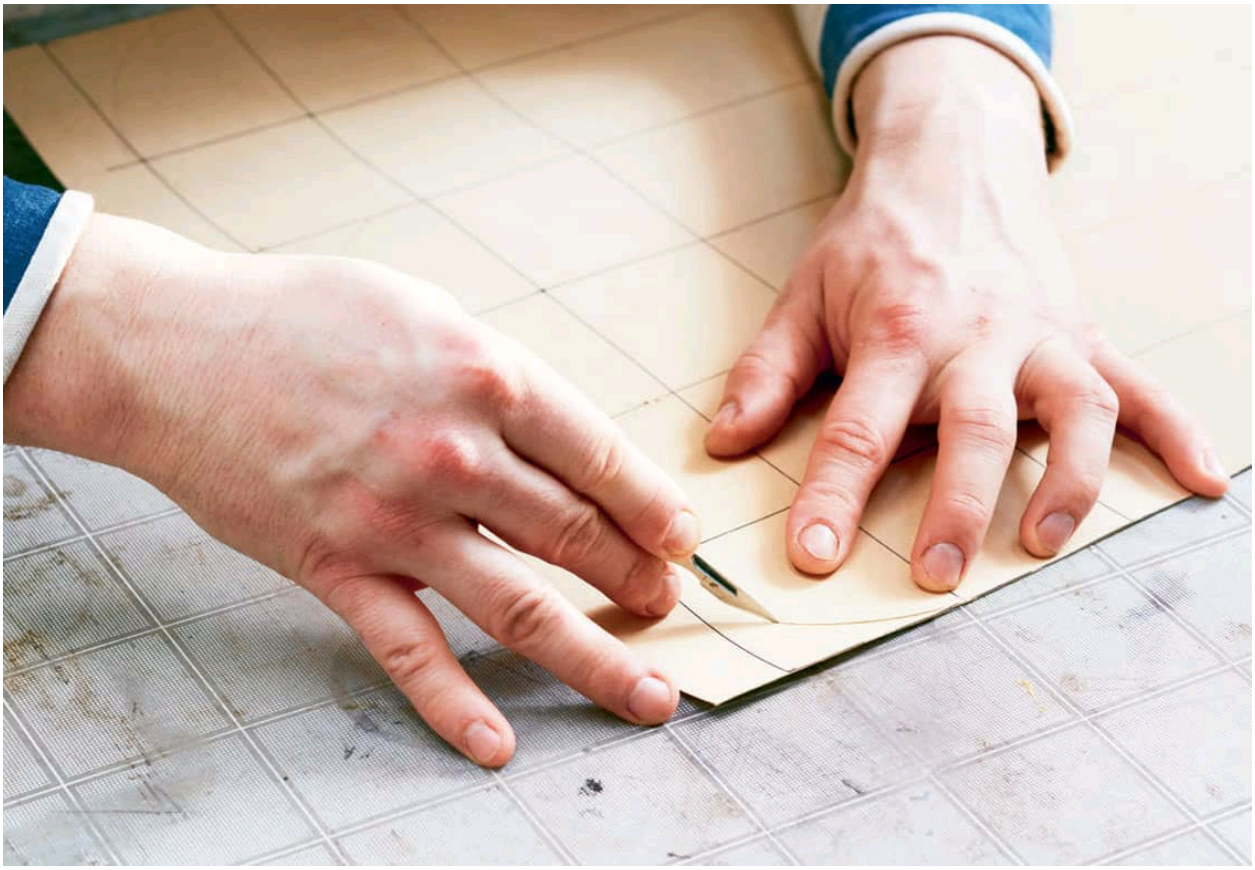
01. Choose card, measure and mark

The card you use for the templates should be fairly close in structure to the leather you wish to use, so that your template behaves as closely as possible to the finished article. Thinner card will bend and flex in a similar way to thinner leather. Make a rough version first to see if the design is workable and has promise. Check it is the correct size and scale. Your final template needs to be accurate and marked in the right places. It is frustrating to make a mark with an awl on leather and then realize it is in the wrong place.

Set your lines out on the card and transfer all the measurements and hole markings accurately, labelling them as you go. Keep the card or paper steady with weights if it is a large piece.

02. Cut template

Use a sharp scalpel to cut the template out, working along a metal ruler for the straight lines and taking care on the corners. Always cut on the outside of the line so any mistakes don’t occur on the template itself. Also remember to cut away from the template at corners. Replace the scalpel blade often: a blunt blade will produce torn edges.



03. Go over lines and fold

Once the template is cut, use a scratch awl or bone folder to go over any fold lines. This will make it easier to work with the template.

04. Find preferred shape

Work with the template to find the angles and shapes you prefer. Use clips or glue to hold in place any moving sections or panels. Identify and highlight any areas you want to change, then make the alterations and repeat until you are satisfied with the outcome. Mark the final position of any rivets or stitching so these marks can also be transferred from the template to the leather.

05. Handle template

Move around the final template and visually check all the aspects to make sure you are happy. See how the template works and whether any openings or pockets fit the objects they are designed to hold or carry. Continue checking until you are confident enough to use the leather.

Stitching

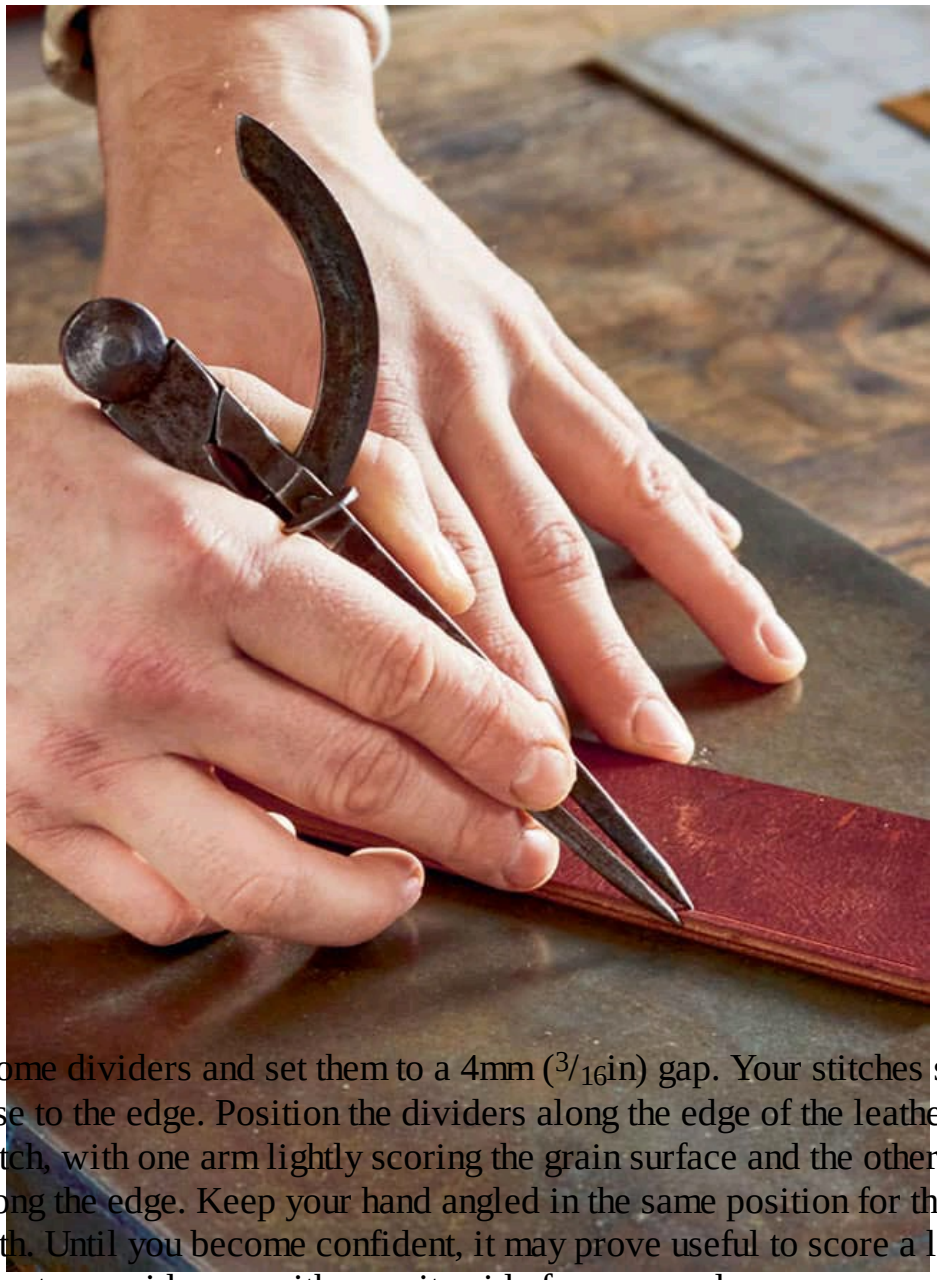
Stitching is one of the most practical and efficient means of construction. Over the years not much has changed in the technique, except for some alterations in the tools used, such as the diamond awl and pricking iron.

Hand-stitching is vastly superior in terms of strength and often visual appeal, but machine-stitching is obviously much, much quicker, and in situations where no great strain is placed upon it, it is perfectly decent. Unlike machine-stitching, a hand-stitch locks each stitch in individually. This means that should it fray or become severed, the rest of the line will not come undone and it can be easily repaired. The thread is also usually thicker and therefore stronger.

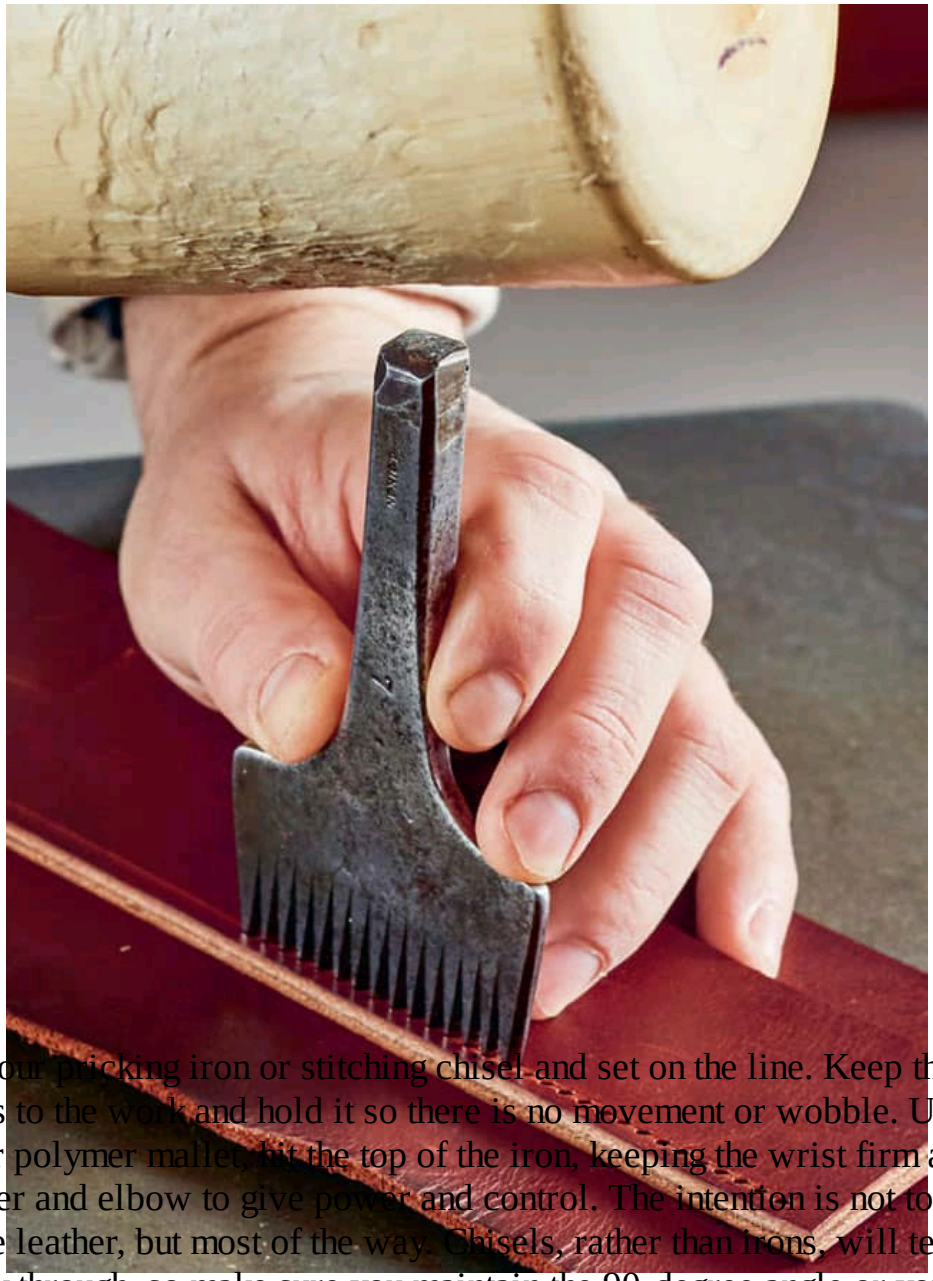
Stitching not only provides real strength to the construction of a piece, when done properly it imbues work with quality, while providing a huge variety of decorative potential. The beauty of good stitching lies in continuity and repetition. Stitches should be the same length and height unless the design demands otherwise. Irregular stitching is easy to spot and always looks bad.

To truly master saddle stitching takes a long time and is an art in itself, but it is really worth the time and energy to get as proficient as possible, because once you learn you will be able to make pretty much anything. The set-up is also minimal and mobile, meaning you can take your leatherwork anywhere with little effort, something that not all crafts are able to offer.

Saddle stitch

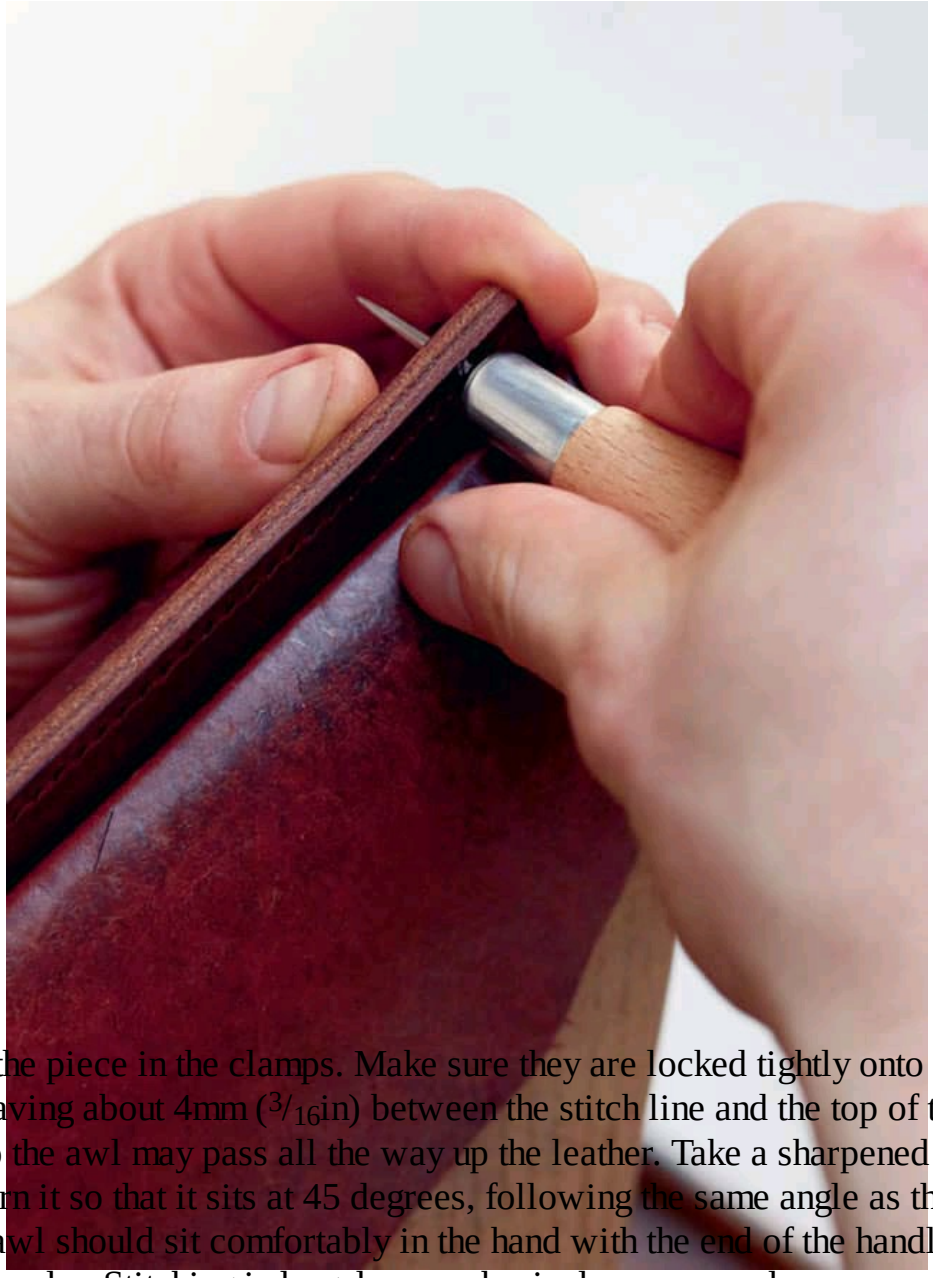


01. Take some dividers and set them to a 4mm ($^{3}/_{16}$in) gap. Your stitches shouldn't be too close to the edge. Position the dividers along the edge of the leather you wish to stitch, with one arm lightly scoring the grain surface and the other arm running along the edge. Keep your hand angled in the same position for the duration of the length. Until you become confident, it may prove useful to score a line on the reverse face to provide you with an exit guide for your awl.

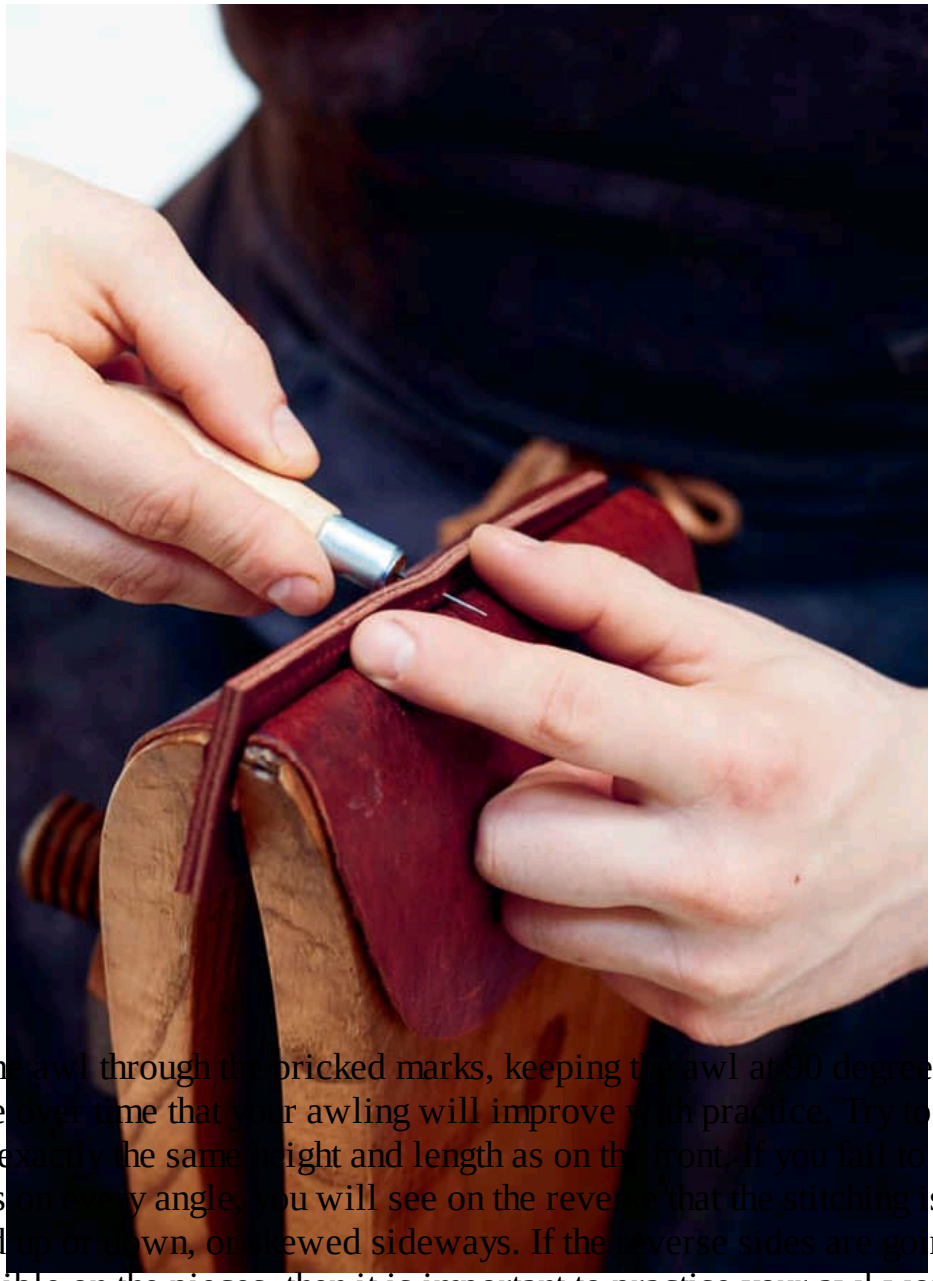


02. Take your pricking iron or stitching chisel and set on the line. Keep the iron at 90 degrees to the work and hold it so there is no movement or wobble. Using a wooden or polymer mallet, hit the top of the iron, keeping the wrist firm and using the shoulder and elbow to give power and control. The intention is not to go fully through the leather, but most of the way. Chisels, rather than irons, will tend to go all the way through, so make sure you maintain the 90-degree angle or your stitching will be askew on the back.

Work down the edge of the piece to the desired length. If you are stitching a curved edge, use a pricking wheel instead, or with heavy leather you can use a two-prong iron or chisel to go round the corners.

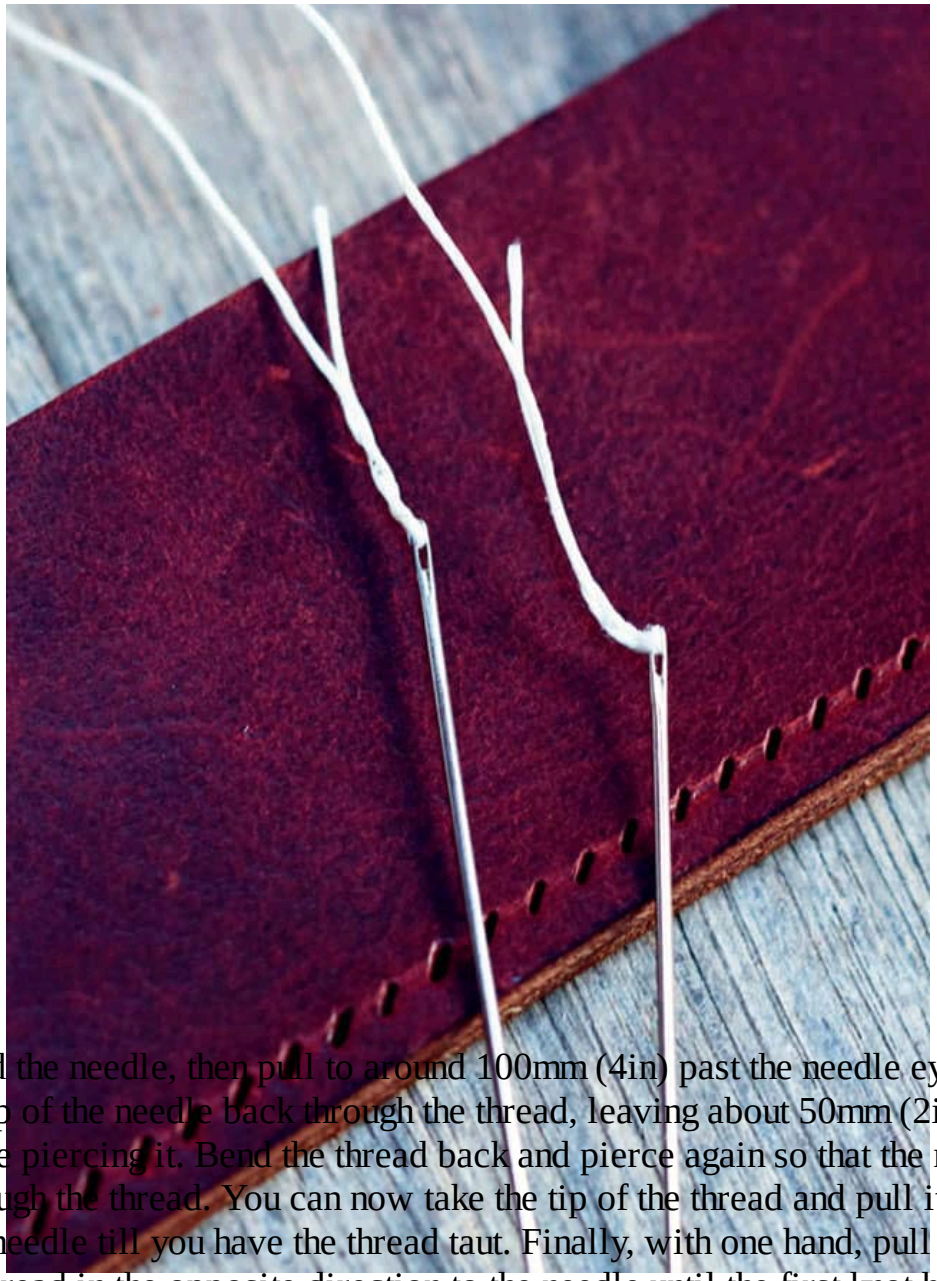


03. Place the piece in the clamps. Make sure they are locked tightly onto the leather, leaving about 4mm ($^{3}/_{16}$in) between the stitch line and the top of the clamps, so the awl may pass all the way up the leather. Take a sharpened diamond awl and turn it so that it sits at 45 degrees, following the same angle as the pricking iron. The awl should sit comfortably in the hand with the end of the handle set against the palm. Stitching is largely a mechanical process and so you must train your body to behave like a sewing machine. It will provide rhythm, however, and with this comes speed and ease. Raise your elbow to the same height as the stitch line, with the forearm set at 90 degrees to the work. The joint from the shoulder to forearm should also be set at 90 degrees. The whole arm needs to move in one motion; this will provide strength and make your awl-work easier.

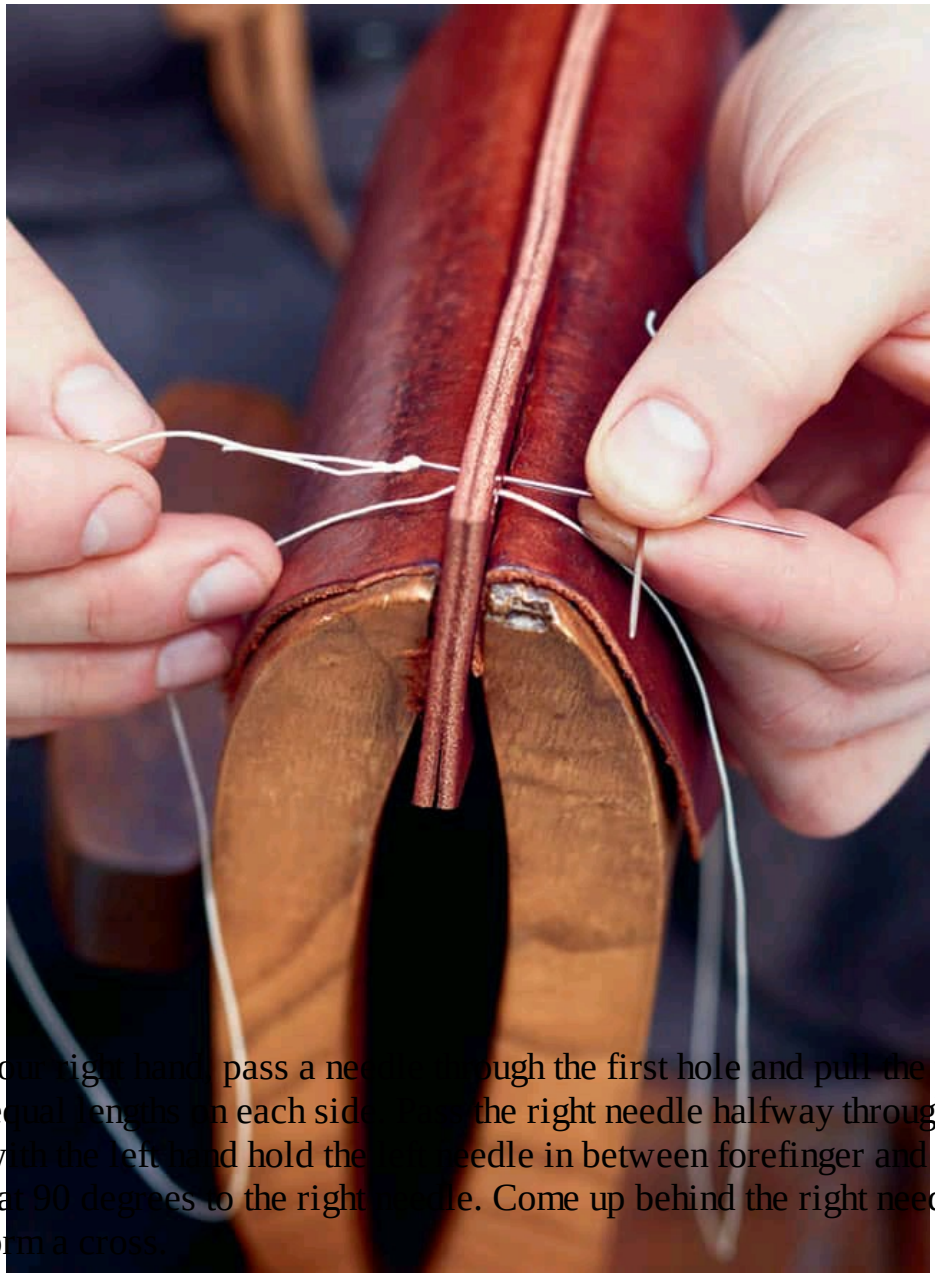


04. Push the awl through the pricked marks, keeping the awl at 90 degrees. You will notice over time that your awling will improve with practice. Try to keep the exit holes exactly the same height and length as on the front. If you fail to keep the 90 degrees on every angle, you will see on the reverse that the stitching is misaligned up or down, or skewed sideways. If the reverse sides are going to be largely visible on the pieces, then it is important to practise your awl work to overcome this. It’s very satisfying when you get it right.

05. Wax your linen thread with beeswax and measure a length that is four to five times that of the stitching. This ratio is based on leather that is 3.5–4mm ($^{1}/_{8}$–$^{3}/_{16}$in) thick. For thinner leather, you can reduce this if you find you have too much excess at the end. If you are stitching long sections, break the work down so that you don't have to handle yards of thread. Try not to stitch more than 60mm (2 $^{1}/_{4}$in) at a time, as it is tiring and the thread will start to wear prematurely.



06. Thread the needle, then pull to around 100mm (4in) past the needle eye. Then pass the tip of the needle back through the thread, leaving about 50mm (2in)at the end, before piercing it. Bend the thread back and pierce again so that the needle is twice through the thread. You can now take the tip of the thread and pull it hard down the needle till you have the thread taut. Finally, with one hand, pull the main piece of thread in the opposite direction to the needle until the first knot hits the eye. You can now do this to the other needle.



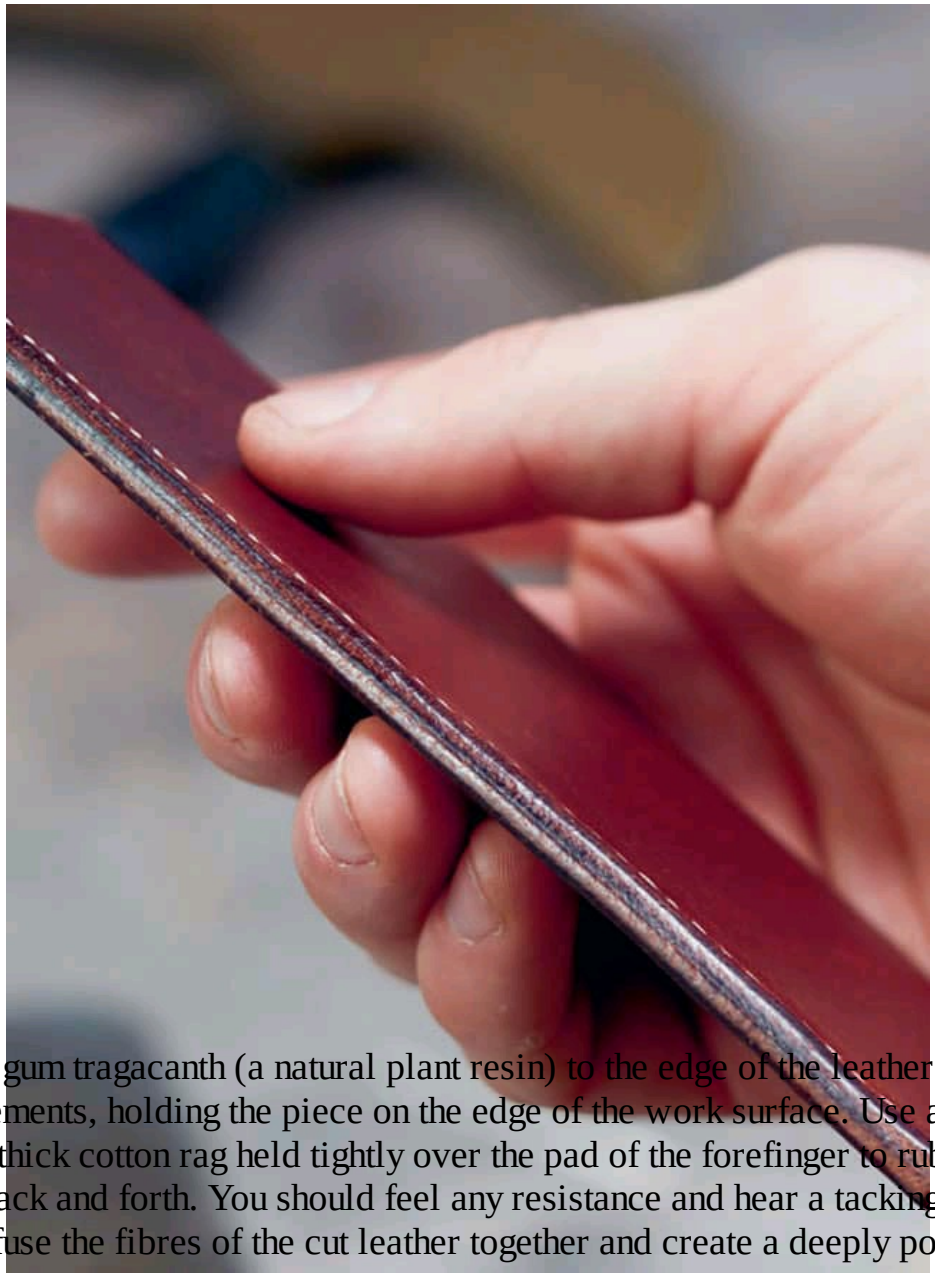
07. With your right hand pass a needle through the first hole and pull the thread so you have equal lengths on each side. Place the right needle halfway through the next hole and with the left hand hold the left needle in between forefinger and thumb vertically at 90 degrees to the right needle. Come up behind the right needle and pinch to form a cross.

08. Pull the right needle through with the left hand, holding both crossed needles, and turn your left hand clockwise 90 degrees. Now pass the left needle behind the thread you have just passed through and pull it with the right hand until halfway through. With the right hand, pull the thread towards you slightly to clear a space for the needle to come through. Take the thread on the right side and, with the same hand, loop the thread over the needle, away from the body – this is called ‘casting’.

09. Pull the needles with both hands up and out, away from the work at 45 degrees and slightly towards you, keeping your hands and arms moving at the same pace. Set the stitch with a final small tug, which you should feel in the thread.

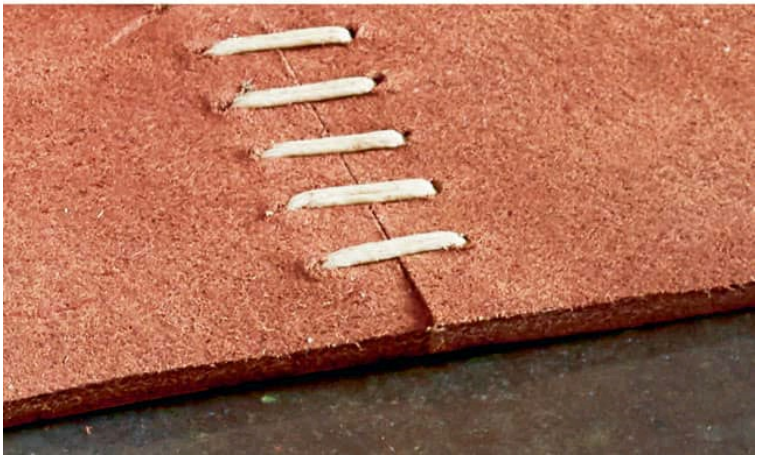
10. Use a hand mallet or flat-faced hammer to tap the stitching. This will help set the stitching in place. Don’t hit too hard, though, or you will risk damaging the thread.

11. Bevel both sides of the leather, holding the piece firmly on the work surface and keeping the bevel at the same 45-degree angle the whole time. Take care on rounded corners. Try to complete the bevel in as few passes as possible for the smoothest results.



12. Apply gum tragacanth (a natural plant resin) to the edge of the leather in 150mm (6in) increments, holding the piece on the edge of the work surface. Use a piece of canvas or thick cotton rag held tightly over the pad of the forefinger to rub against the edge back and forth. You should feel any resistance and hear a tacking noise. This will fuse the fibres of the cut leather together and create a deeply polished edge.

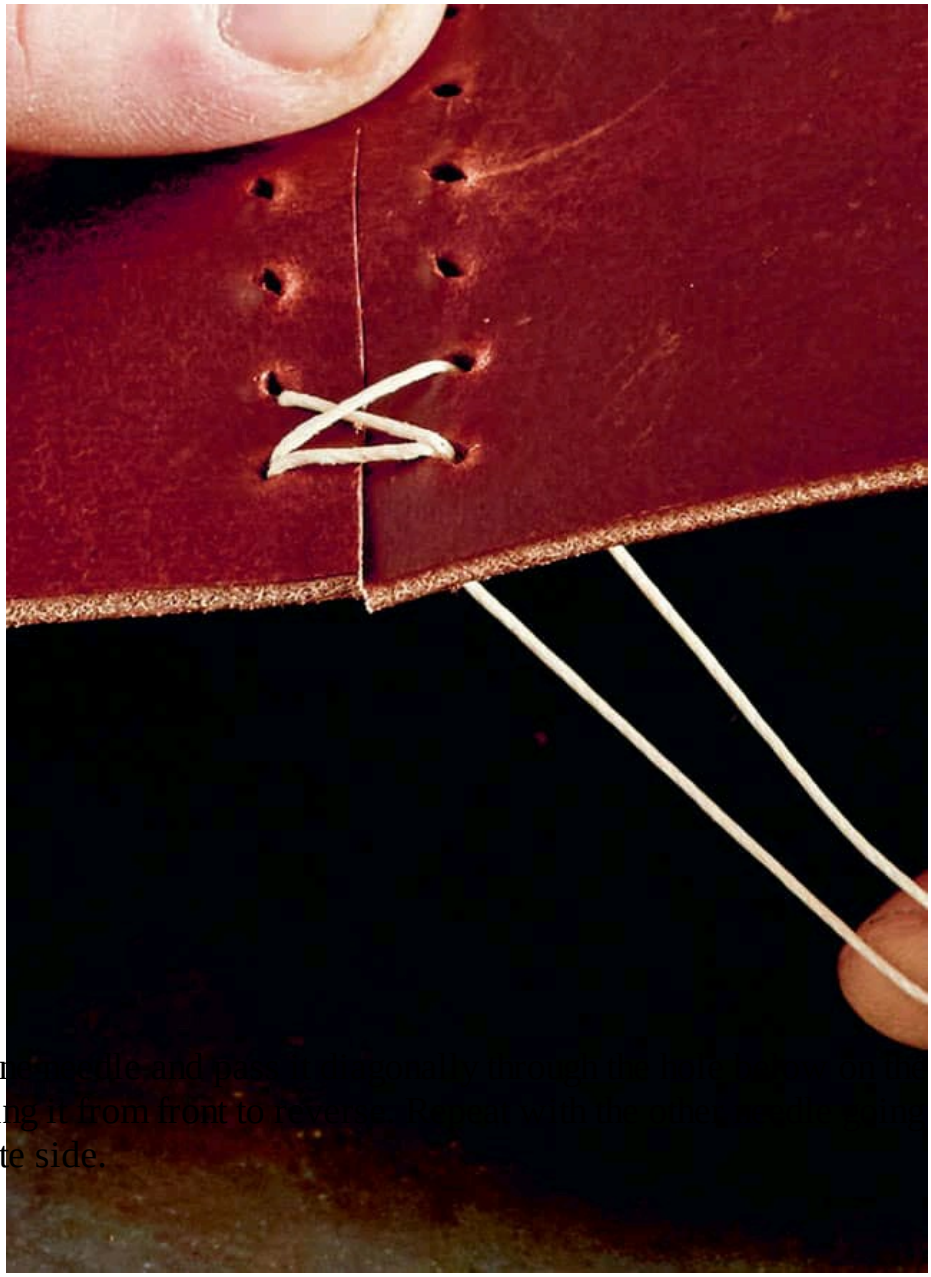
Cross stitch



01. The length of your cross stitch will depend on the thickness of your leather. For leather approximately 2mm ($^{1}/_{16}$in) thick, the distance between each stitch should be around 4mm ($^{3}/_{16}$in). For leather of around 3–4mm ($^{1}/_{8}$–$^{3}/_{16}$in) or more, you can move up to 6–8mm ($^{1}/_{4}$–$^{15}/_{16}$in). Thicker leather will require thicker thread to match. The cross stitch can be reversed (as with the Wastepaper Bin project), so that the crosses are on the inside and the bars are on the outside. In some cases, this can provide great strength.

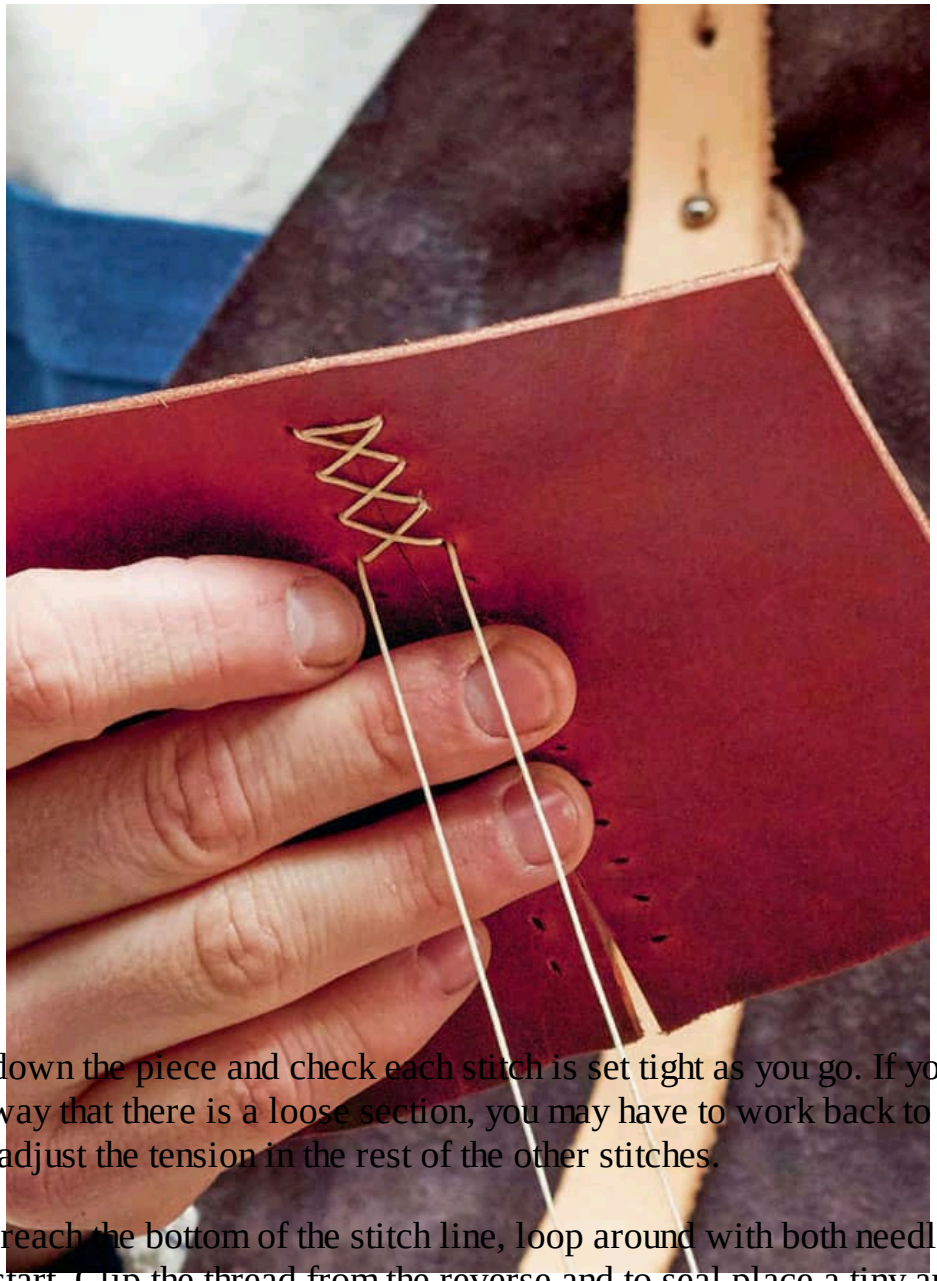
02. Take the two edges of leather that you want to stitch and lay them flat on a surface next to one another. Using a pair of dividers set to 4–8mm ($^{3}/_{16}$–$^{15}/_{16}$in) (depending on thickness), mark along both edges 4mm ($^{3}/_{16}$in) in on each side. Using a round scratch awl, push holes all the way through. Keep the awl at 90 degrees so the holes are equally spaced on the reverse.

03. Wax and thread onto two needles lengths of linen thread at least 8 to 10 times the length of the piece you are going to stitch, depending on the thickness of leather you are using. Pass one needle through the top hole, from the front side and out through the reverse. Pass it round through the opposite hole on the other edge. Repeat to form a loop stitch and pull to set tight. You should now have two threads on the front grain side.



04. Take one needle and pass it diagonally through the hole located on the opposite side, passing it from front to reverse. Repeat with the other needle and run across to the opposite side.

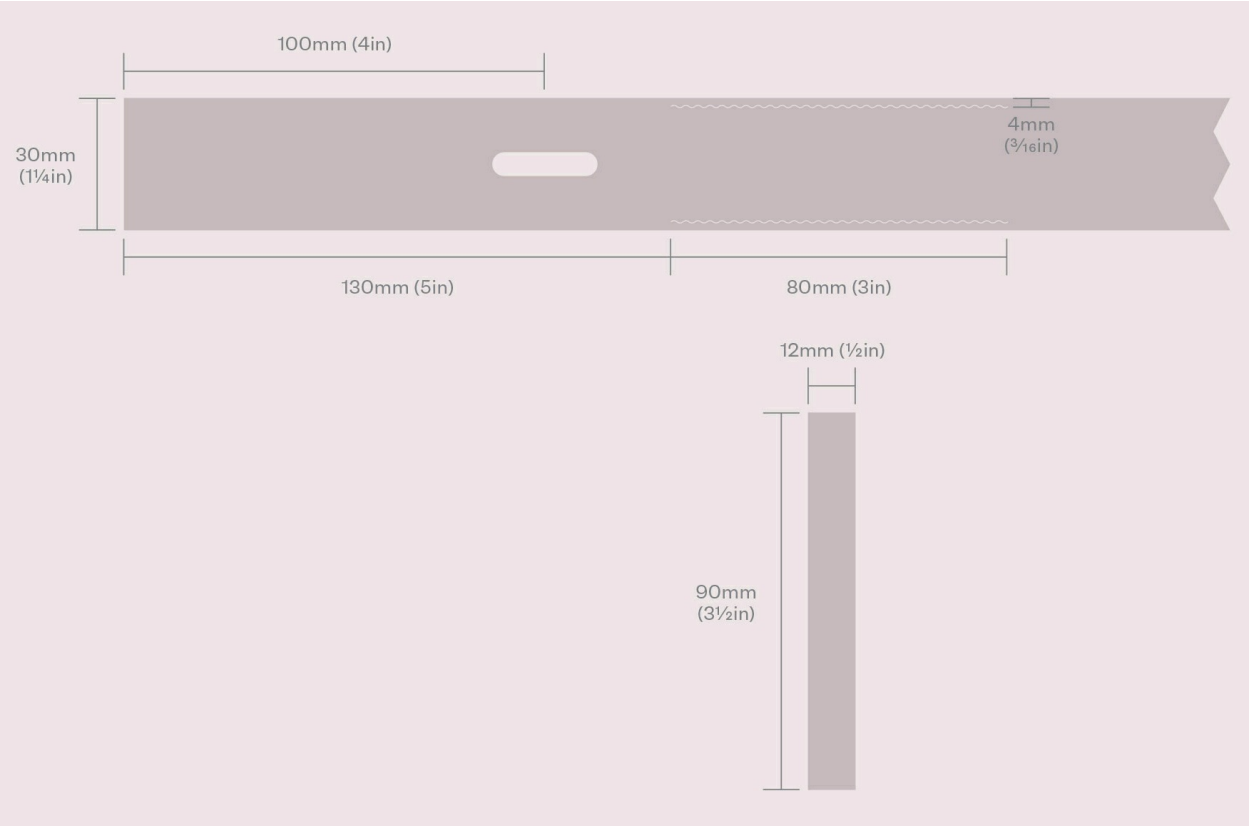
05. Take one of the needles, now on the reverse side, and loop it through the hole directly next to it on the opposite edge, exiting out of the front. Repeat with the other needle and pull both needles to set the stitch tight.



06. Work down the piece and check each stitch is set tight as you go. If you find out along the way that there is a loose section, you may have to work back to that point or slowly adjust the tension in the rest of the other stitches.

When you reach the bottom of the stitch line, loop around with both needles as you did at the start. Clip the thread from the reverse and to seal place a tiny amount of superglue in the stitch from the reverse side.

Belt



To measure the appropriate length of the belt, take one of your existing belts and use the distance from between the base of the buckle, at the very end of the leather (not the base of the buckle itself) to the hole most frequently used. Or, measure your waist and add 50mm (2in), then start at the same point and make this distance your centre hole. Add 150mm (6in) from this centre hole point to calculate the final length. If you are not stitching the whole belt, you could wait until you have finished, then shape the belt tip and place the holes at the end.

The oldest accessory worn on the body, belts have been documented as far back as the Bronze Age. Tanneries developed bridle leather primarily for the equestrian industry, and this type of leather makes the best belts, as it is incredibly strong, hard-wearing and doesn't stretch as much as other leathers. A well-made belt should last years and years. Once you can make belts, then you can add buckles and straps to almost any bag or piece of furniture. Most of the work that goes into a belt is on the edges. It is important to burnish them properly or they will fray quickly. When choosing the buckle, always select a solid-cast or nickel-plated brass one. Hardware is something that should never be bought too cheaply.

Materials

- Card for template
- Bridle leather
- Metal buckle
- Dye (optional)
- Gum tragacanth, beeswax or Irish moss
- Waxed linen thread & needles

Tools

- Strap cutter
- Bevel hand tool, No.1 or No.2
- Swabs
- Skiving knife
- Dividers
- Pricking iron
- Paring knife
- Stitching clamps
- Awl
- Harness needle
- Strap-end punch

01. Cut leather and finish edges

Using the strap cutter, set the width you would like for your belt, making sure you have a buckle of a corresponding width. Draw along one straight edge of the bridle leather, making sure you keep the edge of the cutter to the leather all the way along. Any movement away from the edge will leave wobbles and inconsistencies in the strap width. Using a bevel hand tool, either No.1 or No.2, bevel both long edges along the top and bottom, creating a rounded edge.

If preferred, dye the edge of the leather to a matching tone, using swabs to gently apply the coat. Don’t overload the swabs and brush as lightly as possible. Leave to dry. Using a burnishing cloth, apply gum tragacanth or beeswax to polish the edges to a shine. Try to keep a consistent degree of shine, as this will wear evenly over time. The edges should be completely smooth to the touch.

02. Punch hole

Measure 100mm (4in) from the buckle end and punch a centred 25mm (1in) oblong hole lengthways. Take care when placing the punch that it is dead centre, as any discrepancy will clearly show and the buckle will be ill-fitting.

03. Taper buckle end

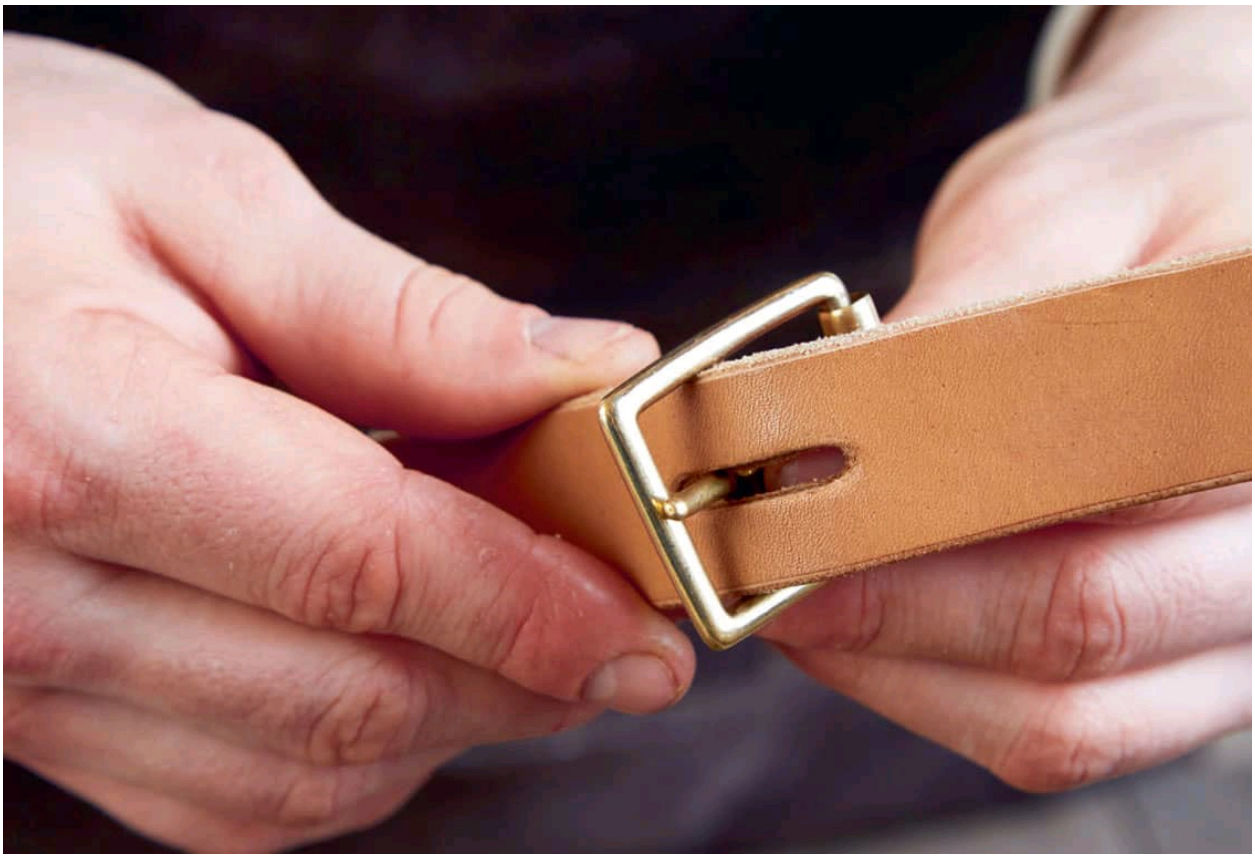
Using a sharp skiving knife, pare the reverse of the leather 130mm (5in) from one end, working backwards and keeping the angle of the blade as shallow as possible, while still able to cut. It is important that you constantly check your angle to prevent the blade coming out of the grain side. It will take several passes before the leather is flexible enough to bend properly. Work backwards from the end in sections rather than attempting to skive the full length in one go. The result should be a tapered section starting from around 3.5–4.5mm ($^1/_8$–$^3/_{16}$in) to an ideal thickness of 1.5–2mm ($^1/_{16}$in) and the leather should easily bend without cracking.

Tip: The skiving knife may try to push through to the grain side, so use a steady, firm-handed action. Always keep your skiving knife sharp, and practise on scraps to master the action.

04. Test buckle

Slide the strap through the buckle from the reverse and slip the buckle stop through the punch slot. Fold the leather around the buckle tightly. Check that your skiving is adequate enough to bend over the buckle bar; if there is even the slightest sign of cracking on the top grain, remove the buckle and skive until it can be bent with ease. This is more necessary with bridle leather. Regular vegetable- or oil-tanned leather is more flexible and will need less skiving.

Tip: If you have a stubborn piece of leather that is particularly hard to bend or skive, you can wet the area you need to bend with a lightly damp cloth on the front and back, then fold until fully folded over the buckle.



05. Prick out stitching holes

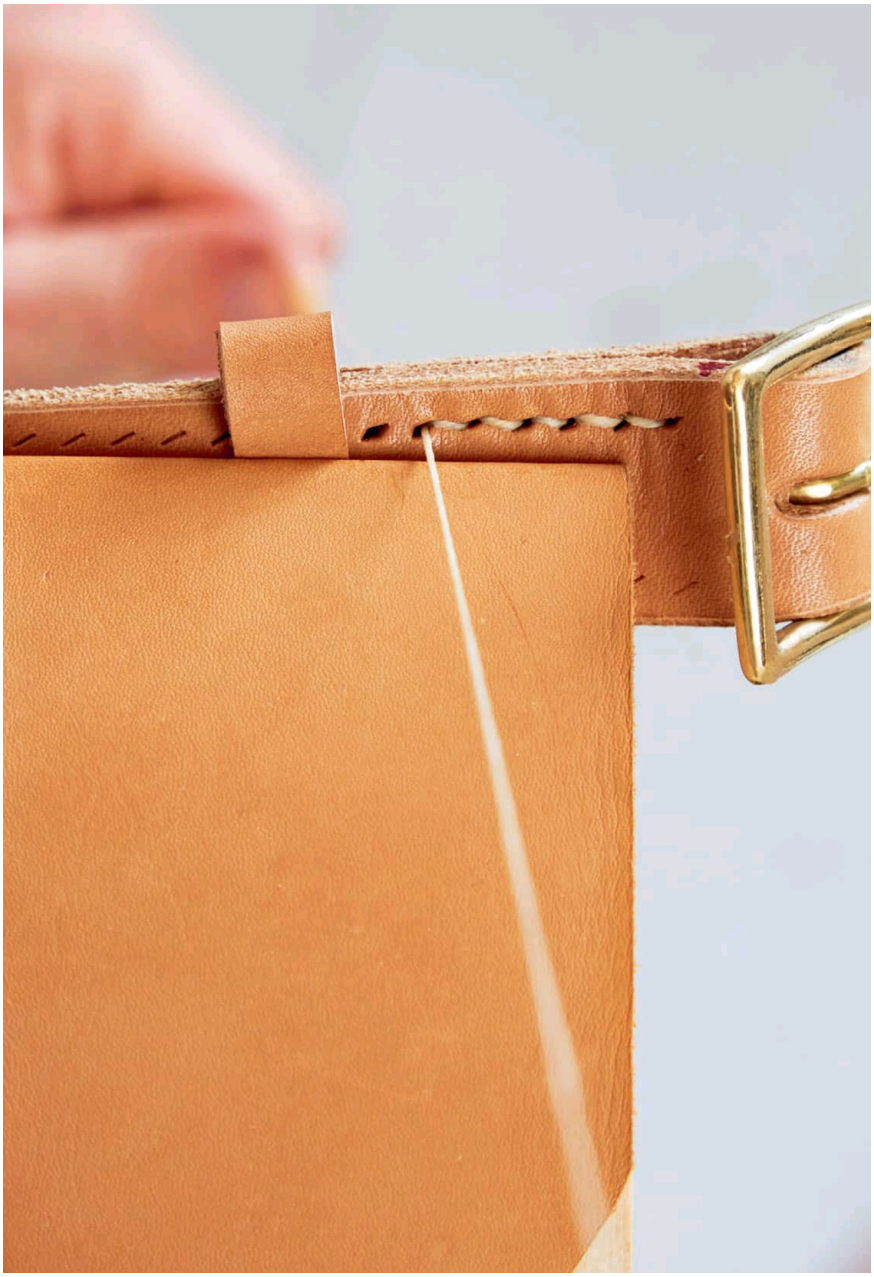
Measure 120mm (4 $^{3}/_{4}$in) from the buckle end and then use the pricking iron to make two lines of stitching roughly 65mm (2 $^{1}/_{2}$in) long. The stitching should sit 4mm ($^{3}/_{16}$in) in from each edge. (If you want an amazing detail and added strength, prick the whole length of the belt and you can stitch this when setting the belt keep loops in.)

06. Make keep loop

Now cut a piece of leather 12mm wide × 90mm ($^1/_2$–3 $^1/_2$in) long for a 32mm (1 $^1/_4$in) belt. (Add an extra 5mm/$^1/_4$in for every 5mm/$^1/_4$in of width.) Skive/pare it down to about 2.5mm ($^1/_{16}$in). Paring evenly takes practice, but once you master the skill, it will be indispensable if you don't have a machine or splitter. Put gum tragacanth or Irish moss on the back of the leather and burnish the edges of the keep loop.

07. Glue loop and buckle

Place the keep loop grain side down. Position it at the far end of the stitch line, leaving one or more stitch marks on the outside. Then glue each end of the keeper loop to 10mm ($^3/_8$in) each end. Now place the ends of the loop about 10mm ($^3/_8$in) in from the edges behind the belt. Glue the skived end in place over the keep loop to secure the buckle. Hammer when the glue is dry. The keep loop must allow another thickness of leather through but remain fairly tight-fitting – it can be easily stretched once the belt is finished by inserting a piece of wood or stacked leather inside.



08. Stitch

Set the belt, with the keep loop protruding from the top, in the stitching clamps. When making the first stitch, loop twice around the first hole. Then proceed along the line, taking care when passing the keep loop. You can awl first then hold in place by using a spare harness needle, before stitching the subsequent holes.

Now turn the belt over, keeping the top grain on the same side. As you stitch this side, make sure the keep loop doesn't move. It will be awkward to stitch, but not for long.

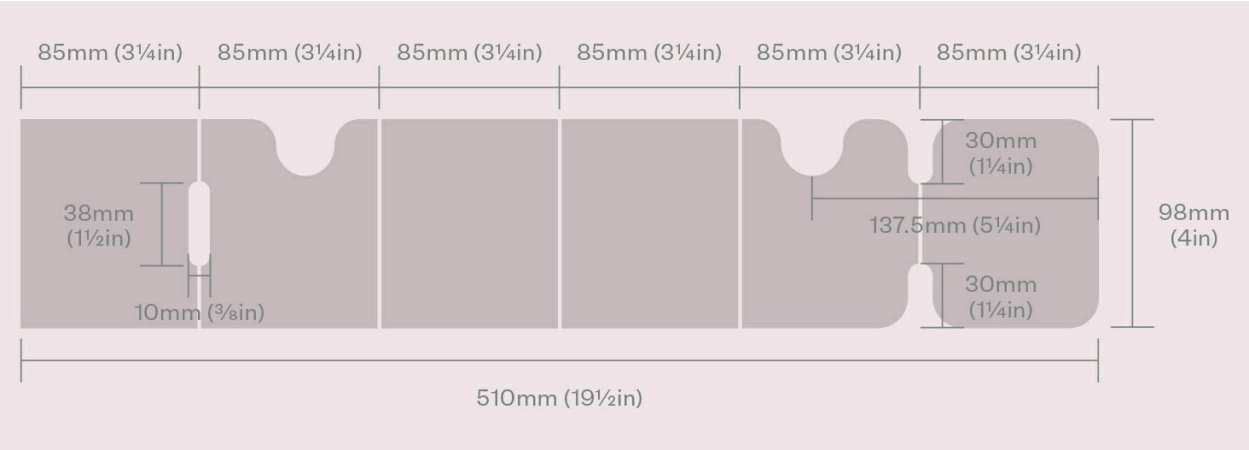
Tip: You can create a running keep loop (a keeper that moves freely along the belt) by cutting a piece of leather 12 × 100mm ($^1/_2$in × 4in). This piece can be skived to 2.5mm ($^1/_{16}$in). Burnish and then awl two or three holes at either end and cross stitch together. The loop can be slid onto the belt.

09. Punch holes and cut end

Take your waist measurements and punch a 5–6mm ($^1/_4$in) hole at this distance from the centre of the oblong hole. Place two holes either side at equal spaces of 25mm (1in). At 150mm (6in) from the centre hole, cut the belt strap.

Cut the non-buckle end with a rounded cutter and burnish the curved edges. If you don't have a curved cutter you can make an English strap end template using a piece of card. Take your dividers and set them to the width of the belt. Keeping one arm still, arc the dividers 90 degrees, scoring a line. Now return to the original position and do this with the other arm. You should have a symmetrical shape. Cut this out and position it at the end of the belt. Cut round it.

Wallet



The iconic folding wallet is a daily essential for most men – often the most commonly used item made from leather that we own. When it's stuffed to the gunnels with paper and plastic remnants, it can resemble a sandwich, but in this day and age we should be able to carry fewer cards and less cash. A classic wallet is a painstaking item to make, usually with many compartments, and this encourages bulking out. The design chosen here is made from only a single piece of leather and can hold six to eight cards maximum, with some room for cash. This interlocking design will ensure you have carefully positioned holes, and the use of folding techniques can transform a two-dimensional plane into a complex three-dimensional one.

Materials

- Card for template
- 5mm ($^1/_4$in) leather – preferably stiffer vegetable-tanned leather, bridle (split down) leather or shell cordovan
- Waxed linen thread & needles
- Contact adhesive
- Gum tragacanth or edge coat

Tools

- Scalpel or clicking knife
- Bevel hand tool, No.1 or No.2
- 25mm (1in) hole punch (or large coin to cut around)
- Bone folder

- 5–6mm ($^1/_4$in) double-sided tape
- Pricking iron or chisel
- Bulldog clips
- Hammer
- Compass
- Stitching clamps

01. Cut out shape

Create a cardboard template according to the diagram. Fold it into the wallet shape to make sure you have all the measurements correct. It should fold into thirds then sixths and stay shut, with no tearing on the cut-out slots. Unfold it and lay it out on your leather, trace and then cut, being careful to keep the blade upright and not angled to produce a clean, straight edge. Take special care on the corners. Bevel and burnish the edges and place the leather so the grain side is facing down.

02. Mark and fold

Mark at 100mm (4in) in from each end along the top edge. At 5mm ($^1/_4$in) inset from these points, run a line with an awl directly down to the bottom edge, stopping 9mm ($^3/_8$ in) short. The length of the lines should be about 85mm (3 $^1/_4$in). These will be lines for stitching. Turn the leather over and gently fold and pinch the top and bottom sides of the end with the two cut-outs top and bottom. Take the pinched end and pass it through the oblong hole in the other end. Flatten out and run a bone folder over the end folds, not pressing too hard, to encourage a neat tuck-in. Take a spare piece of leather and pass it through the wallet, under the top two layers, in between the main compartment and the pockets.

03. Stitch interior

Use a pricking iron or stitching chisel and prick the front two lines of 85mm (3 $^{1}/_{4}$in). You may want to use bulldog clips to keep the leather still. Make sure you don't prick too hard, just enough to mark the two front layers; you don't want to go through the back of the wallet. Take two bulldog clips and clamp the front two faces of leather together in an area where you will be able to access the stitching. Wax some linen thread and clamp the wallet so you can access the interior. Stitch the two verticals you have just pricked. Tap the stitiching when done.

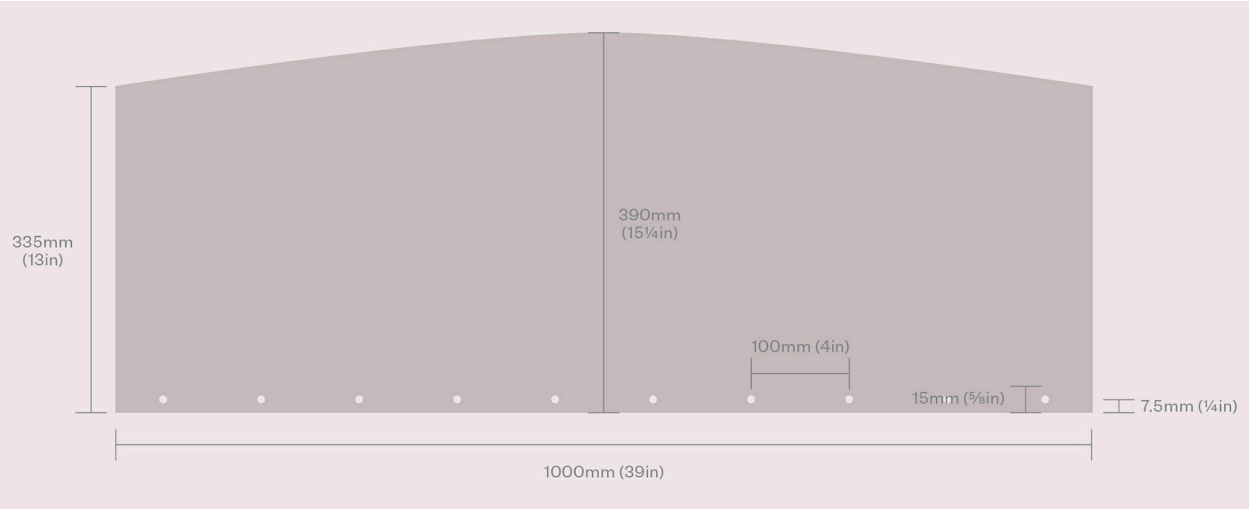
04. Mark stitches

Use 5–6mm ($^1/_4$in) double-sided tape or glue inside the bottom edges, leaving a gap of around 20mm ($^3/_4$in) in the middle, then press and tap with a hammer to ensure adhesion. All edges must be flush on the bottom so use both hands to press them evenly together. Turn the wallet on its back. Set a compass divider to 5mm ($^1/_4$in) and, starting on the bottom edge, measure from 5mm ($^1/_4$in) inset on either end, and score lines of 65mm (2 $^1/_2$in) in length. Take the pricking iron and punch the marks onto the wallet. Take care the wallet is held steady and the pricking iron runs along the line.

05. Stitch

Set into the clamp and stitch, stitching back twice to lock in the stitching. Hammer gently. Now take the wallet and fold it in half, working it so that the two inside compartments sit well inside the wallet. It may seem stiff at first but will soon soften up.

Wastepaper bin



It is often hard to find certain objects for your house that aren't made of plastic and shiny metal, or that work well in a number of environments. Wastepaper bins generally fall into this category. Many buckets and baskets used to be made out of heavy leather between the 18th and 19th centuries. The construction technique for this wastepaper bin can easily be substituted for that of the Log basket (see here). Both are cylinders with wooden bases, and you can either use the brass-slotted screws or stitch the inner band underneath the base. Choose a good hardwood as the base adds weight, and the wooden grain adds a great look and feel. (You can buy ready-made wood turning blanks from woodworking shops and online.) You should be able to make three with a large shoulder of leather. Use a stiffer leather for this to maintain the structure. These bins are perfect for an office or a studio, bedroom or bathroom. Black leather with walnut works well, as does russet or tan leather with oak or ash.

Materials

- Card for template
- Timber board 25mm (1in) thick, or a ready-made wood-turning blank 200–300mm (7 $^{3}/_{4}$–12in) in diameter
- Shoulder of thick vegetable-tanned leather
- Brass loop or handle (optional)
- Contact adhesive
- Slotted brass screws
- Heavy waxed linen thread & needles

Tools

- Strap cutter
- Coin or thread spool
- Bevel hand tool
- Burnisher
- Awl
- Hole punch
- Sandpaper
- Hammer or roller
- Hand drill with a 3mm ($^{1}/_{8}$in) bit
- Flat-head screwdriver


WESTMINSTER

01. Cut template

Cut a 20mm ($^3/_4$in) strip of leather with a strap cutter. Run it around the circumference of your baseboard, trimming it so that the two ends meet – make sure you are not stretching the leather and that the strip touches the wood all the way around at the same height. Take this measurement as your width and transfer it to card. Make a template according to the diagram. To create a curved edge, use a trammel compass or make a long compass arm from thick card or thin wood and use a pen or pencil attached to draw a long shallow arc, starting at the midway point, from one side to the other. The difference in height shouldn't be more than 100mm (4in) from the arc to the top of the centre. Round off the top corners, using a large coin or thread spool. (Alternatively, you can keep the corners so they join flush.) Mark all screw positions and stitching lines on the template.

02. Transfer marks to leather

To mark the screw positions along the base, draw a line along the bottom edge, 10mm ($^3/_8$in) inset from the edge. Take the measurement for the circumference and divide by 10. Remember to split the distance across each end; if your screw holes are 100mm (4in) apart from each other, start 50mm (2in) in from the side you are starting from. Draw a line down the left and right side, inset to 5mm ($^1/_4$in). Start 15mm ($^5/_8$in) from the bottom on both sides and mark points every 10mm ($^3/_8$in), stopping 10mm ($^3/_8$in) short of the bottom of each rounded shoulder. Awl the holes. Take the template and transfer all the markings to the leather. Make sure the grain is regular and tight, as it will stretch if at all soft and slack. Bevel both edges of the top side, then only the front edges of the left, right and bottom sides. Burnish all the edges. Punch the holes with a 4mm ($^3/_{16}$in) hole punch.

03. Prepare base

Make sure the wood has been planed and sanded smooth on all sides. Mask the bottom 10mm ($^{3}/_{8}$in), leaving roughly 15mm ($^{5}/_{8}$in) for the leather to be attached. Using contact adhesive, glue the unmasked rim of the disc. Take the leather, grain side face down, and mask along the bottom side, leaving a gap of 15mm ($^{5}/_{8}$in) below the tape to the edge. Remove any finish on the back with sandpaper, and glue along the unmasked area.

Tip: If you would like to add a handle or brass loop of some sort, attach it at this stage, as it is easiest when flat. Take care over your placement and fitting.

04. Align base and leather

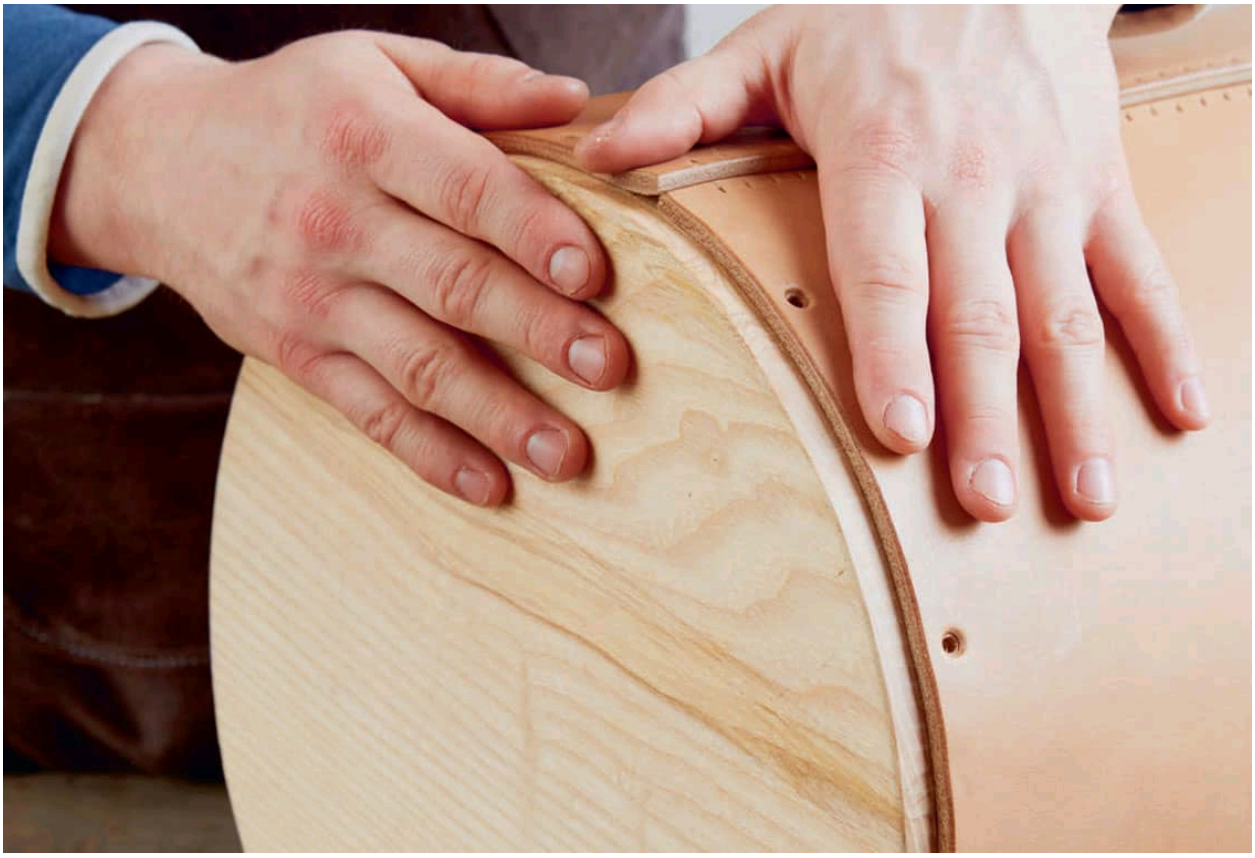
Take the disc on its side and align the glued section of the base with the glued section of the leather inside, making sure to keep the edges of the wood and leather perpendicular. Try to keep the bottom pair of awl holes just above the top face of the base; this will allow for easier stitching at the end.

05. Work leather around base

Slowly and carefully work the leather around the base, making sure not to pull on the leather or stretch it, until you are about 50mm (2in) from the end.

06. Finish setting and alignment

Take the free unset edge and butt it right up against the first set edge. You can now press the remaining leather in place. Check you have no bulges anywhere. If you do, try to wrest the leather gently from the wood and reset. Once you are happy with the placement, use a leather-working hammer or roller to go over the leather at the glued section.

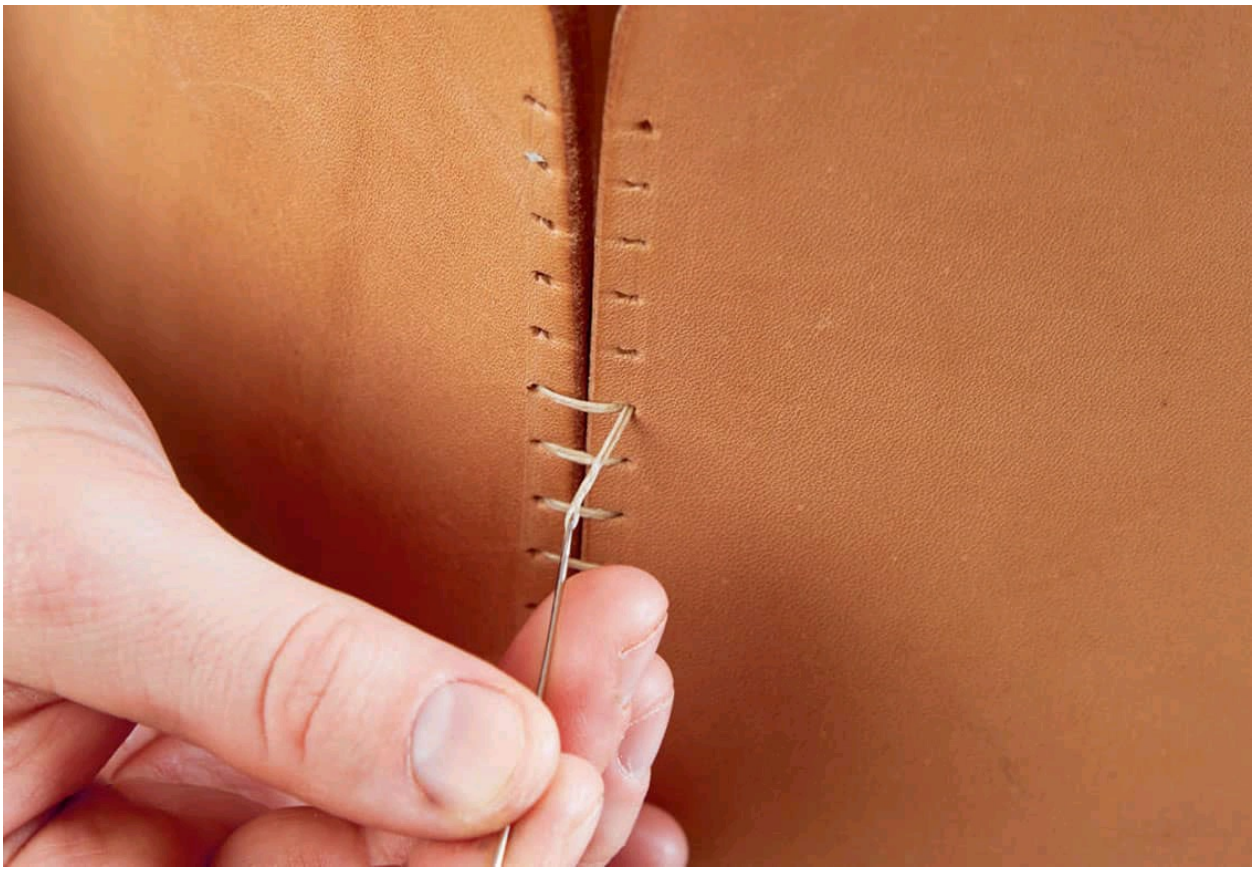


05. Attach leather

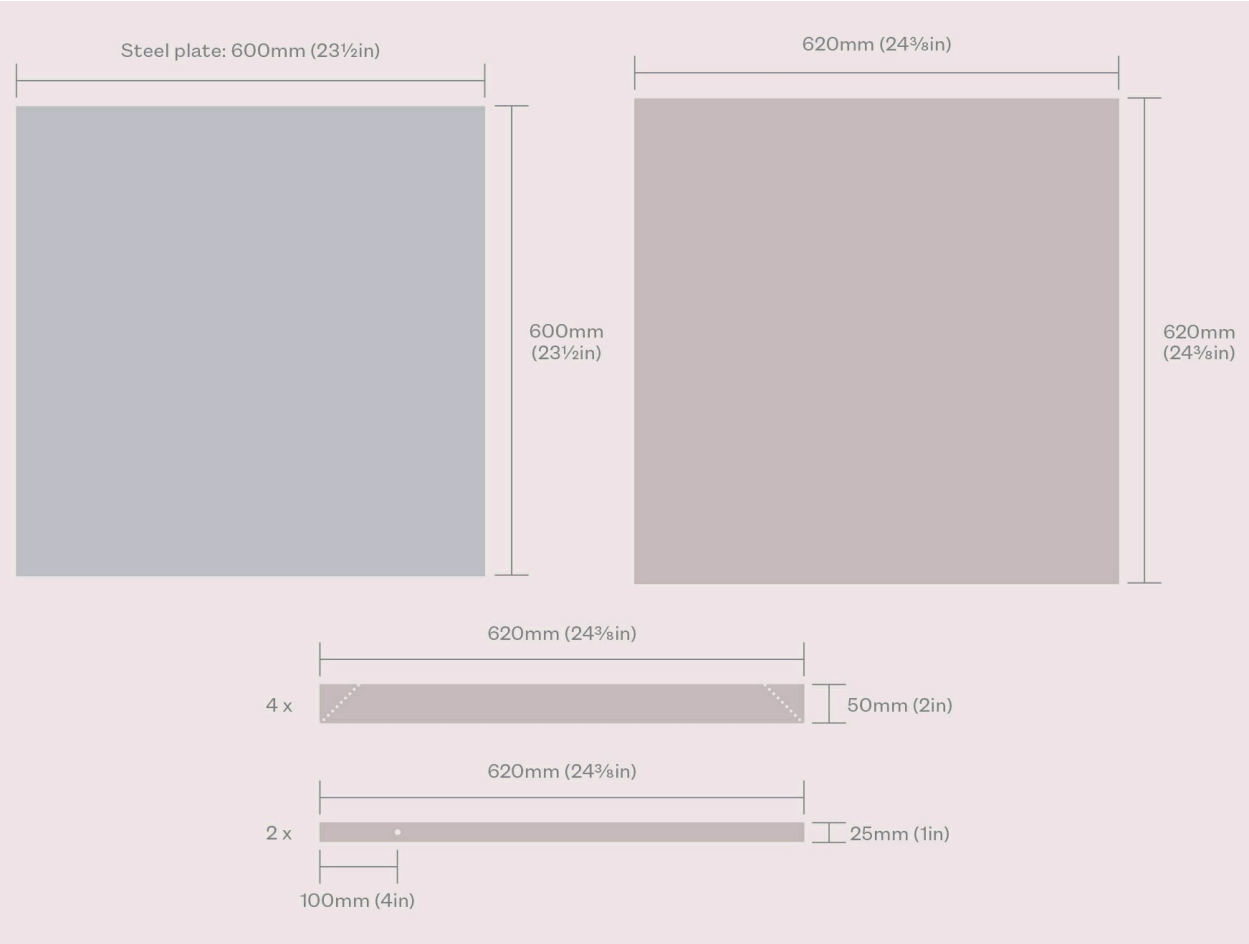
Place the bin on its side. Take a hand drill and carefully put holes with a 3mm ($^1/_8$in) bit through the base holes in the leather. Hold the drill at 90 degrees to the leather. You only want to drill to a depth of about 15–20mm ($^5/_8$–$^3/_4$in). Keep the bin in place while drilling, allowing for no rolling. Using a flat-head screwdriver, insert the slotted brass screws into the base, aligning them horizontally to finish.

06. Cross stitch side opening

Take some heavy waxed linen thread and use the cross-stitching method, but this time reversing the cross stitch so that the loops appear on the front and the crosses on the back. Work down the piece until you reach the bottom pair of awl holes, which should be almost exactly in line with the top of the base. Tie off and clip.



Magnetic notice board



Notice boards are a wonderful addition to a functioning space, such as an office, studio or kitchen. This leather-covered magnetic version provides an elegant alternative to an object that usually looks rather crude. The hand-stitched edges provide a sophisticated detail that sits really well alongside a full-grained leather. You can make a series of smaller boards from larger size offcuts or create this larger one from a single panel if you have the wall space – you may want to order a custom-sized piece of steel to fit a certain wall space or a specific, special piece of leather you want to use. This notice board is incredibly satisfying to use – the leather tab magnets pop on and off soundlessly, and can hold a lot of paper in between the surfaces.

Materials

• A sheet of steel or any other magnetic metal, 600 × 600mm (23 $^{1}/_{2}$ × 23 $^{1}/_{2}$in) square

- Shoulder of good-quality leather, preferably with nice surface grain
- Waxed linen thread & needles
- Glue
- 10 round magnets
- Gum tragacanth
- Contact adhesive

Tools

- Round knife or scalpel
- Roller
- Compass dividers
- Hole punch set
- Diamond awl
- Bone folder
- Bevel hand tool
- Burnisher
- Metal ruler and right angle ruler

01. Cut and apply leather to steel backing

Sand the edges of the steel to remove burrs and wipe the surfaces clean of rust and any dirt. Cut your leather 10mm ($^3/_8$in) bigger on all sides than the metal sheet, so in this case it would be 620mm (24 $^3/_8$in) square. Turn the leather grain side down and centre the steel on top. Trace around the edges then remove and glue one face of the steel and the reverse of the leather within the outline. Once the contact adhesive is dry, carefully set the steel down on the leather then turn it over and roll evenly with a rubber roller. Set aside and now start working on the reverse of the frame.

02. Mitre ends of straps and score

Cut straps that are 50 × 620mm (2 × 24 $^{3}/_{8}$in) long or equal to the length of your leather. Cut a 45-degree angle on the end of each strap, with opposite cuts at each end. They should come together perfectly to form a mitred square when done. Score the 45-degree angle with compass dividers to a depth of 4–5mm ($^{3}/_{16}$–$^{1}/_{4}$in). Start 9mm ($^{3}/_{8}$in) in from each corner to leave room for the saddle stitching and trimming, then mark down these lines at 5mm ($^{1}/_{4}$in) increments.

03. Stitch straps and glue to board

Awl each hole and start to cross stitch each pair of angled strap ends, starting at the outermost point and work inwards. Repeat on the other three strap pairs. Once you have stitched the back four pieces, place them face down and glue the outer edges to a depth of 20mm ($^3/_4$in).

Glue the outer edges of the reverse of the notice board to a depth of 20mm ($^3/_4$in) – the 10mm ($^3/_8$in) leather rim and 10mm ($^3/_8$in) of the steel edges. Carefully lay the straps onto the reverse of the notice board and use your hands to keep the leather edges flush. Use a roller or mallet to fix the glue.

04. Attach back hanging straps and stitch edge

Now cut some straps at 25 × 620mm (1 × 24 $^{3}/_{8}$in). This leather should not be loose or stretchy; it should have tight grain. If you have any thick belting or bridle leather, use this. Otherwise use what you have; you can glue two strips together on the reverse sides to increase strength. Stretch the straps as much as you can to get any elasticity out of them then trim back to 620mm (24 $^{3}/_{8}$in). Glue the ends to a depth of 10mm ($^{3}/_{8}$in) and place them at 200mm (7 $^{3}/_{4}$in), or at intervals of a third on the reverse, running from top to bottom.

Turn the notice board over and prick the stitch line around the periphery, staying close to the edge of the steel. Fix the notice board on its side and saddle stitch around the edge. Pay close attention when awling and stitching through the back straps.

05. Bevel and burnish edges

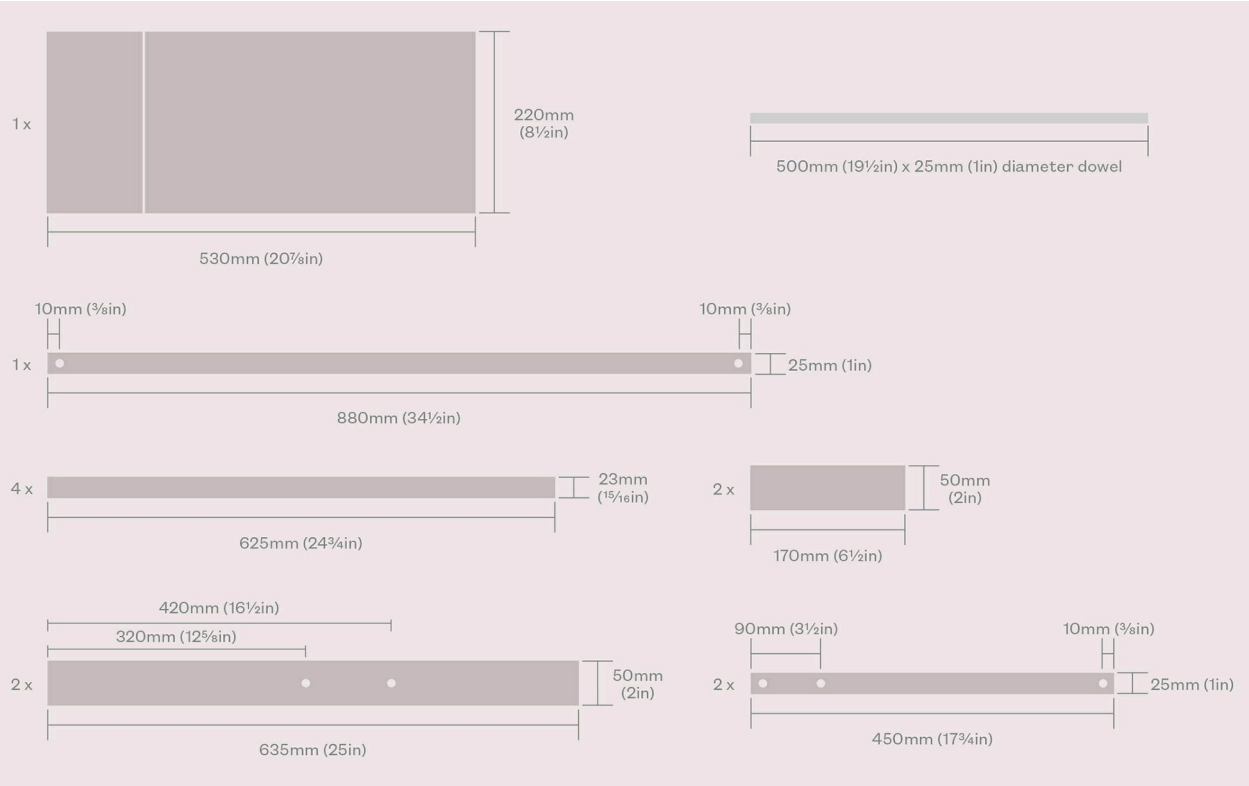
Trim the excess leather outside of the stitched edges, leaving 4–5mm ($^{3}/_{16}$–$^{1}/_{4}$in) if possible. Bevel and burnish the edges and run a bone folder over the top stitching to set it in firmly.

06. Cut and glue tabs

To make the magnetic tabs, cut some strips of leather that are 10mm ($^3/_8$in) wider than your magnets and 150mm (6in) long. Use an appropriate bottle cap as a guide to round the edges. Bevel the edges but don't burnish yet.

Glue the reverse of the strips at both ends to a depth that is 10mm ($^3/_8$mm) greater than the diameter of your magnets. Place the magnet onto one of the rounded and glued ends and fold over. Use a bone folder on both sides to press together the rims of the leather around the magnet. When completely set, apply gum tragacanth and burnish the edges on all the tabs.

Hanging mirror



Based on the classic Jacques Adnet mirror from the 1950s, this circular hanging mirror sits well in a hallway, kitchen or bathroom. It is a multifunctional piece that doesn't take up much space. The deep leather frame provides a lovely contrast to the mirrored surface, and the many colours available for leathers now mean there are endless options for interior palettes. The hanging pocket is particularly useful for post or items such as wallets, and the hooks are great for hats or keys. Use a contrasting leather for the pocket to add colour and texture.

Materials

- 25mm (1in) wooden dowel
- Bridle or other thick leather, 3–5mm ($^1/_8$–$^1/_4$in) thick
- 2mm ($^1/_{16}$in) thick leather or suede
- 400mm (15 $^3/_4$in) glass or acrylic mirror
- Waxed linen thread & needles
- Copper rivets
- Brass hooks

- Contact adhesive
- Gum tragacanth or leather edge coat

Tools

- Strap cutter
- Round knife
- Hole punch set
- Mallet
- Strap-end punch
- Awl
- Rivet setting tool
- Bolt clippers

01. Cut wide straps and short straps

Using a strap cutter, cut out two strips of leather measuring 50mm (2in) wide. Trim them to 635mm (25in). Punch holes in these straps, one at 320mm (12 $^{5}/_{8}$in) and one at 420mm (16 $^{1}/_{2}$in) along the centre. Use a 4mm ($^{3}/_{16}$in) hole punch.

Next, cut four straps 23mm ($^{15}/_{16}$in) wide. Trim them to 625mm (24 $^{3}/_{4}$in). Place these end to end, with the holes punched at 320mm (12 $^{5}/_{8}$in) furthest away from the centre. Use a compass to gently score a line 4mm ($^{3}/_{16}$in) deep along both short edges.

02. Mark thread holes

Mark along both lines at 4mm ($^{3}/_{16}$in) increments and awl at each point. Cross stitch using a waxed linen thread. Now do the same to the other ends, so you end up with a continuous band with two cross-stitched joins.

03. Glue inner straps to band

First, you should do a dry fit with no glue. Take two 625mm (24 $^{3}/_{4}$in) straps and place them end to end on the inside face of the body of the mirror with the grain facing outwards. The seams should be fitted in line with those of the outer straps on the top and bottom. The edges of the straps should remain flush with the outer rim of the body. They should fit snugly with no gaps in between. There should be just enough space to get a rivet washer around the holes on the inside of the body, about 3–4mm ($^{1}/_{8}$–$^{3}/_{16}$in). Once this dry run has been tested, glue the reverse of the straps and the inside of the mirror body. Fit the straps and use a mallet to hammer the contact adhesive.

04. Cut hanging strap and attach to outer band

To make the hanging strap, cut a 25mm (1in) strap and trim to 890mm (35in) long. Round the ends with a rap punch or scalpel. Punch a hole 10mm ($^3/_8$in) in from each end using a 4mm ($^3/_{16}$in) hole punch. Attach these ends to the holes made at 420mm (16 $^1/_2$in) in the circular frame.

05. Cut dowel straps and attach to outer band

Cut two straps that are 450mm (17 $^{3}/_{4}$in) long. Punch holes at 10mm ($^{3}/_{8}$in) in from each end using a 4mm ($^{3}/_{16}$in) hole punch. At one of the ends, punch a hole that is 90mm (3 $^{1}/_{2}$in) in from the end of the strap. Fold these ends and rivet them. They should accommodate a 25mm (1in) piece of doweling.

Attach the other ends to the body of the mirror with copper rivets – corresponding to the holes made at 320mm (12 $^{5}/_{8}$in). Make sure they are pointing in the same direction, hanging downwards, for when the mirror is hung. The straps should sit exactly opposite each other.

06. Set in mirror and fit inner rim

Your mirror frame should be taking shape and have some structure at this point. Lay it flat on a surface and place the mirror face up in the leather frame. Having glued the straps previously along with the inside, place the remaining straps inside the mirror and use a bone folder to press the straps and fix the glue. Keep the edges flush – if you have any overhang from these inner straps, trim them back flush with the outer frame straps.

07. Make pocket

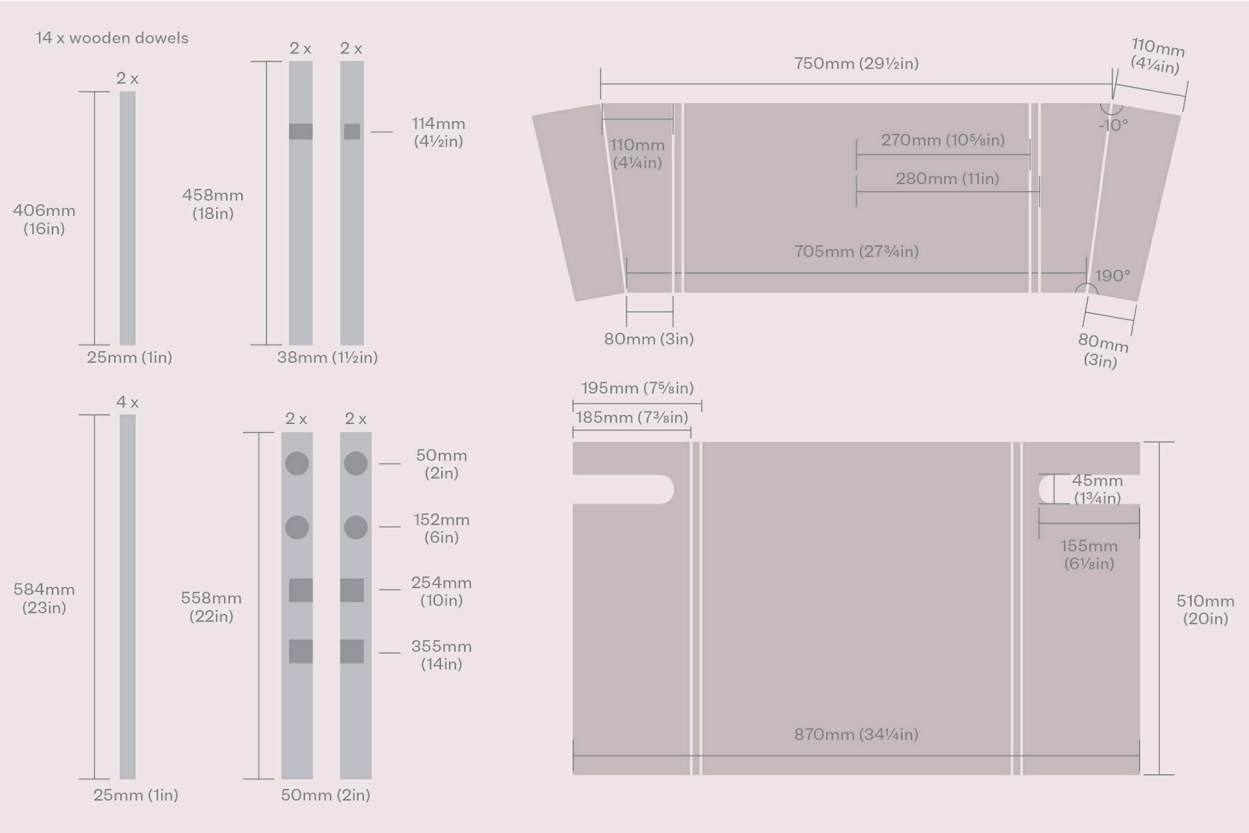
To make the pocket, cut a rectangle of leather or suede measuring 530mm long × 220mm wide (20 $^{7}/_{8}$ × 8 $^{1}/_{2}$in). To make the sleeved top section, place the leather reverse side up, mark a line from one side of the length to the other at 120mm (4 $^{3}/_{4}$in). Glue along the furthest edge to a depth of 10mm ($^{3}/_{8}$in). Now glue along the inside of the line at 120mm (4 $^{3}/_{4}$in) and fold the far edge over to this point. Hammer to set the glue, then prick and stitch this fold along the top edge. Cut two pocket gussets measuring 50 × 170mm (2 × 6 $^{1}/_{2}$in). Put them face down and glue along the long edges to a depth of 6mm ($^{1}/_{4}$in). Keep the pocket body reverse side up. Starting from the edge of the opposite end, mark points at 170mm (6 $^{1}/_{2}$in) and 240mm (9 $^{1}/_{2}$in) along the length, working backwards towards the sleeve. Glue along the edges to the 170mm (6 $^{1}/_{2}$in) mark and then leave a 70mm (2 $^{3}/_{4}$in) gap, before gluing from 240mm (9 $^{1}/_{2}$in) to the bottom of the pocket sleeve. Attach the sides, hammer, prick and stitch the gussets into place.

08. Thread dowel

Make sure your hooks correspond to your dowel size, attach up to four to the wood and then slide the dowel through the pocket sleeve. Slide each end of the dowel through the hanging side straps and hang on a wall.

Tip: For added elegance, you can take an offcut of doweling and drill a 8–10mm ($^5/_{16}$–$^3/_8$in) hole into one of the ends. This can then be attached to a screw in the wall and the mirror suspended from this.

Square bridle leather chair



The frame for this chair uses the same format as the Woven bench (see here) – a series of dowels that slot together with the minimum number of woodworking tools and techniques needed. Taking inspiration from Safari chairs and directors' chairs, the wide sling is coupled with a gently angled backrest to provide a comfortable, relaxed position. The leather will age beautifully over time and polish naturally with use. The two most important areas of the frame construction are the drilling of the holes, which must be as straight as possible, and the gluing of the frame. Don't glue until you have completed a satisfactory dry fit to make sure the frame is square. Lounge chairs look great in pairs, so if you complete one, make another to sit alongside! The price of a hardwood and bridle leather chair, if purchased, would usually be very expensive. This design can be made for around a quarter of the cost. Alternatively, you can make new leather covers for an existing frame chair.

Materials

- 14 dowel timber lengths (as per diagram)
- Card for template
- Large shoulder of bridle or thick vegetable-tanned leather
- Waxed linen thread & needles
- Straight spare pieces of timber
- Contact adhesive
- Wood glue – slow setting
- Gum tragacanth
- Danish oil or furniture wax

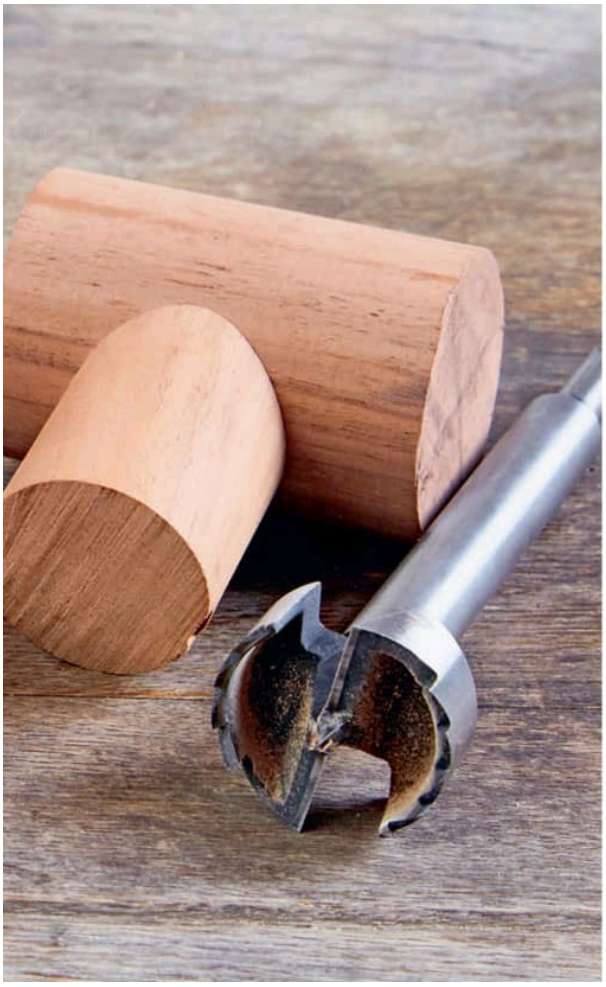
Tools

- Pillar drill with 25mm (1in) & 38mm (1 $^{1}/_{2}$in) Forstner bits
- G-clamps and quick-release clamps
- Sash clamp
- Bevel hand tool
- Burnisher
- Pricking iron
- Hammer
- Awl
- Stitching clamps
- Dovetail saw

01. Prepare chair frame components

Cut your timber to the lengths specified in the diagram and separate them into the respective sets by diameter. On the base of the 50mm (2in) sections, draw a centred cross on one end. On a flat surface place a straight piece of timber alongside as a guide to extend the cross lines along the lengths to create 4 lines at 90-degree intervals.

Referring to the diagram, make all the holes using Forstner bits on a pillar drill. Use a wooden V block jig to cradle the legs when drilling. Make sure each piece is clamped tightly to a flat surface and that the surface you are drilling sits at exactly 90 degrees to the drill bit. Drill the holes in the 50mm (2in) legs – 38mm (1 $^{1}/_{2}$in) wide at 50mm (2in) and 152mm (6in), then change to 25mm (1in) wide for holes at 254mm (10in) and 355mm (14in). Drill all the holes in the 50mm (2in) legs to a depth of 33mm (1 $^{3}/_{8}$in). Drill the holes in the lower armrests halfway to a depth of 13mm ($^{1}/_{2}$in).



02. Make templates

Make a template from card for the seat base according to the diagram. Mark your stitching and folding lines on it – stitching lines at 185mm (7 $^{3}/_{8}$in) inset on the front and folding lines at 195mm (7 $^{5}/_{8}$in) on the back. Cut out the leather sling using this template, and transfer the markings onto the piece of leather. Bevel and burnish the edges, including the cutouts for the backrest uprights.

03. Glue and sew seat sling

Turn the leather over and glue along the inside of the line at 195mm (7 $^{5}/_{8}$in) to a depth of 15mm ($^{5}/_{8}$in). You may want to mask off a 13mm ($^{1}/_{2}$in) wide channel to contain the glue. Glue along both sides to a 13mm ($^{1}/_{2}$in) depth. You can soften the leather to make it easier for folding by gently folding and massaging it along the fold line. Fold over the side so that the edges line up with the corresponding glued line, folding the leather in the middle, pinching it together and then moving outwards in stages. Hammer the adhesive to ensure a bond. Turn the leather grain side up and prick stitching marks along the stitching lines. Stitch the sides with a heavy thread then prick and stitch the front and back edges in between the two side rows. This will reinforce them and prevent stretching.

04. Assemble frame

You must first have a dry run to iron out any fitting issues. The dowels need to fit tightly and you will have to sand the ends to ensure a proper fit. Check all dowel fittings before you attempt full-frame assembly. Once happy, you can then glue the frame. Get another person to help if you can.

To assemble the chair, take the two back legs and insert two of the lower 25mm (1in) braces – 584mm (23in) long, in the holes at 254mm (10in) and 355mm (14in). Repeat on the front legs. Glue the back and front sections first. Now insert the half-drilled 38mm (1 $^{1}/_{2}$in) timber sections 458mm (18in) into the holes at 152mm (6in) and the full-drilled section at 50mm (2in). Make sure they are aligned. Now pass the leather base sleeves over the bottom lengths, then insert the 25mm (1in) backrest dowels (406mm/16in) long through both armrest holes. You should now have the back and both sides of the frame assembled. Attach them to the front of the frame.

Rehearse this order as the gluing stage can be stressful. You must work quickly to apply the clamps.

05. Make backrest

Make up a template according to the diagram. A subtle angle of just 10 degrees applied to the point at which the backrest folds provides ample comfort. Use a compass to mark the angles accurately.

Mark the stitching and folding lines at 270mm (10 $^{5}/_{8}$in) from the centre point and the fold line on the reverse at 280mm (11in). Transfer to the leather, cut out and score the stitch lines and fold lines on the front and back. Bevel and burnish the edges. Glue, prick and stitch the backrest with well-waxed heavy thread.

06. Attach backrest to frame

Once the frame has set and been glued, take a small block plane or sandpaper and gently chamfer the top edges of the backrest dowels. Then take the backrest and slide it onto the frame, sliding both sides at the same time. You may want to do any additional burnishing to the top edge at this point.

Tip: If you are making new leather covers for an existing chair of a similar type, you can gently remove them at the seams or cut them off, then make a pattern and replace. Another easy and rewarding alternative is to use some quality leather on a director's chair. They are low cost and readily available.

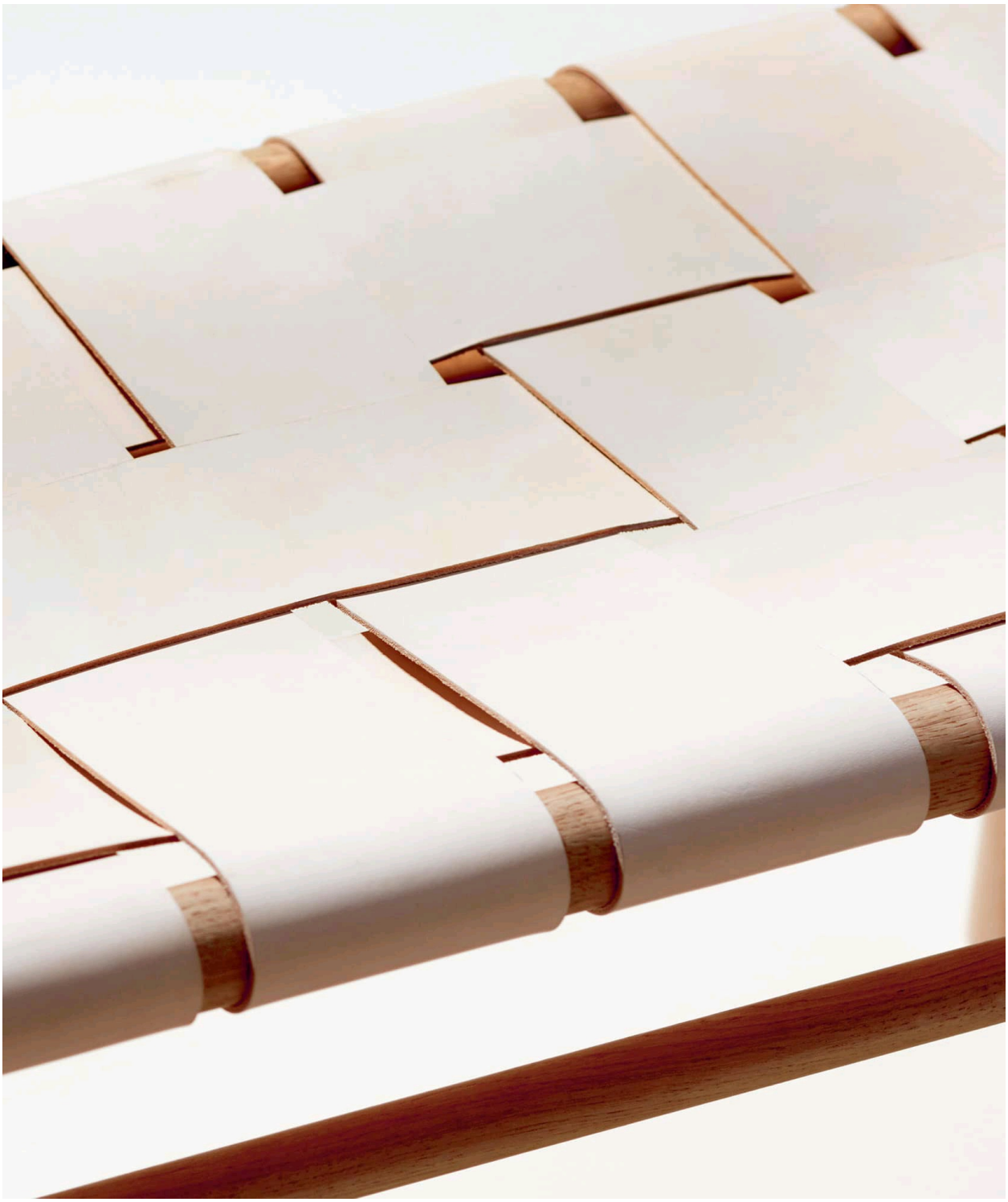
07. Finish

The chair will need a light coat of Danish oil or furniture wax. Put a light coat on then leave to dry. Repeat a few more times and finally buff to get a lightly glowing finish. Use a brush to remove any residual bloom or finish from the leather before you use. The chair should be ready to sit in!

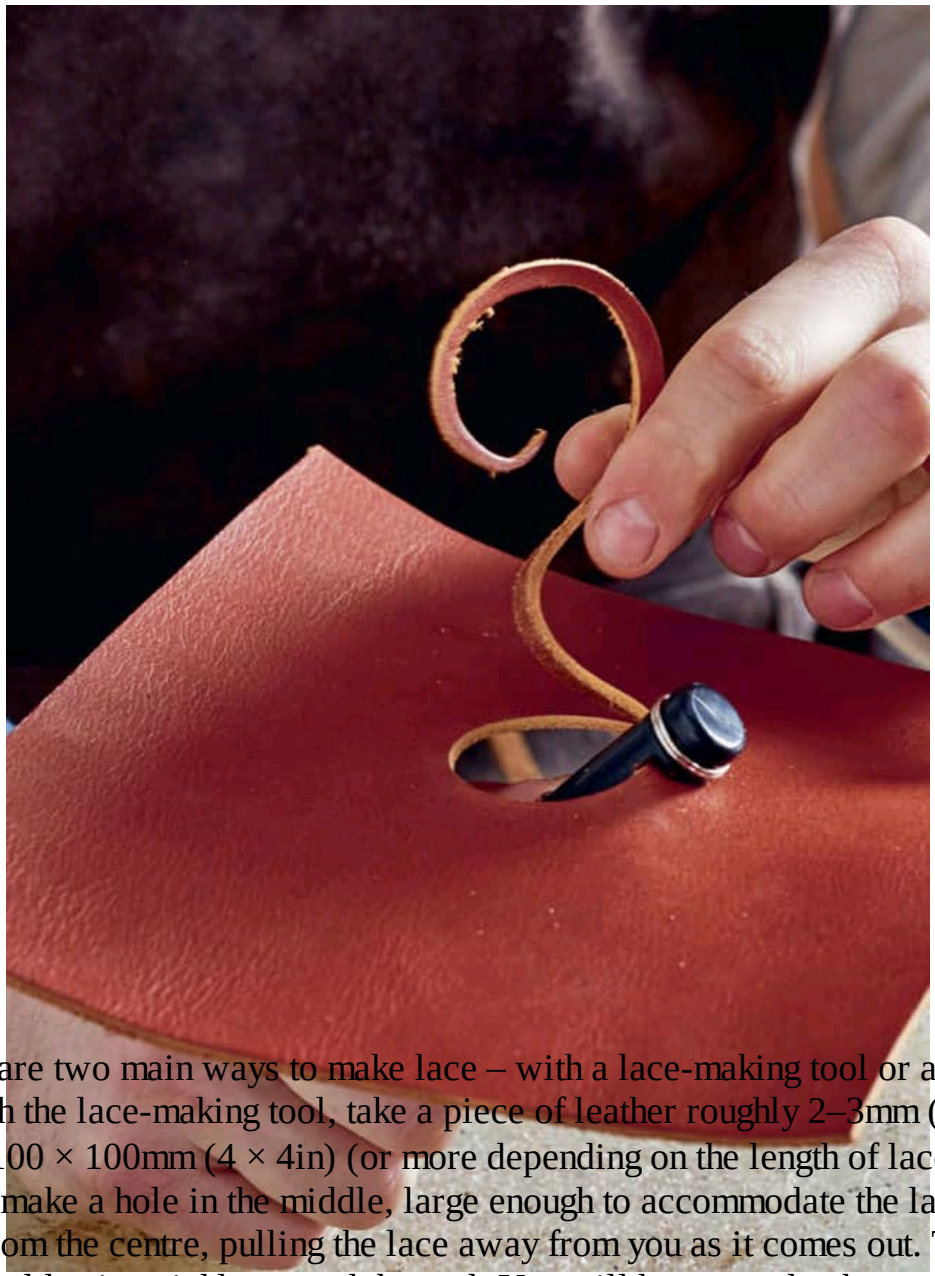
Lacing and weaving

Lacing and weaving no doubt predate even stitching as a method of construction. The earliest clothes and shoes, tools and weapons all show signs of this technique. It is a wonderfully universal technique that has been used all over the world, and still is. In South America and for the indigenous Central American tribes it formed the basis for much of the footwear and bag making; they made use of leather strips to bind items together and, in doing so, developed an array of intricate patterns to add decoration.

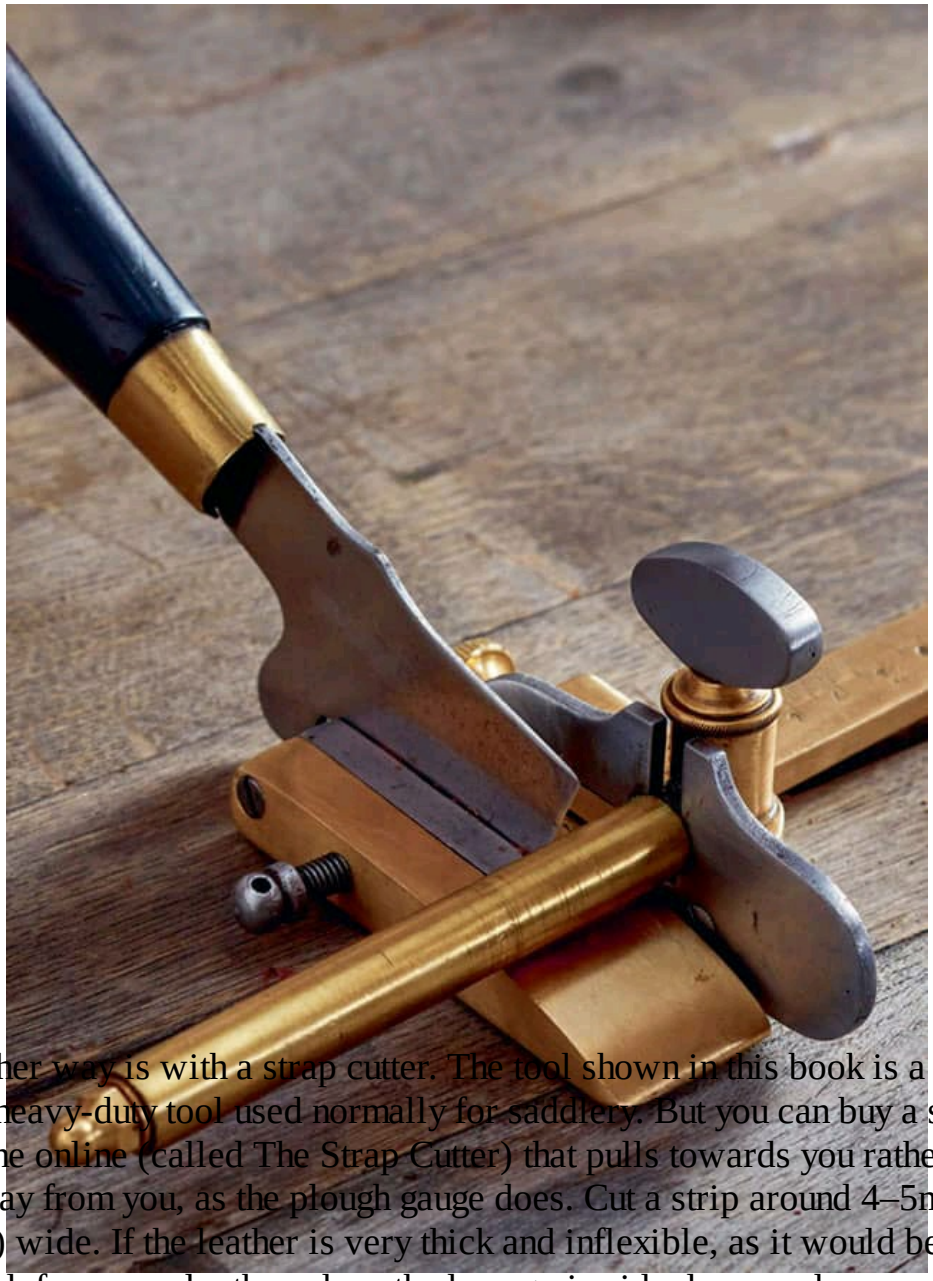
The complexity that has evolved is a subject in itself, so only three of the simplest are outlined here: a plain weave, a straight lace and a cross lace technique. With the use of a simple strap cutter and lace-making tool, weaving becomes a great way of using up offcuts of leather that you may not have been able to assign to a project. You will find that with some experimenting and practice the possibilities for design are almost endless, since you can change the width of the lacing, the pattern and technique, and incorporate a huge array of colours. It can prove challenging to learn and especially to keep track of where all the laces and strips are going, but there is great satisfaction in lacing and weaving as the process is very physical and dextrous. When you see a laced or woven item, you always know it has been made by hand and therefore these pieces have a really personal quality. You don’t always have to put much of this technique into a piece to give it character; often it will be enough just to use it as a detail.



Lace making and strap cutting



01. There are two main ways to make lace – with a lace-making tool or a strap cutter. With the lace-making tool, take a piece of leather roughly 2–3mm ($^1/_{16}$–$^1/_8$in) thick and 100 × 100mm (4 × 4in) (or more depending on the length of lace you want) and make a hole in the middle, large enough to accommodate the lacing tool. Spiral it from the centre, pulling the lace away from you as it comes out. The leather should spin quickly around the tool. You will be amazed at how much lace a small scrap of leather will give you.



02. The other way is with a strap cutter. The tool shown in this book is a plough gauge – a heavy-duty tool used normally for saddlery. But you can buy a standard wooden one online (called The Strap Cutter) that pulls towards you rather than pushes away from you, as the plough gauge does. Cut a strip around 4–5mm ($^{3}/_{16}$–$^{1}/_{4}$in) wide. If the leather is very thick and inflexible, as it would be from a bridle bend, for example, then place the lace grain side down and use a small block plane to thin it down. I have found this works really well with narrow strips and can take about 0.5–1mm ($^{1}/_{64}$–$^{1}/_{32}$in) off with each pass until the lace is adequate.

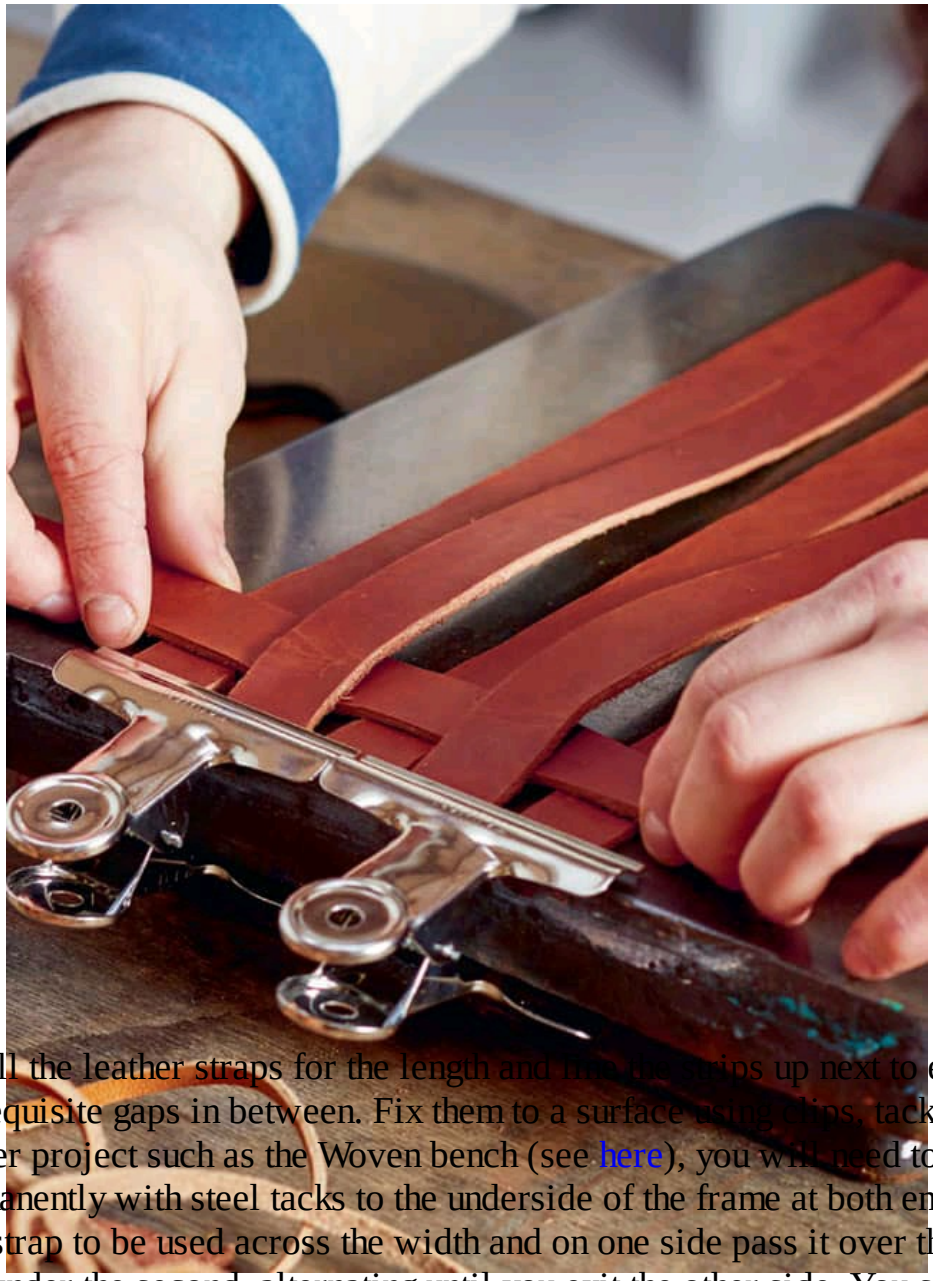
You don't want the lace to be too stretchy; it should have only a slight give. Pull some of the stretch out before you use it.

03. To use the wooden strap cutter (not plough gauge), set it up with the blade edge in place and the spacer height set to the leather thickness. Put a straight edge on the leather piece you are working with. Hold the far end of the leather and place the strap cutter alongside the edge. Pull towards you and take the emerging strap in your free hand. Keep the cutter flush along the leather edge all the way. If you start to wobble, your strap will clearly show dents and curves. Pull the strap away from you to promote close contact. Run the strap cutter till the end of the piece of leather. If you start to feel resistance in the blade, change the blade; your leather will cut more easily and have better edges, leaving less work to do afterwards.

The plough gauge runs in the opposite way; you pull the leather towards you and push the blade away. They are better for thicker leathers, but are a lot more expensive.

Basic weave

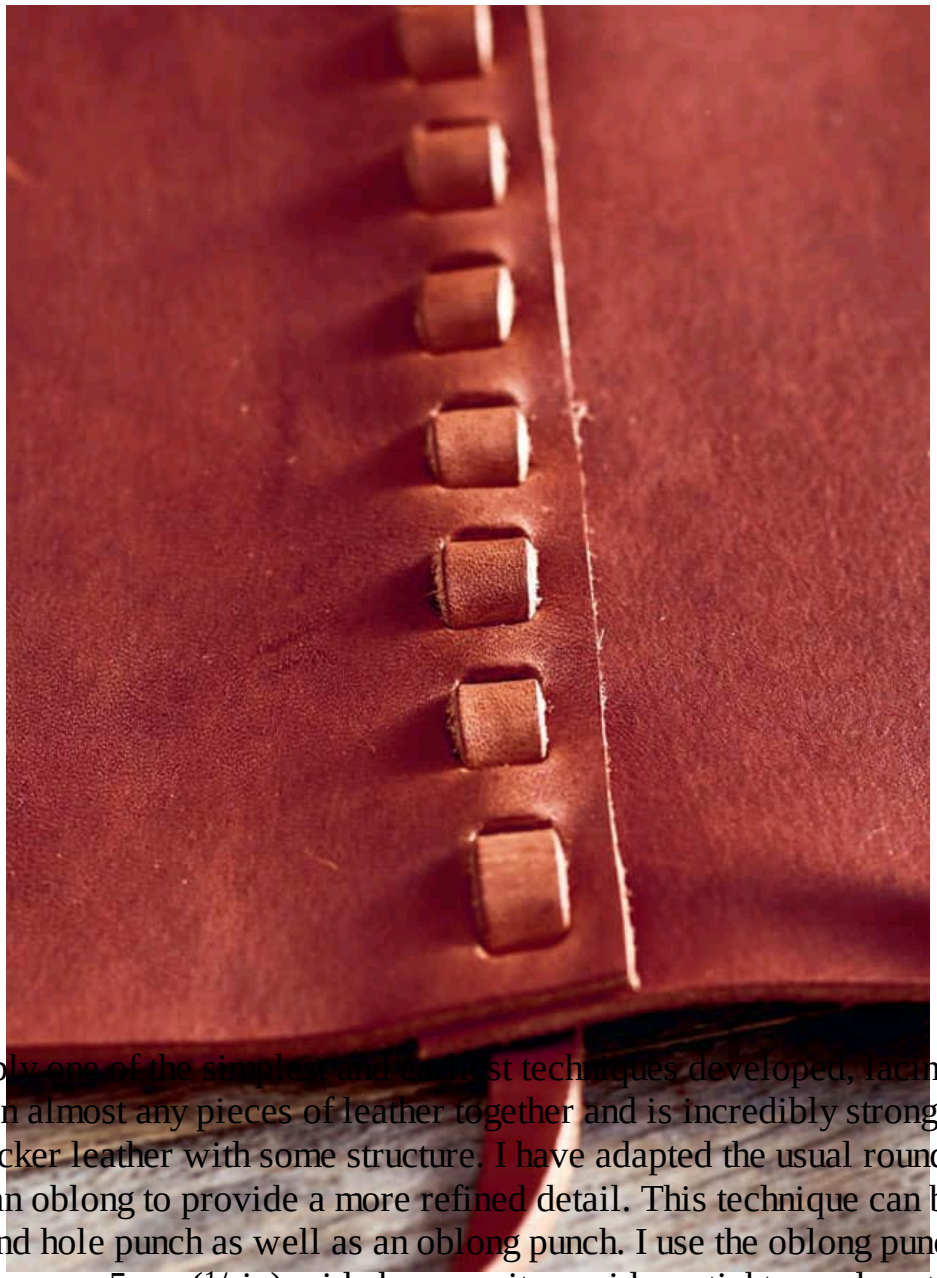
01. Measure the width and length of the area you will be weaving across. Divide those numbers by the width you want your strips to be. Depending on the thickness of leather you will be using you are going to need a small gap of around 4–5mm ($^{3}/_{16}$–$^{1}/_{4}$in) in between each strap for leather of around 3–4mm thick ($^{1}/_{8}$–$^{3}/_{16}$in). If you are using 2–3mm ($^{1}/_{16}$–$^{1}/_{8}$in), then factor this into the overall measurements. Try to arrange it so you have an odd number of straps for the length and width, as this will create a symmetrical weave. Take your strap cutter, set it to the chosen width, and cut your straps. Once you have all the strips you need, cut them to length, giving yourself some excess on each strip. Make sure you have enough leather of the same type (unless you are using a number of offcuts, which can be a great way of using them up if you plan it carefully).



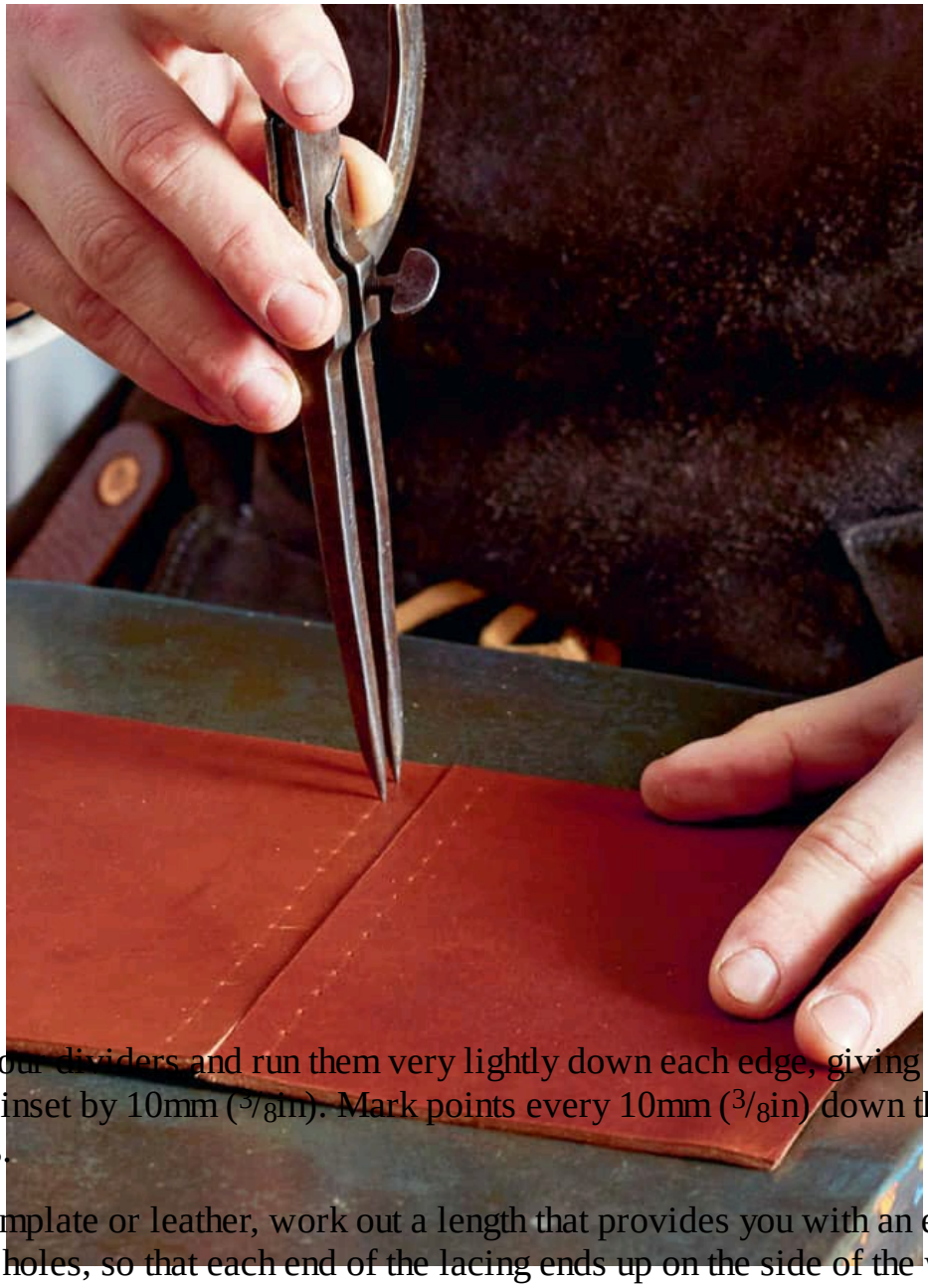
02. Take all the leather straps for the length and line the strips up next to each other with the requisite gaps in between. Fix them to a surface using clips, tacks or tape. For a larger project such as the Woven bench (see here), you will need to secure them permanently with steel tacks to the underside of the frame at both ends. Take your first strap to be used across the width and on one side pass it over the first strap and under the second, alternating until you exit the other side. You should exit from underneath the penultimate strap, over the top of the last.

03. Now take the second strap and from the same side you started, pass it under the first strap and over the second. This should be an inversion of the first row. Push the second row up against the first until it cannot move further and there are minimal gaps (unless you have planned for one in your design). Work up the rest of the length, alternating the process at each row. Make sure the weave is tight. You will find that with the heavier leathers it becomes quite a physical process. You will need to maintain the straps in their allotted line; they will bend out of place if you don't keep them in check. If you are working on a frame, then wrap under, tack and cut any excess neatly using a scalpel. If you are working on a panel or a bag, for example, then make sure all the ends are cut to the same length and place a long folded strip along the length. Glue it over the ends and stitch into place.

Straight lace

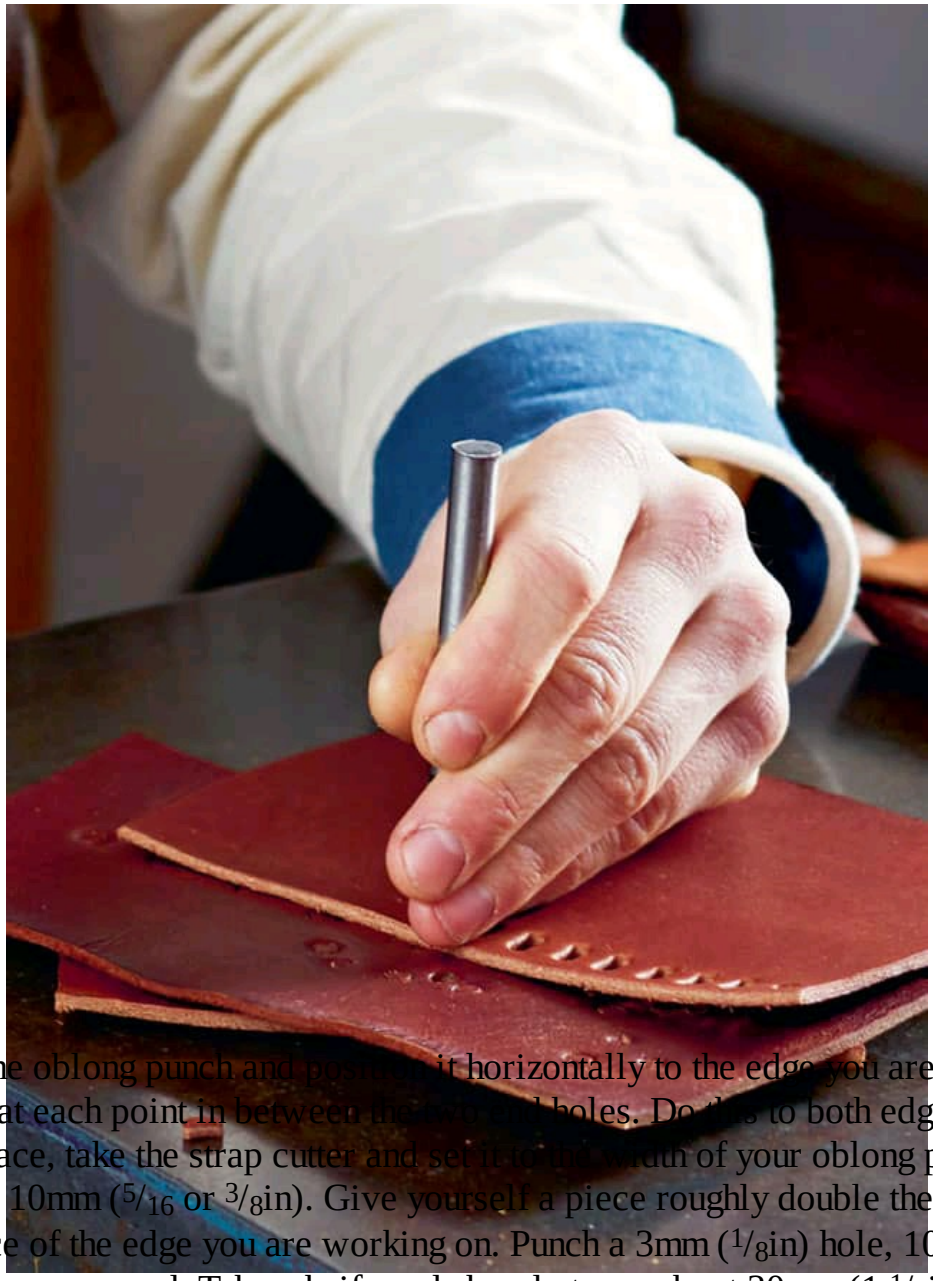


01. Probably one of the simplest and easiest techniques developed, lacing can be used to join almost any pieces of leather together and is incredibly strong. It works best on thicker leather with some structure. I have adapted the usual round hole design to an oblong to provide a more refined detail. This technique can be done with a round hole punch as well as an oblong punch. I use the oblong punch when using lacing over 5mm ($^1/_4$in) wide because it provides a tighter and neater result at a wider measurement. I usually use 8–10mm ($^5/_{16}$–$^3/_8$in) wide and 2mm ($^1/_{16}$in) thick lacing to give a strong bind and really striking detail. The two edges will be overlapping, so factor this into your design by giving yourself an extra 10mm ($^3/_8$in) on each edge.

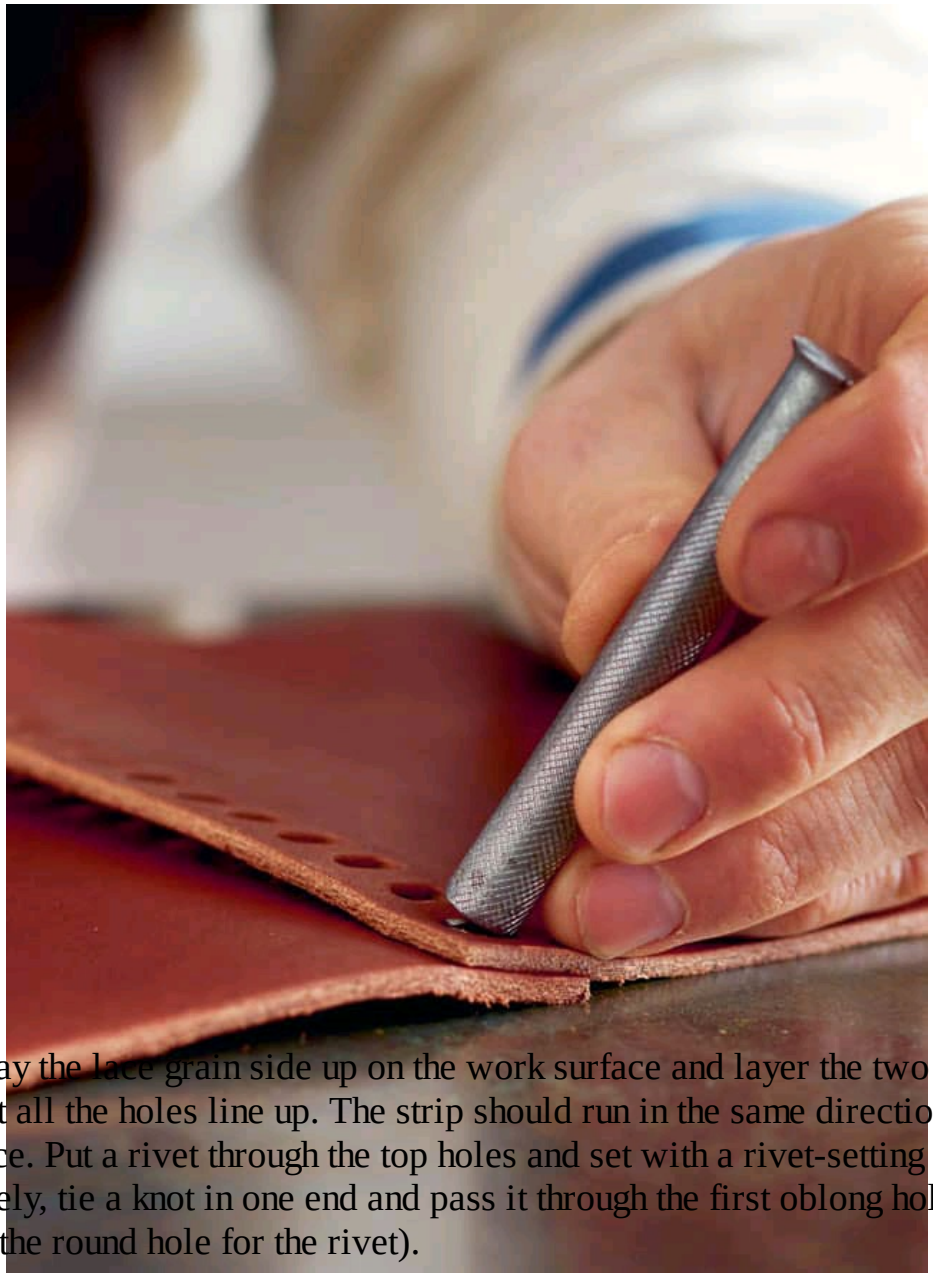


02. Take your dividers and run them very lightly down each edge, giving yourself a guide line inset by 10mm ($^{3}/_{8}$in). Mark points every 10mm ($^{3}/_{8}$in) down the line on both edges.

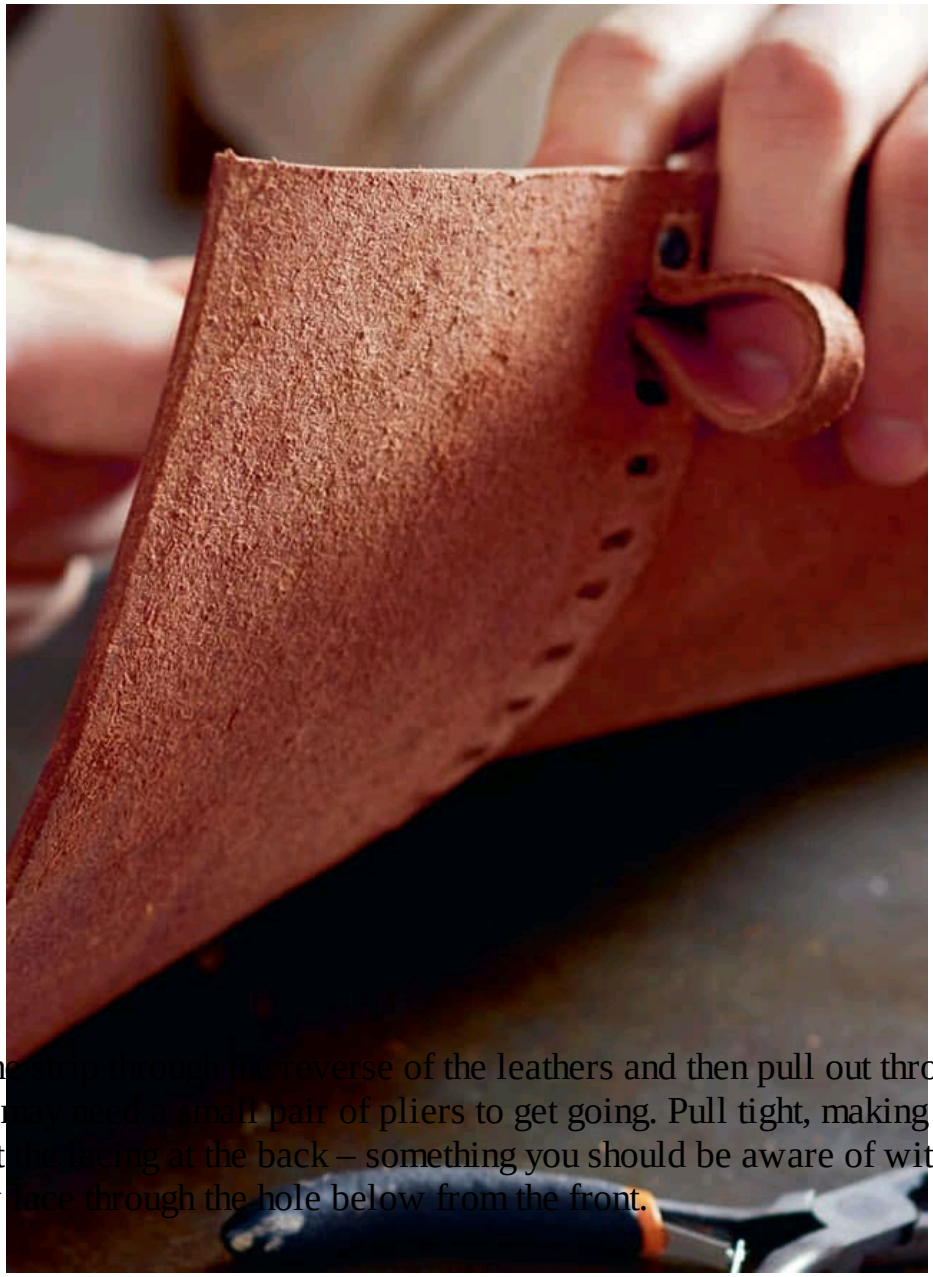
On your template or leather, work out a length that provides you with an even number of holes, so that each end of the lacing ends up on the side of the work that is not visible, rather than poking outside – unless this is going to be a featured detail. At the top and bottom holes you can mark the holes with a 3mm ($^{1}/_{8}$in) round hole for a rivet. However, you may want to tie the lacing in a knot on the inside of the piece instead of using rivets, in which case you can stick to using the oblong punch for the end holes.



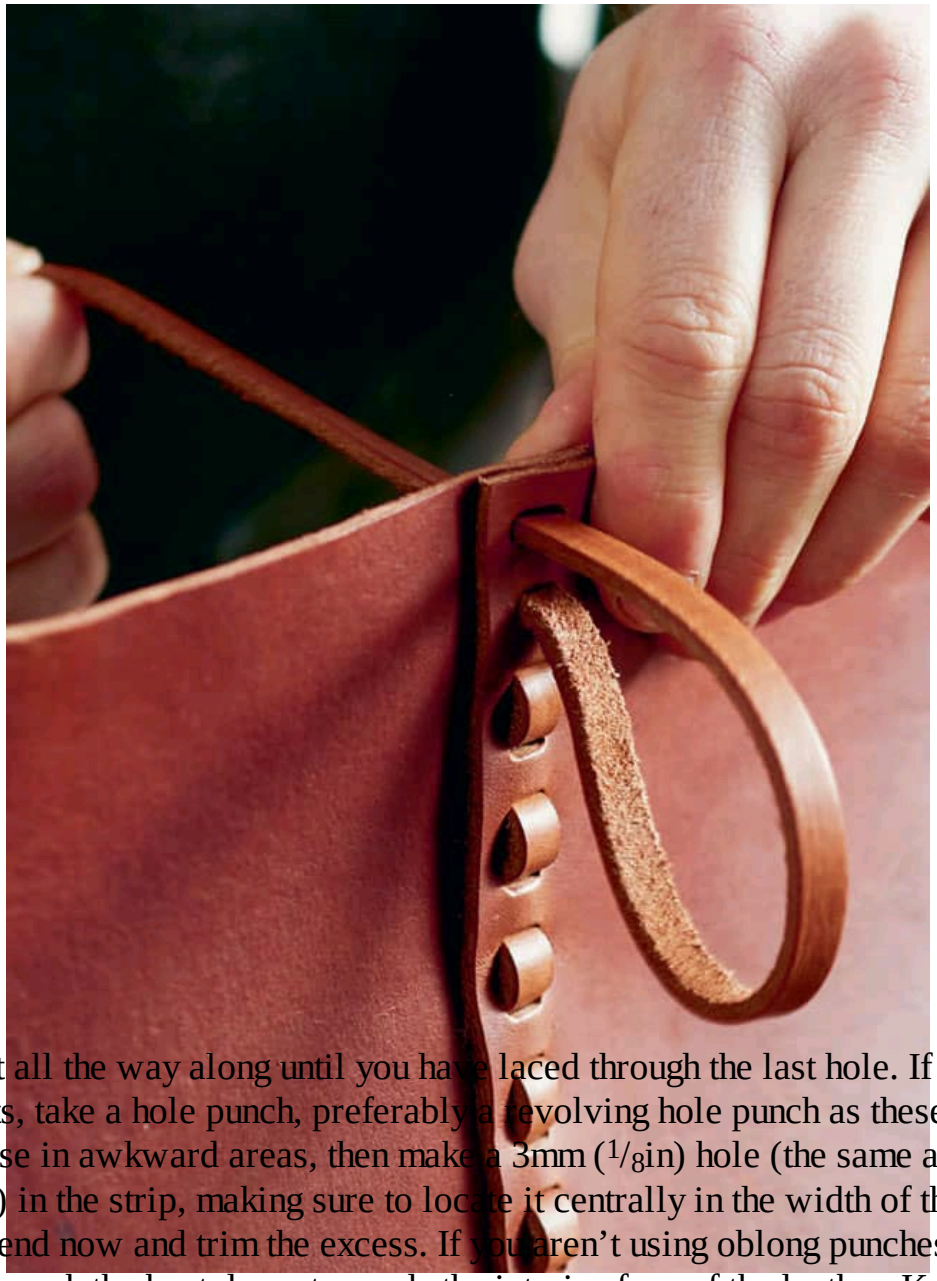
03. Take the oblong punch and position it horizontally to the edge you are working on. Punch at each point in between the two oval holes. Do this to both edges. To make the lace, take the strap cutter and set it to the width of your oblong punch, either 8 or 10mm ($^5/_{16}$ or $^3/_8$in). Give yourself a piece roughly double the length of the distance of the edge you are working on. Punch a 3mm ($^1/_8$in) hole, 10mm ($^3/_8$in) in from one end. Take a knife and sharply taper about 30mm (1 $^1/_4$in) of the other end of the strap to a point. This will help you thread it in and out.



04. Now lay the lace grain side up on the work surface and layer the two edges on top, so that all the holes line up. The strip should run in the same direction you want to lace. Put a rivet through the top holes and set with a rivet-setting tool. Alternatively, tie a knot in one end and pass it through the first oblong hole (set instead of the round hole for the rivet).

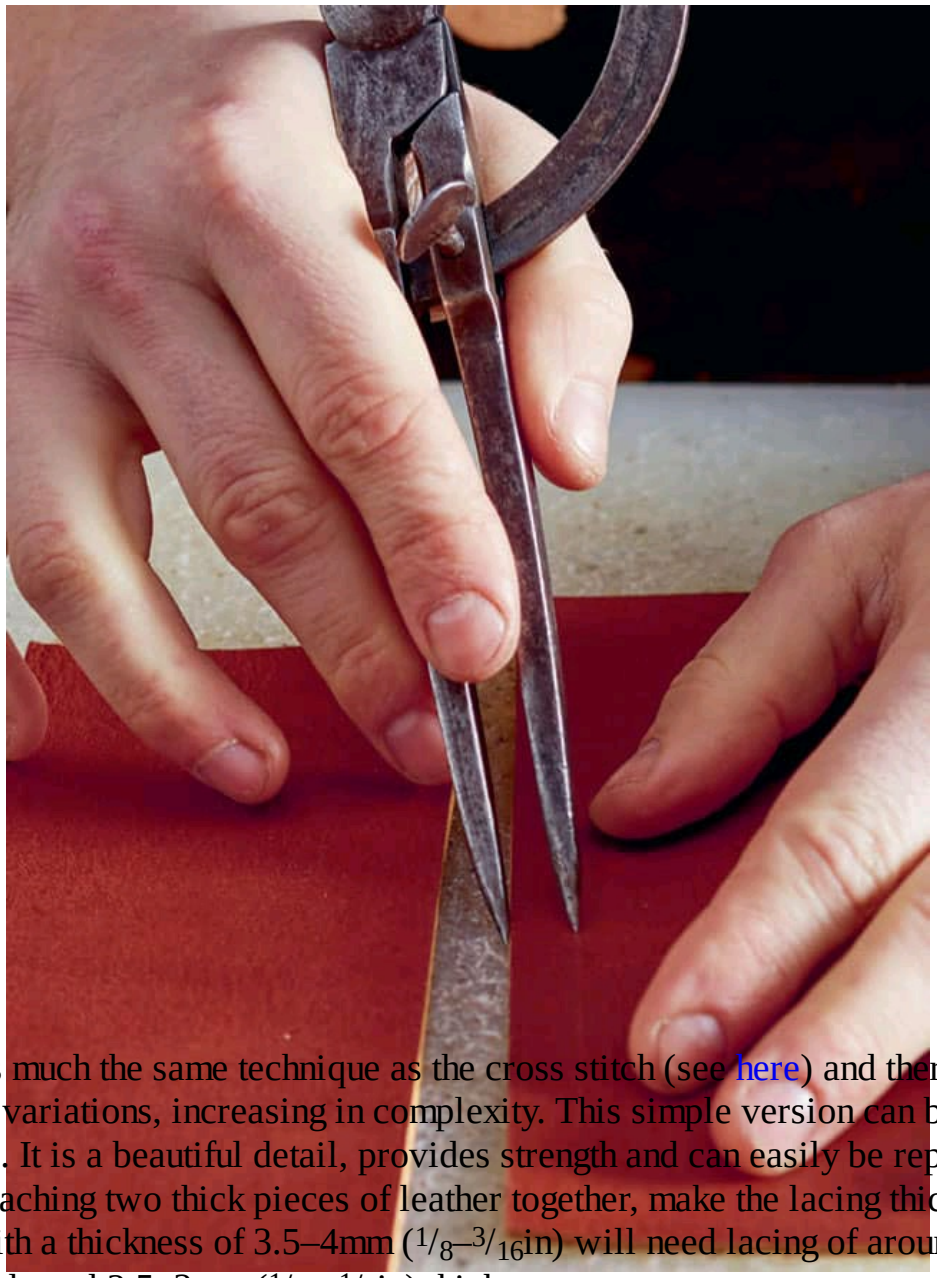


05. Pass the strip through the reverse of the leathers and then pull out through the front. You may need a small pair of pliers to get going. Pull tight, making sure you don't twist the lacing at the back – something you should be aware of with each pass. Now lace through the hole below from the front.



06. Repeat all the way along until you have laced through the last hole. If you are using rivets, take a hole punch, preferably a revolving hole punch as these are easier to use in awkward areas, then make a 3mm ($^1/_8$in) hole (the same as the initial one) in the strip, making sure to locate it centrally in the width of the strip. Rivet this end now and trim the excess. If you aren't using oblong punches, then tie a knot and work the knot down towards the interior face of the leather. Keep the grain facing the same way for strength and a better aesthetic.

Cross lace

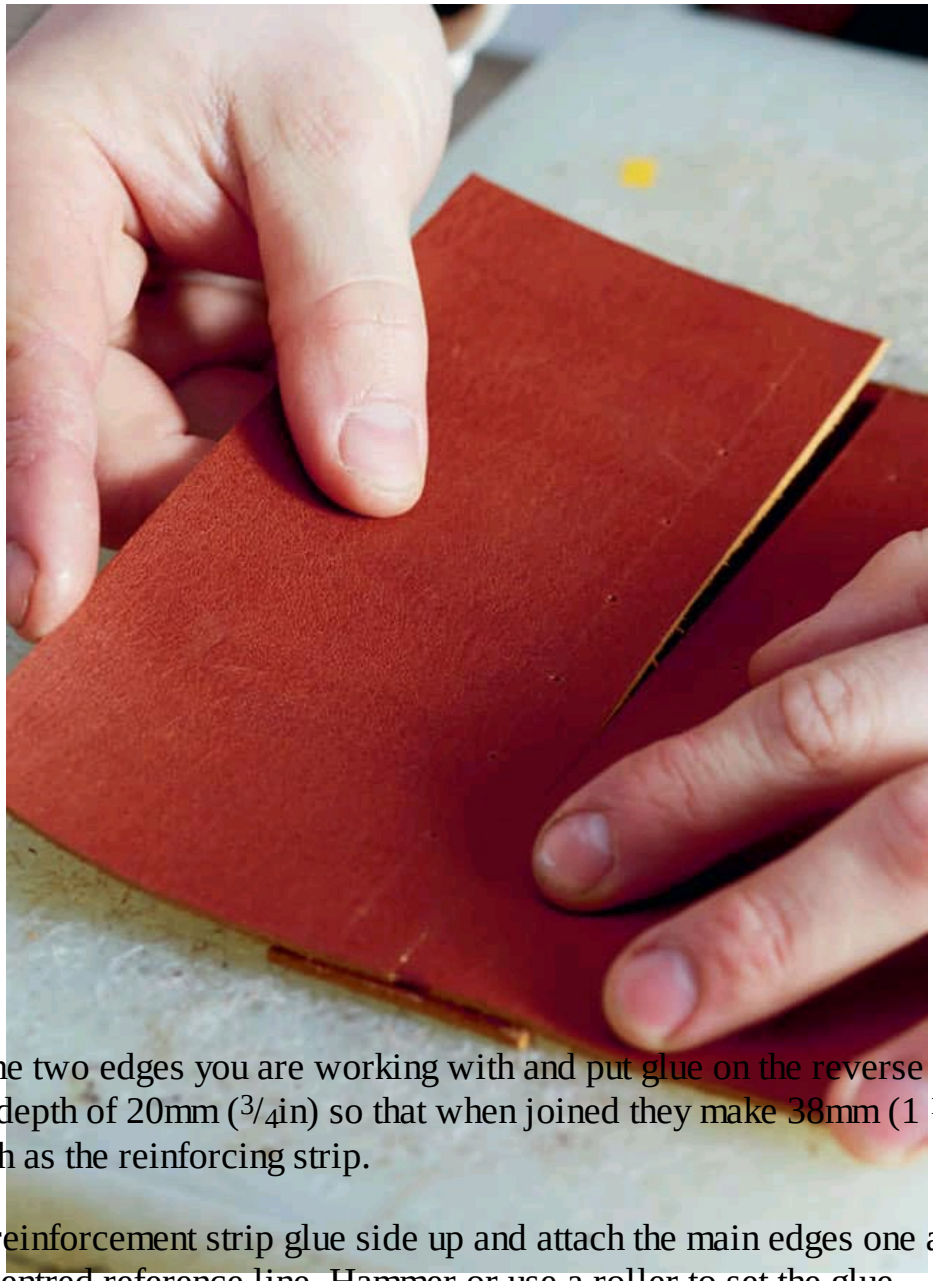


01. This is much the same technique as the cross stitch (see here) and there are a number of variations, increasing in complexity. This simple version can be scaled to any size. It is a beautiful detail, provides strength and can easily be repaired. If you are attaching two thick pieces of leather together, make the lacing thicker too. Leather with a thickness of 3.5–4mm ($^1/_8$–$^3/_{16}$in) will need lacing of around 4mm ($^3/_{16}$in) wide and 2.5–3mm ($^1/_{16}$–$^1/_8$in) thick.

Take the edges you wish to join and work out what size crosses you want. Keep them square – if your crosses are 20mm ($^3/_4$in) high, then you will want to mark in 10mm ($^3/_8$in) from each edge; if they are 10mm ($^3/_8$in) high, then mark 5mm ($^1/_4$in), and so on. You want the lacing to finish on the inside of the piece, so work out how

many crosses you need and divide the distance to achieve this result. We shall assume crosses 20mm ($^3/_4$in) for this exercise, with lacing 4mm ($^3/_{16}$in) wide.

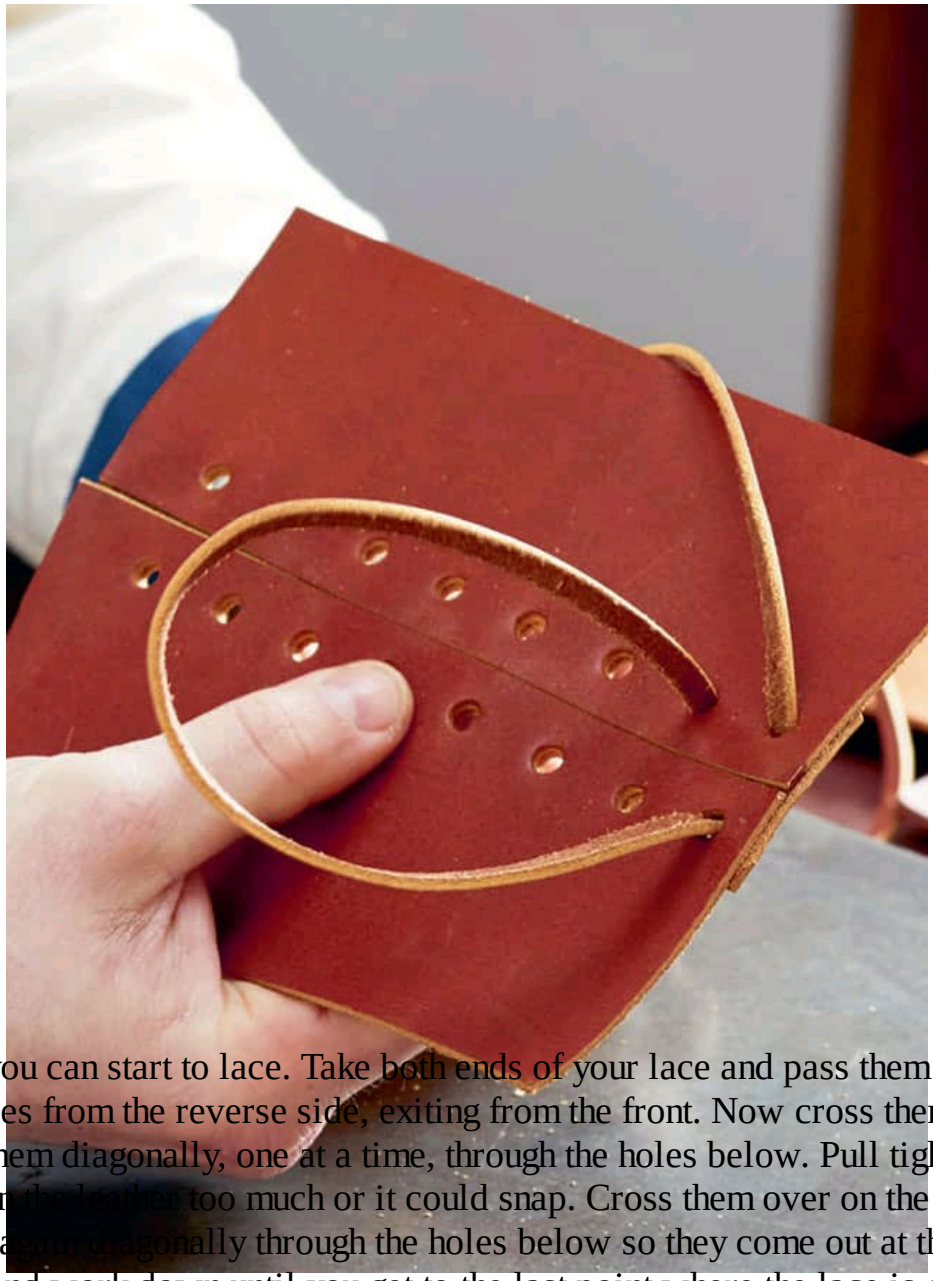
02. Mark down each edge every 20mm ($^3/_4$in) at a distance of 10mm ($^3/_8$in) from the edges. You will need to reinforce the lacing on the back. Take a piece of leather approximately 2mm ($^1/_{16}$in) thick. Cut a strip that is the same length as the edge you wish to stitch and 38mm (1 $^1/_2$in) wide. (Whatever ratio you are using, make sure your reinforcing piece of leather is wider than the width of the crosses by at least 5mm ($^1/_4$in). Transfer the same hole markings to the reinforcement piece, keeping the holes 20mm ($^3/_4$in) apart. On the reverse side, score a line down the middle for reference when gluing. Now put glue on the reverse side of the reinforcement piece.



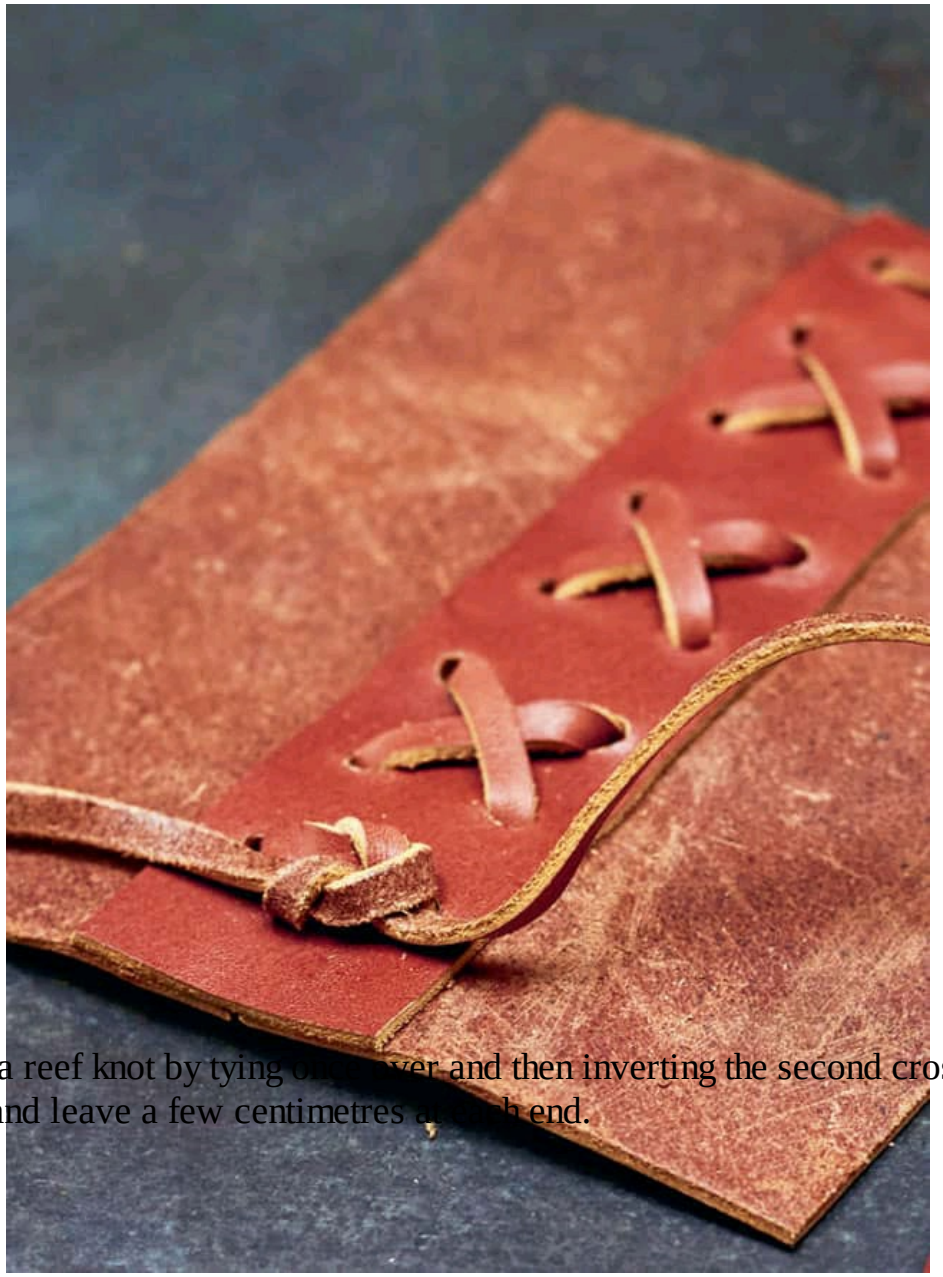
03. Take the two edges you are working with and put glue on the reverse side of each, to a depth of 20mm ($^3/_4$in) so that when joined they make 38mm (1 $^1/_2$in), the same width as the reinforcing strip.

Place the reinforcement strip glue side up and attach the main edges one at a time using the centred reference line. Hammer or use a roller to set the glue.

04. Using a hole punch that matches the size of your [illegible] 3–5mm ($1/8$–$1/4$in), punch holes along the marked intervals all the way down the piece, through both layers. Take care when aligning the tool over the marks, as even a couple of millimetres either side of the mark will give an awkward appearance.

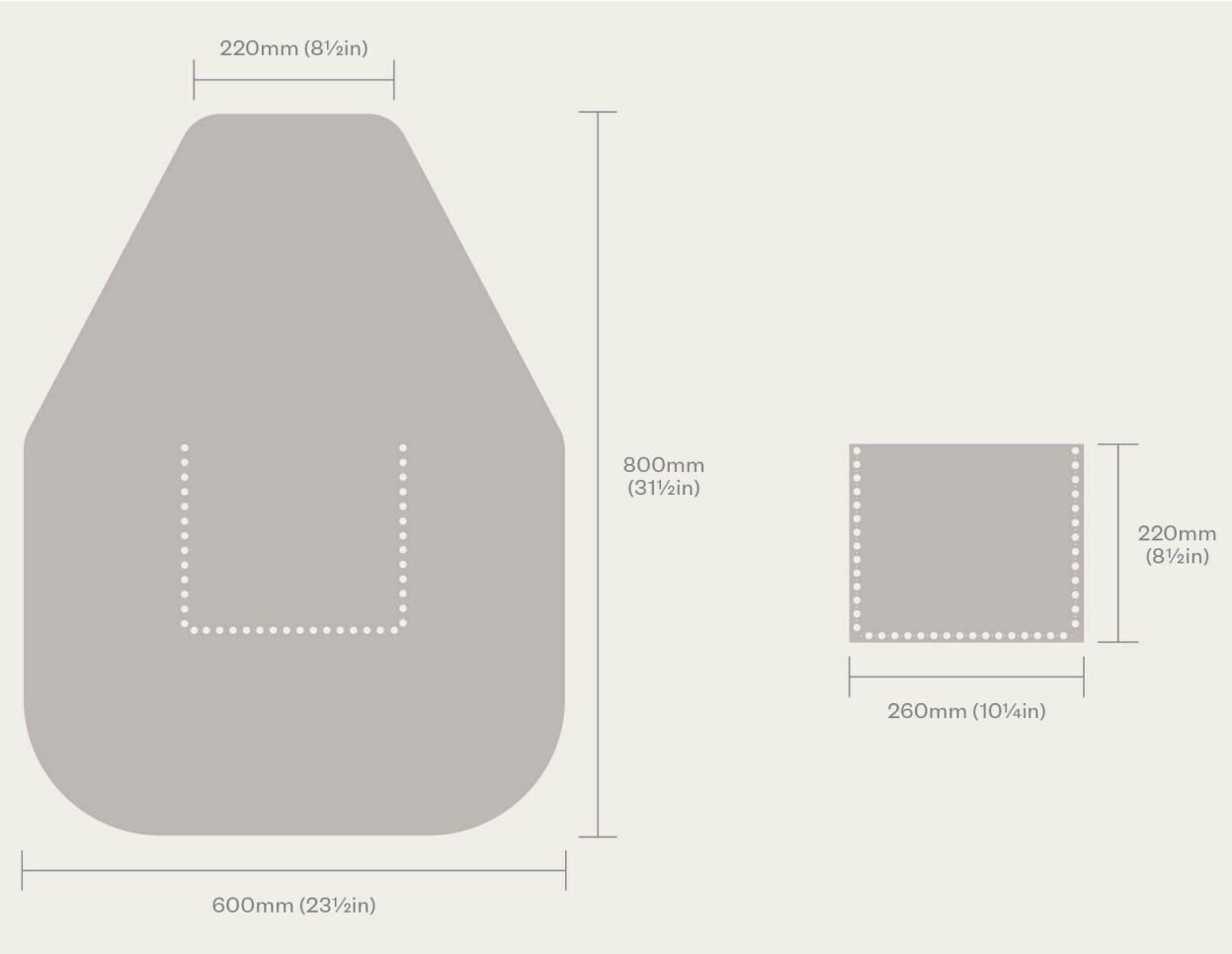


05. Now you can start to lace. Take both ends of your lace and pass them through the top holes from the reverse side, exiting from the front. Now cross them over and pass them diagonally, one at a time, through the holes below. Pull tight but don't strain the leather too much or it could snap. Cross them over on the back and pass them again diagonally through the holes below so they come out at the front. Pull tight and work down until you get to the last point where the lace is on the reverse. You are essentially alternating the front and reverse faces of the leather. Unlike the cross stitch, you aren't creating a consistent line of crosses on one side. You can also apply the method for the cross stitch to this lacing technique, but you will need to alter the lacing thickness accordingly.



06. Tie in a reef knot by tying one crossover and then inverting the second crossover. Pull tight and leave a few centimetres at each end.

Apron



Leather and suede aprons have traditionally been worn by welders and glass blowers to shield them from heat. If you work outside a lot, or in a workshop or studio, or love cooking, you'll absolutely benefit from a durable apron such as this. Leather protects from heat and scratches and will take quite a beating. It will become soft and full of character over time. The interlocking technique for the pockets is an interesting and fun system to use and one that can be used to connect two panels when making bags. Alternatively, the pockets can be stitched on. Customize your apron depending on which tools or pockets you need.

Materials

- Card for template
- 700 × 1000mm (27 $^{1}/_{2}$ × 39in) piece of leather

- 4mm ($^{3}/_{16}$in) leather lacing, around 3m (120in) in length
- 6mm ($^{1}/_{4}$in) metal rivets
- Eyelets (optional)

Tools

- Knife
- Scalpel
- Dividers
- Bevel hand tool
- Hole punch set
- Riveting tool
- Eyelet-setting tool (optional)
- Hammer

01. Make template

You will need to make a mock-up of the apron in card first to make sure you understand the technique and have accurately cut the pocket and holes. Once correct, transfer onto leather.

Start by making a template for the body of the apron according to the diagram (without holes) and the pocket. Take a cup or small bowl and round the corners off the top and sides. Use a small plate or similar of around 150mm (6in)and use it to round the bottom corners.

To make the pocket template, cut a piece of card 260mm wide × 210mm high (10 $^{1}/_{4}$ × 8in). Score a line inset 10mm ($^{3}/_{8}$in) along the side and bottom and use compass dividers to mark every 8mm ($^{5}/_{16}$in) along the bottom and sides, starting from the corner.

02. Mark holes

Starting along the bottom line of the pocket, leave the corner marks and start on the first mark inset from the left or right corner – punching an 8mm ($^5/_{16}$in) hole every other hole. You should have 16 along the bottom. Now work up the sides, again leaving the corner marks and starting from the first inset.

Place the template on a piece of leather that you will use for the pocket. Trace the edges of the template onto the leather and mark through with a point at all the points *not* punched through. There should be 14 holes on the sides sides, including the corners, and 17 holes along the bottom, including the corners. Remove the template and punch 8mm ($^5/_{16}$in) holes at each of the marks made, then cut out the pocket.

03. Punch out holes

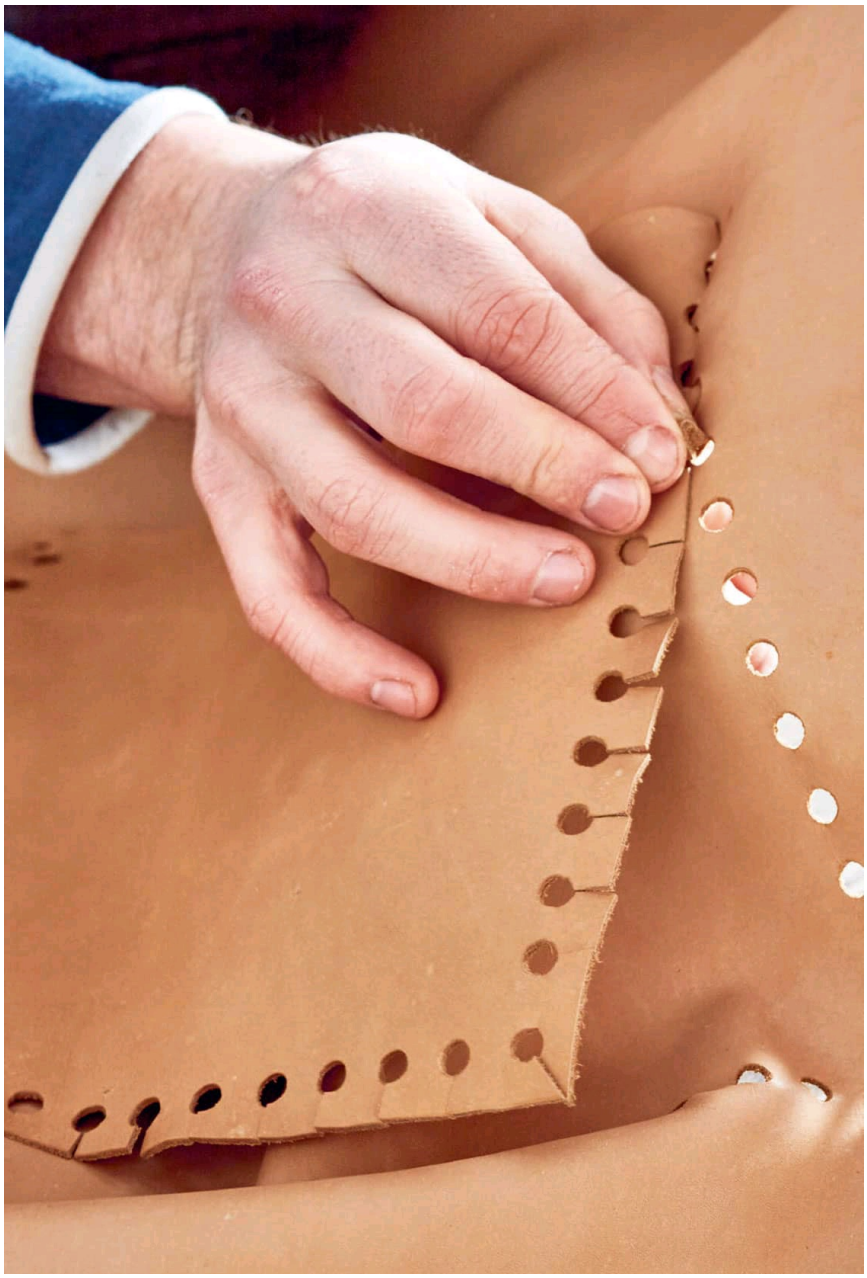
Take the pocket template (not the actual pocket) and position it on the leather apron. Keeping it in place with weights, transfer the holes that *have* been punched already on the template to the apron. Take a 3mm ($^1/_8$in) hole punch and very carefully punch a hole that is 4mm ($^3/_{16}$in) outside of the top left and right pocket holes on the body of the apron. These will be for the rivets to hold the tabs in once the pocket is in place.

04. Align pocket

Take your pocket piece and the main apron piece and line them up, checking to see if any of the holes are misaligned. Once happy, take the pocket and using a sharp scalpel or knife, cut out straight from the centre of each hole to the outside edge, and cutting out at 45 degrees to the corners on the corner holes.

05. Flatten notches

Take the prepared pocket piece and now pinch each tab and pass through the front of the apron holes, taking care to flatten out on the back every so often. Once the pocket is in place and flat, take the 3mm ($^1/_8$in) hole punch and carefully punch a hole in the top left and right tabs on the reverse, making sure they line up with the holes punched on the front and keeping away from the edges. Use a cutting mat underneath or work back so you have room to make the hole. You don't want the rivet to tear through the leather.



06. Rivet

Using a rivet setting tool and hollow cap rivet, align the holes in the pocket tabs with the two small holes on the apron body, made in step 03.

07. Make eyelets and buttons

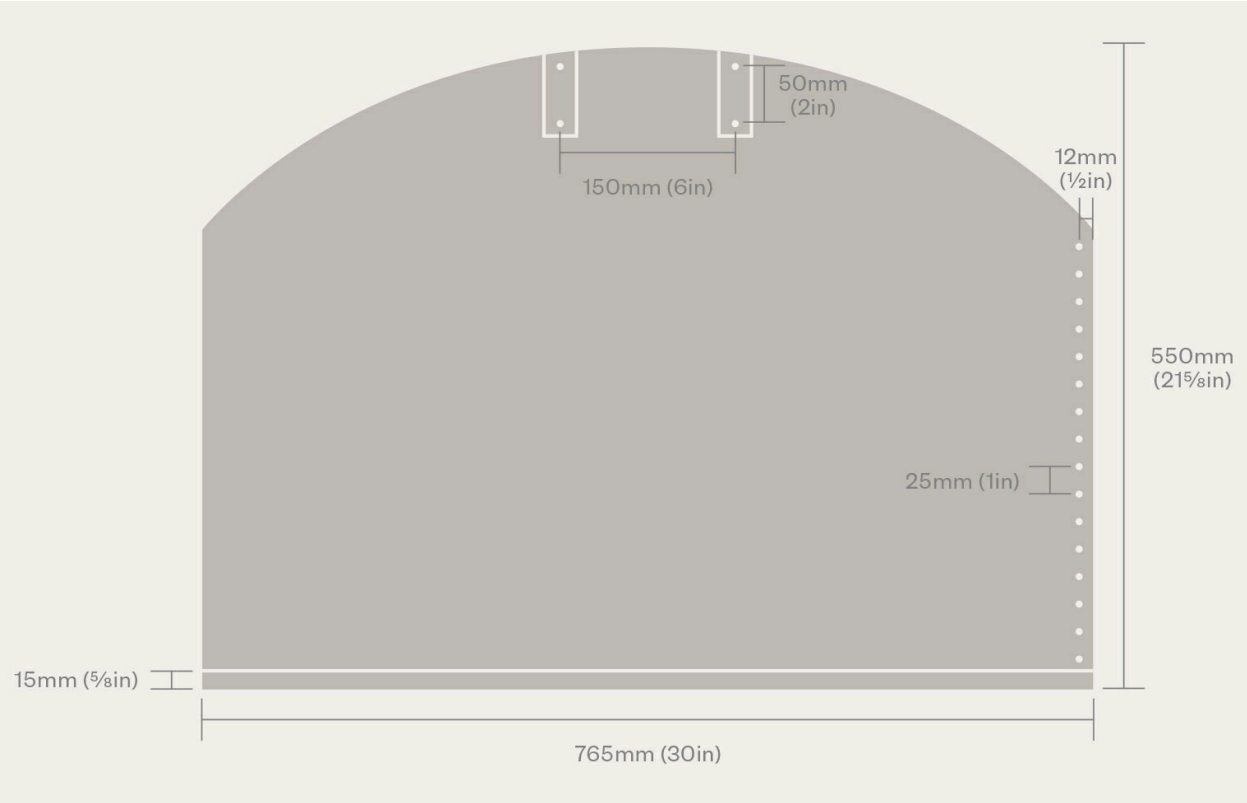
You may want to strengthen the lacing holes for the straps with an eyelet. Take four eyelet pairs and fix using a setting tool, making sure to peen them without splitting the eyelet or breaking through the leather. Using a larger hole punch – around 15–25mm ($^5/_8$–1in) – cut four thick leather discs and then punch a 4mm ($^3/_{16}$in) hole in the middle.

08. Attach lacing

Take three lengths of 4mm ($^{3}/_{16}$in) leather lacing, one to go over your neck and two to tie around the waist. Give yourself more than you need. Use a lace-making tool to prepare your own or use bought lace. Making your own will give you more colour options, and you can use thicker, stronger leathers if you have them. Take the shorter one and tie a knot at one end. Pass it through a button and then through one of the top eyelets. Pass back through the other one and tie off at the desired height. Take the two longest ones, knot at one end and pass through the sides.

Tip: If your leather seems a little stiff or firm, place it on a flat surface, fold it in half and then roll it slowly backwards and forwards to loosen the grain and soften the leather. This will make it more flexible and comfortable for the initial wear-in period.

Log basket



Leather tends to be cut up into smaller pieces. It is an expensive material that often has to be used sparingly. Sometimes, however, it is possible to celebrate the original animal and use larger panels to create bigger, singular items. The beauty of the grain has a chance to really stand out in this log basket. It is a large, impressive piece with a great range of details. It takes time to make but it is extremely durable and will stand the test of time. The nature of the construction means it can be made to any size up to 500mm (19 $^{1}/_{2}$in) wide. You can easily make a smaller one if desired. A solid bridle leather roughly 4mm ($^{3}/_{16}$in) thick works well.

Materials

- Wood for base
- Card for template
- Bend of bridle leather or vegetable-tanned leather around 4–5mm ($^{3}/_{16}$–$^{1}/_{4}$in) thick
- 2 pieces of leather 380mm long × 50mm (14 $^{3}/_{4}$ × 2in) wide, around 2mm ($^{1}/_{16}$in) thick
- 2 × 1500mm (59in) of 4mm ($^{3}/_{16}$in) leather lace
- Copper rivets

- Waxed linen thread & needles
- Contact adhesive

Tools

- Knife
- Scalpel
- Pricking iron
- Trammel compass
- Hole punch set
- Strap-end punch
- Bevel hand tool
- Burnisher
- Hammer
- Stitching clamps
- Rivet setter
- Bolt clippers

01. Make base board

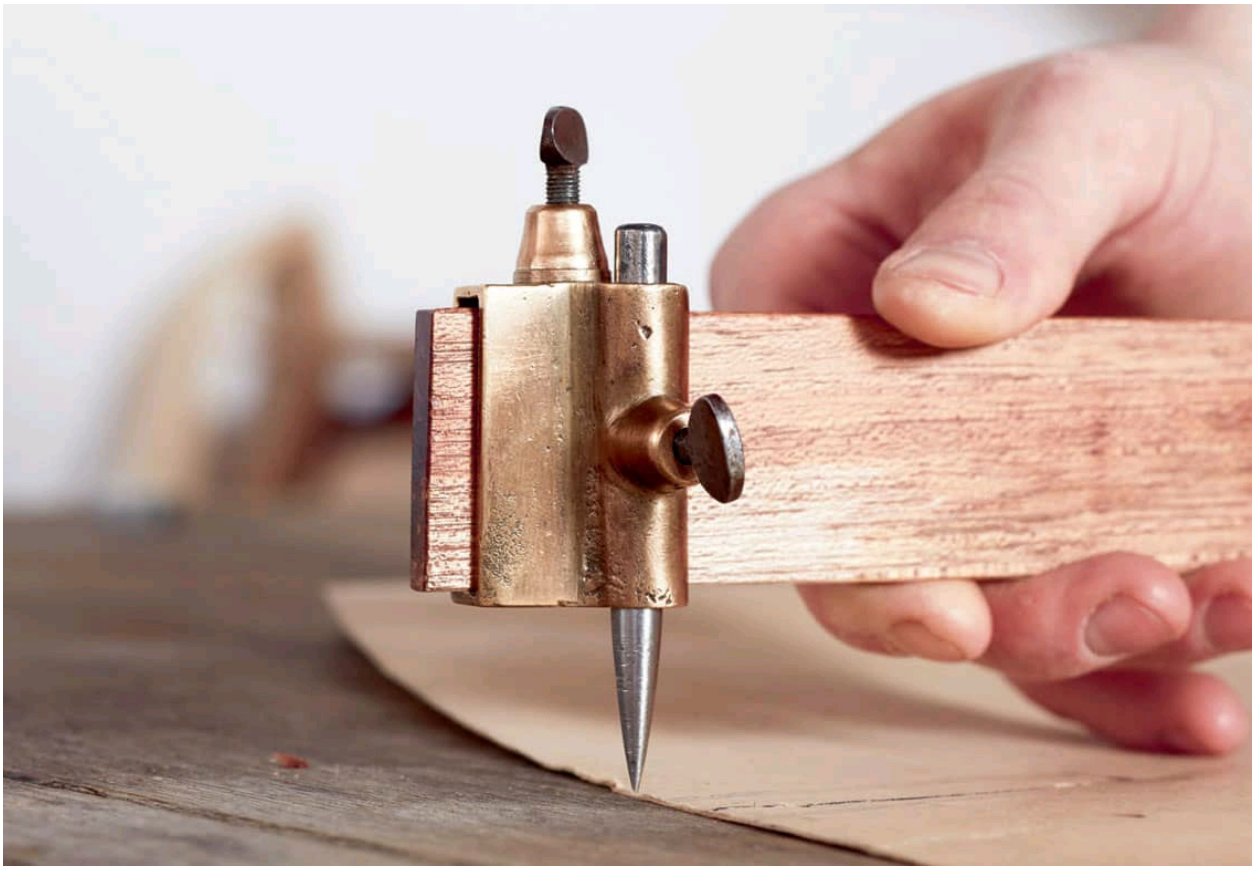
The base can be made from several planks joined together or a solid board of timber. If you use planks, then it can be thinner timber, 15–20mm ($^5/_8$–$^3/_4$in). If you use a single piece, then 25mm (1in) should be adequate to prevent it warping too much. The base should be as large as possible, depending on the piece of leather you have. A bend of bridle leather usually measures around 1500mm (59in), therefore your base should have a diameter of around 450–480mm (17 $^3/_4$–18 $^3/_4$in). Make sure your base has been planed and sanded smooth. Either have one made by a woodworker, or use a trammel compass and protractor and make one yourself. Find the exact diameter and then cut two notches, one at each end, measuring 50mm (2in) wide and 10–15mm ($^3/_8$–$^5/_8$in) deep. This will allow for the lacing ends to sit without any impediment.

02. Make base rim

Take a round knife or blade and put a straight edge along one edge of the leather. Use a strap cutter or plough gauge to cut a 15mm ($^5/_8$in) thick strip. Cut one end straight at 90 degrees. Take this strip and, without putting tension on it to stretch it, wrap it around the base and mark the point where the tips meet. Cut the strap to length till the strip fits neatly around the base. This will be the true circumference of the basket when finished. Set aside for the base rim, when you will stitch in on the inside to create a lip for the base board to rest on.

03. Make template

Measure the length of the strip, take this measurement and halve it. This will be the width of each panel. Now make the template, referring to the one in the diagram. On a piece of card, draw a shape that is one panel width wide and 550mm (21 $^{5}/_{8}$in) high. Mark a centre line from top to bottom. Using a set of trammel compass points or similar, set to the height of the template, put one point at the base of the centre line and draw an arc from the centre of the top out to the edge on both sides. You should have a nicely curved arc. If your height is 550mm (21 $^{5}/_{8}$in), the new length of the sides should be 395mm (15 $^{1}/_{2}$in). Mark the handle placements and punch these four holes. Take dividers and score a line set 12mm ($^{1}/_{2}$in) on either side of the template. Starting at the bottom edge, mark in 25mm (1in) increments to the top. The last one may need to be shorter – around 22mm ($^{7}/_{8}$in).



04. Cut leather

Transfer the pattern for the body of the basket to the leather. Mark all the points but don't punch the holes until you have cut the shape out carefully. After the shape is cut and the holes punched, bevel and burnish the edges. The top sides should be bevelled on both the top and bottom edges.

Cut two pieces of leather measuring 380 × 50mm (14 $^{3}/_{4}$ × 2in). These will be attached on the reverse of the lacing on the inside of the basket, to stabilize the joins. Either have pieces sent to be split down or use a block plane with a sharp edge to plane the thickness of the bridle down to around 2mm ($^{1}/_{16}$in); this will give a more refined finish. Planes can work well with practice. If you have some other thicker leather that would work, use that instead.

05. Make and attach handles

Cut four strips measuring 20mm ($^3/_4$in) wide and 450mm (17 $^3/_4$in) long. Starting at each end, punch centred holes with a 4mm ($^3/_{16}$in) hole punch at 10mm ($^3/_8$in)and 60mm (2 $^1/_4$in). Bevel the top edges all around. Place each strip face down and mask off each end to a length of 80mm (3in). Glue the unmasked middle sections then peel off the tape and attach the pieces. Hammer to set the adhesive. Take a pricking iron (5–7 stitches per inch) and mark along the centre, starting and finishing 80mm (3in) from each end. Place the handle in the clamps and stitch with waxed linen thread. Burnish the handle edges. Take 8 copper rivets and pass them through all three layers, with the heads on the outside. The handles will be stiff at first so you may want to flex them gently before you fit them. Set the rivets with the rivet setter and hammer.

06. Join panels

Set your dividers to 8mm ($^5/_{16}$in) and score a line along the bottom edge on both panels. Using the pricking iron, punch along the lines to mark out the stitches. Now turn both panels grain side down and score a line inset 25mm (1in) along the vertical sides. Put some masking tape on the outside of the line and sand the inside exposed area. Glue these sections. Glue one of your pieces of the 2mm ($^1/_{16}$in) thick leather on the reverse and, when tacky, attach it face up to the glued edge of the panel. Use a bone folder and hammer to fix the glue strongly. Repeat this on the remaining panel and strip.

Place the panels grain side up. Carefully take one panel and butt the length of a side edge against the reciprocal edge of the other panel. Lay in both from above, coming in at a 45-degree angle. Push as tightly as possible and hammer to set the glue. Flip over and butt the last pair of edges together as closely as possible. Place a spare piece of leather between the two sides and hammer to set all the joins. The basket should now be able to stand.

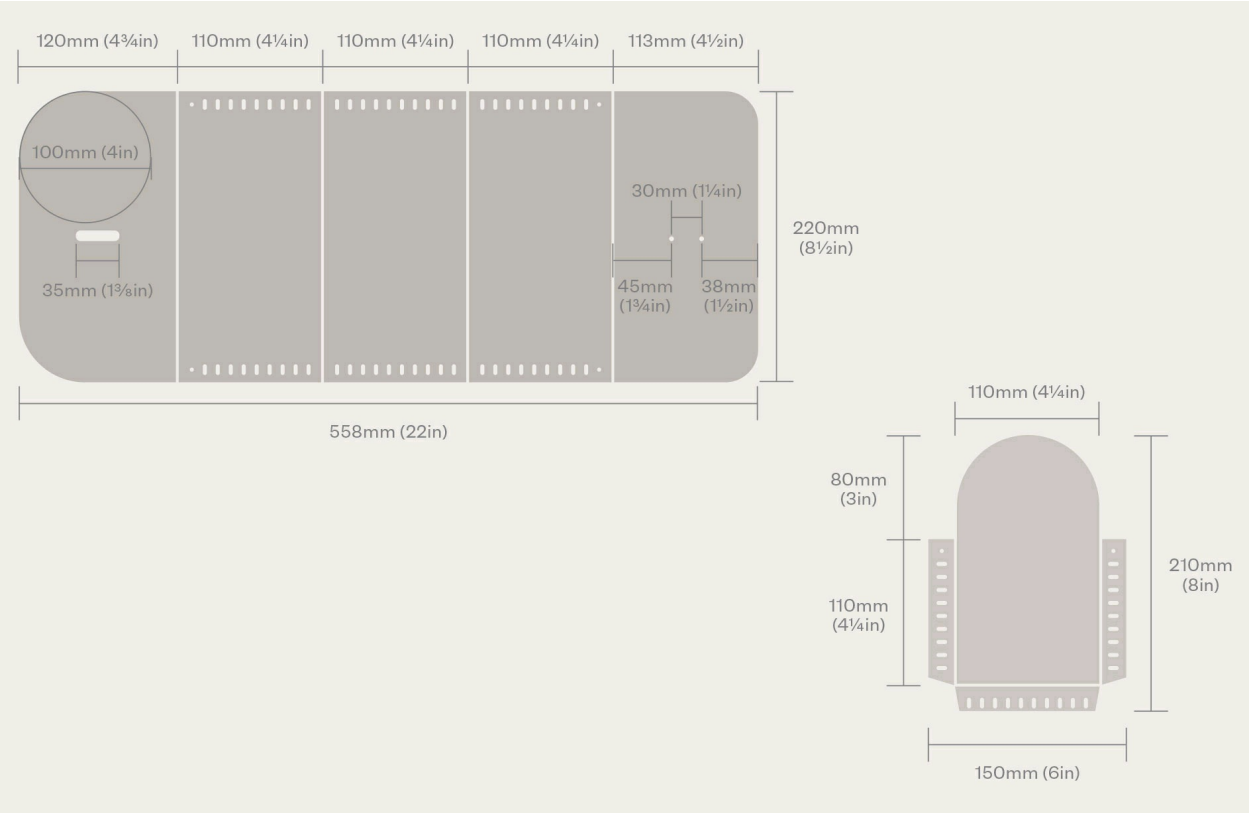
07. Lace up sides

Put the basket on its side (joined edges on top) and place a mat or block in between the two sides. Using the 4mm ($^{3}/_{16}$in) hole punch, punch again through the lines of holes along the sides of the panels, cutting through the leather reinforcements on the back. Take the two lengths of lace. You can use a small plane to thin the leather lace to make it manageable to lace with, otherwise it will be too bulky. It needs to be around 2–2.5mm ($^{1}/_{16}$in) thick. Using the cross-lacing technique, start from inside and work your way down. When you reach the end, you should have eight crosses on the outside and seven on the inside. Tie inside with a reef knot and set flat. Repeat on the other side.

08. Set in base rim

To make the inner rim on the inside of the base, take the 20mm ($^3/_4$in) strip you used to measure the circumference. Place it on the inside of the basket along the base and trim it to length so both ends meet. Now sand the basket 20mm ($^3/_4$in) inside along the base edge and also on the reverse of the strip. Glue and place in the basket. Hammer to set. Take the awl and needle and, with the basket on its side, carefully stitch around the base along the stitch lines made previously. Bevel and burnish the bottom edges when done.

Washbag (Dopp kit)



So many of our cosmetics now come in plastic packaging or are made with synthetic materials. This leather washbag is a classy, durable case that provides a natural counterpoint. The woven construction is strong and hard-wearing. The simple loop fastening has a great sliding action and provides a nice, clean look to the top closure. You can use a simple leather cord or a Sam Browne stud if preferred. If you travel a lot, then this will become a much-loved companion over the years. Just try not to get it too wet, to protect the leather.

Materials

- Card for template
- 2–3mm ($^1/_{16}$in–$^1/_8$in) vegetable-tanned leather
- Gum tragacanth, edge coat or wax
- Bridge loop, sight screw studs and backplate
- 6m ($^1/_4$in) hollow rivets

Tools

- Round knife
- Metal ruler
- Strap cutter
- Scalpel
- Awl
- No.1 bevel edge tool
- Burnishing cloth or tool
- Skiving knife
- Round hole punch set
- 8mm ($^5/_{16}$in) oblong punch or 5–6mm ($^1/_4$in) circular hole punch
- Rivet setting tools
- 25, 32 or 38mm (1, 1 $^1/_4$ or 1 $^1/_2$in) oblong punch, depending on your hardware

01. Create templates, cut and mark

Create card templates for the body piece and side pieces according to the diagrams. Lay these out on the leather and mark around each piece using a scratch awl. Laying a weight on the templates will help keep them flat. Transfer all the marks for the holes and the position of the fastenings to the leather, then cut out carefully. Remember to put a round hole, not an oblong one, at each end of the rows of lacing. This is for a rivet.

Cut two of the side pieces. Punch out the holes using a 4mm ($^3/_{16}$in) round hole punch and an 8mm ($^5/_{16}$in) oblong punch. The oblong punch should be held so that it runs at 90 degrees to the edge. To create the hole for the bridge loop, take an oblong punch appropriate to the size of bridge loop you have, place vertically over the mark and punch through. (You can use a 6–7mm ($^1/_4$in) round punch and join two holes with a knife if you don't have this tool.) This hole must pass comfortably over your bridge loop; work out the dimensions before transferring them to the final piece.

Tip: If you feel confident with a skiving knife, you can skive the edges of the side panels. Move from the start of the side tab outwards and take 0.5–1mm ($^1/_{64}$–$^1/_{32}$in) off the thickness. It is not essential for this design, but will allow for easier folding.

02. Make strap

Cut a strap of leather measuring 165mm long × 20mm wide (6 $^{1}/_{4}$ × $^{3}/_{4}$in) and punch a hole at one end, 10mm ($^{3}/_{8}$in) in from the end. Bevel the strap on both the top and bottom edges with a No.1 edge tool then burnish. Bevel all around the top grain edges of the body and side panels and use gum tragacanth, edge coat or wax to burnish to a polish with a canvas or denim cloth. Attach the strap with a rivet.

03. Secure bridge loop

Now you are going to attach the bridge loop. There must be enough clearance to get a strap through your bridge loop once the front flap has been placed over, so check this on tester pieces before you attach it. Place your bridge loop so that it lies lengthways along the body at this mark and either punch the holes for the screws or cut the slits for the legs (depending on the hardware you have) so that each hole or cut is exactly either side of the centre mark. If you are using a brass belt loop instead, then mark its position and stitch a piece of holding leather over the back of the keep loop, making sure your stitching is close to the edge of the metal, to prevent it from twisting side to side.

Tip: If you don't have or want any hardware, then use a leather keep loop around 20mm (3/4in) wide and stitch it in the same place as the bridge loop. Cut slits in the same positions as you would for the bridge loop for the ends, before either riveting or stitching into place from the inside. You will have to run some tests to get the right length.

04. Attach side panels

Now cut two strips of leather to match the 8mm ($^5/_{16}$in) oblong holes. The strips must be the same width and not narrower, preferably touching the sides when you lace them through. Punch a 3–4mm ($^1/_8$–$^3/_{16}$in) hole at one end of each strip, leaving 5mm ($^1/_4$in) on the end to prevent tearing.

Flip the body over so the grain side is face down. Now take one of the sides of the case, and place face down also. Align the tab. Overlay the hole in the strip, with the strip running in the same direction as the other two pieces and rivet together. If you are using copper rivets, place the head on the outer side of the case.

Using pliers to get you started, start lacing from the back and keep the grain facing in the same direction – upwards – all the time.

Tip: Take the end of the strip and taper to a fine angle so it will pass through both layers and can be pulled through more easily. You can also skive the tip if you need to.

05. Continue lacing

Pull the lacing taut until you feel resistance and then stop. You mustn't stretch the leather too much. Keep looking at the lacing strip to check it isn't twisting. Take care on the corner bends. You will have to push the tabs in and hold them flat to get the maximum strength in the join. Continue lacing in and out until you reach the last hole. Repeat the lacing to attach the second end section.

06. Finish lacing strips

You will be left with some excess on the lacing strips. Align the strip behind the last hole on the case and, using the scratch awl or pointed tool, mark a point on the front face of the lacing strip through the hole. Peel back the two layers of leather and punch a 3–4mm ($^{1}/_{8}$–$^{3}/_{16}$in) hole by placing the case on the corner of a plastic block or cutting mat. Now rivet the three layers together and trim the excess.

Woven bench

Drawing from the beautiful functionality of the Shaker tradition and the clean lines of Scandinavian mid-century furniture, this bench is simple to make and allows for endless design potential in the weaving process. You can buy the wood pre-turned, from a timber specialist, or simply buy the squared timber lengths and ask a wood turner to round them. If you opt for the latter, you may want to drill the holes first. The frame is overall a simple construction and the bench is lightweight and easy to move around. It serves well at the foot of a bed or is perfect in the hallway. The thinner the straps of leather, the tighter the weave. I have opted here for wider straps to give a more graphic aesthetic; this provides a looser weave with a seat that will dip with time. This design can be adapted to suit both shorter and longer designs. The width of the straps cut for the weave can also be altered to provide a number of different styles. Narrow weaves may need to be bolstered with a layer of webbing.

Materials

- 12 × lengths of dowel/square-cut timber, cut to size – see diagram, shown here
- Side of leather
- Thin steel nails with flat heads (or staple gun)
- Wood glue (slow setting)
- Danish oil or natural wax

Tools

- Pillar drill with 25mm (1in) & 38mm (1 $^1/_2$in) Forstner bits
- G-clamps and quick-release clamps
- Set square

- Sash clamps
- Dovetail saw
- Strap cutter
- Hammer
- Scalpel
- Ruler

Making the bench frame

Start by creating the four legs, taking the 50mm (2in) timber and cut each piece to 460mm (18in) in length. Square the ends and sand them flat.

Find or prepare a level and straight piece of timber about 500mm ($19^1/_2$in) long and 20–30mm ($^3/_4$–$1^1/_4$in) square. Clamp it lengthways onto a flat surface. Take the 50mm (2in) legs and place each one alongside the clamped piece of timber, then draw a line with a pencil along the legs, using the edge of the timber as a rule.

Clamp or fix the legs and, on one end of each leg, draw a cross, using the line just drawn as your starting point. Place the legs back alongside the clamped timber rule and draw lines from each cross point on the end along the length of the legs, so you have four lines on each leg at 90-degree intervals. These are key to informing your drill holes.

Make a simple V block from two pieces of timber about 50mm (2in) square, cut with a 45-degree angle on them and then glued together to create the V-shaped notch. This will provide you with a simple cradle to drill the holes.

Take one pair of legs and mark along one side of each leg at points of 50mm (2in) and 150mm (6in) from the top. Turn the leg 90 degrees clockwise and then mark points at 100mm (4in) and 200mm ($7^3/_4$in) along that line.

Repeat the markings on the other pair of legs, but turn them anticlockwise and mark at 100mm (4in) and 200mm ($7^3/_4$in).

Set your 38mm ($1^1/_2$in) Forstner bit into the drill and clamp the first leg into place. Drill the markings at 50mm (2in) and 100mm (4in) to a depth of 30–33mm ($1^1/_4$–$1^3/_8$in) (a minimum of 25mm/1in is required). Repeat at each of those markings on all four legs. Swap to the 25mm (1in) Forstner bit and drill the markings at 150mm (6in) and 200mm ($7^3/_4$in).

Sand the ends of the other eight dowel pieces until they fit snuggly into the holes made in the legs. They shouldn't wobble, but should slide in with a little bit of effort. Run a dry fit and make adjustments until the frame and joint angles are all 90 degrees. Use a set square to check. All the dowels need to go into the full depth. When satisfied, glue the shorter lengths of 400mm ($15^3/_4$in) and their corresponding holes into both sets of the legs. Clamp ona flat surface and leave to dry.

Once dry, glue the ends of the longer 1000mm (39in) dowels and their corresponding holes and then clamp the frame lengthways, applying even pressure on each joint. Work quickly and make sure the angles are all 90 degrees. Wipe away any excess glue with a damp cloth. Gluing is the most difficult part of the build, and particular care should be taken to avoid producing an uneven frame.


2 x
1000mm
(39in)
38mm (1½in)
2 x
400mm
(15¾in)
38mm (1½in)
2 x
1000mm
(39in)
25mm (1in)
2 x
400mm
(15¾in)
25mm (1in)
2 x
460mm
(18in)
50mm (2in)
100mm
(4in)
150mm
(6in)
200mm
(7¾in)
50mm (2in)
2 x
50mm (2in)

01. Cut straps

To make the leather weave, calculate the width of the straps needed, factoring in the gaps in between. You will need roughly 20–30mm ($^3/_4$–1 $^1/_4$in) space in between. Place dummy pieces along the length and space them evenly to aid you in this. Then carefully cut all the straps needed and cut to length, giving yourself 200mm (7 $^3/_4$in) more than you need. You will need this excess to grab hold of when pulling them taut on the frame. Turn the bench over and mark out the edges of each strap on the underside of the long sections.

02. Fix short straps to bench

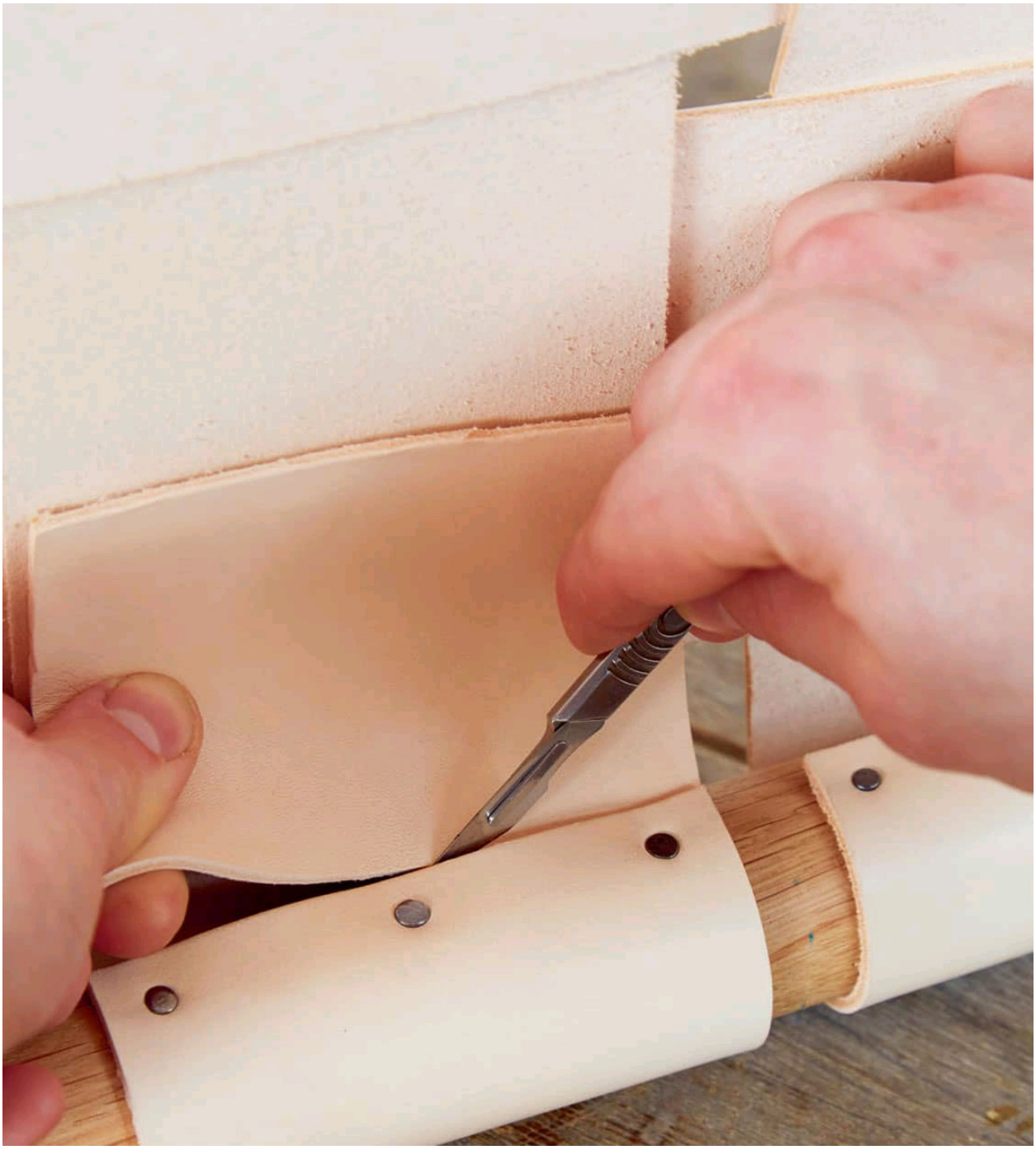
Now place the bench on its side and lay the first strap of leather grain side up on the inside of the long sections of 1000mm (39in). Depending on the width of your straps, you will need either 1, 2 or 3 nails per strap. Use a hammer to set the nails on the inside so that the nails are struck at 90 degrees to the wood. A thin nail 20–25mm ($^3/_4$–1in) works best. Otherwise use a heavy-duty staple gun. Set the centre nail then the ones either side, and keep all spacing even.

03. Keep even spacing

Work down the section of timber, maintaining all gaps evenly. The key to this is consistency, as it will look awkward if the gaps are different. If you are doing a tighter weave with narrower straps, leave smaller gaps so the weave can be stronger and tighter to reduce stretch.

04. Trim ends

Use a small ruler to score a straight line behind the nails, leaving at least 10mm ($^3/_8$in) of leather. Trim any excess with a scalpel. Turn the bench onto its feet. Pull the straps individually over the top rails as much as you can, trying to get as much stretch out of the leather as possible. This will mean it won't stretch as much when you sit on it. Pull each one over and around the rail and then lay the bench with the legs facing you and maintain as much tension on the strap as you can. Pull it up from under the rail and around until you can lay the first nail or staple in at 90 degrees, then set the remaining ones. You will have to manoeuvre your hands adeptly and keep the tension as much as possible. You may want another person to assist you.



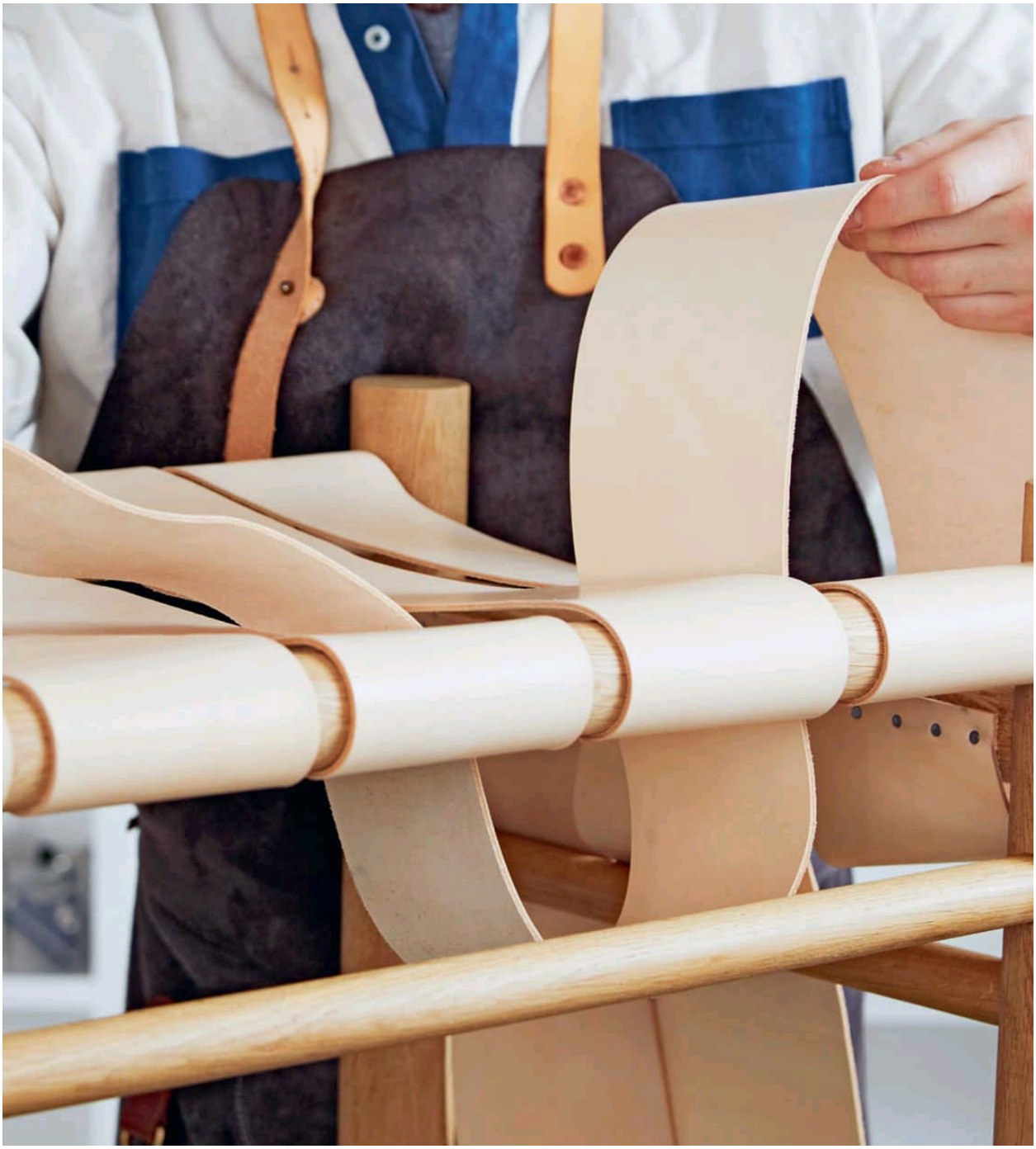
05. Attach long straps

Once all the straps across the width have been set and trimmed, move on to the longer straps. Set the bench on its end and attach the long straps as you did the shorter ones. Maintain the space evenly, even if it is different from the space between the straps on the shorter sections. Hammer the straps into place at one end.

06. Start weave

You should work out the weave pattern before you start. If you have an even number of straps (on this bench there are eight, for example), then you will have to run over and under two instead of simply weaving over and under one. You will be able to produce some interesting outcomes. If you have an odd number, then you can simply weave over and under without creating a pattern.

Run each long strap individually over and under each width. As before, stretch the leather by pulling taut. The leather will slip sideways due to the tension, so keep it running in a straight line as much as possible. Pull taut at the end of the line once woven in and place the bench end up to wrap it over and under. Hammer the straps into place as you go. As you move down the line, you will feel the bench tightening and the surface becoming firmer.



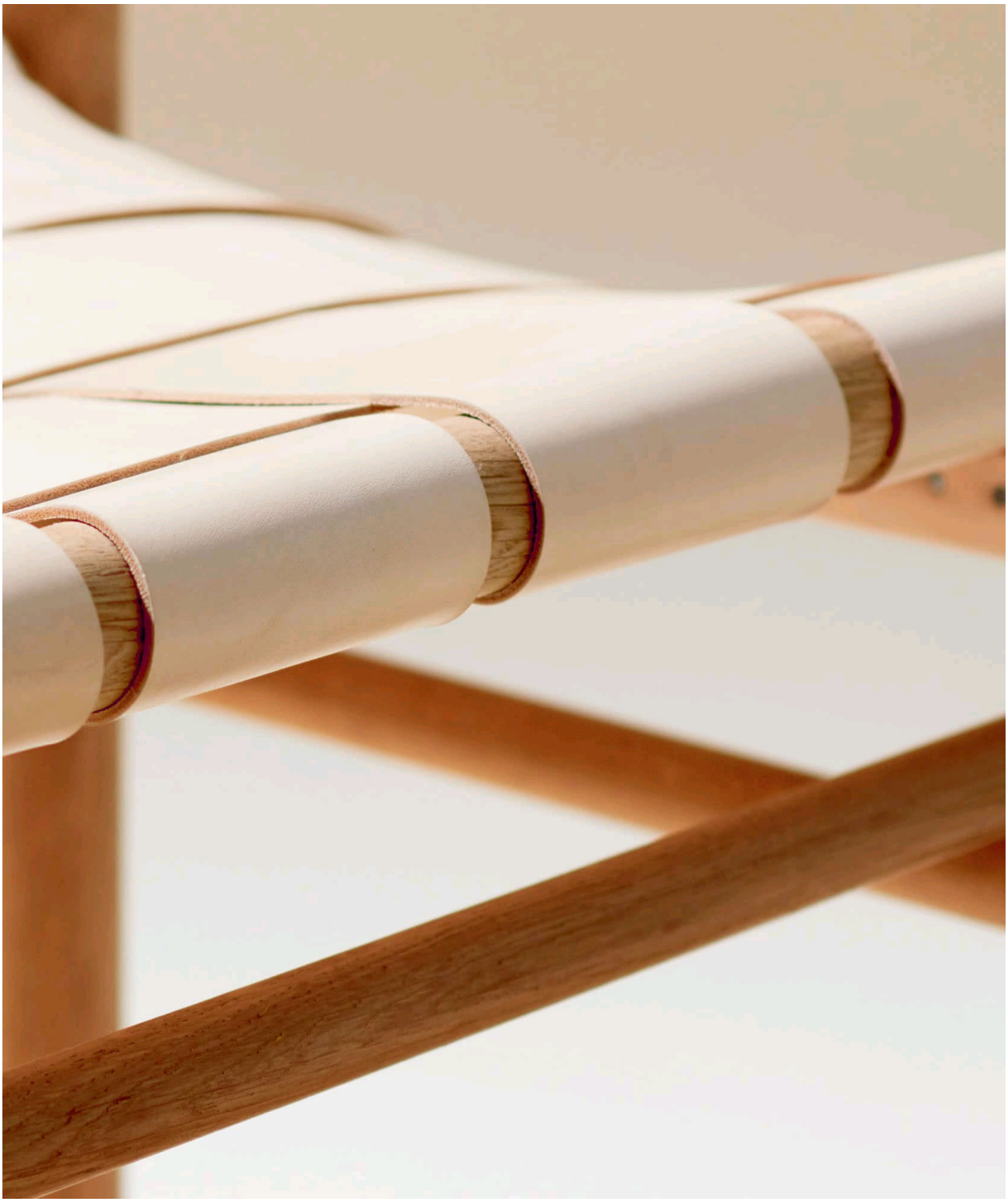
07. Maintain tension

Weave in the remaining straps, maintaining and checking your pattern all the time. Keep an even tension in the weave and test this with your hand by applying top pressure to different areas.

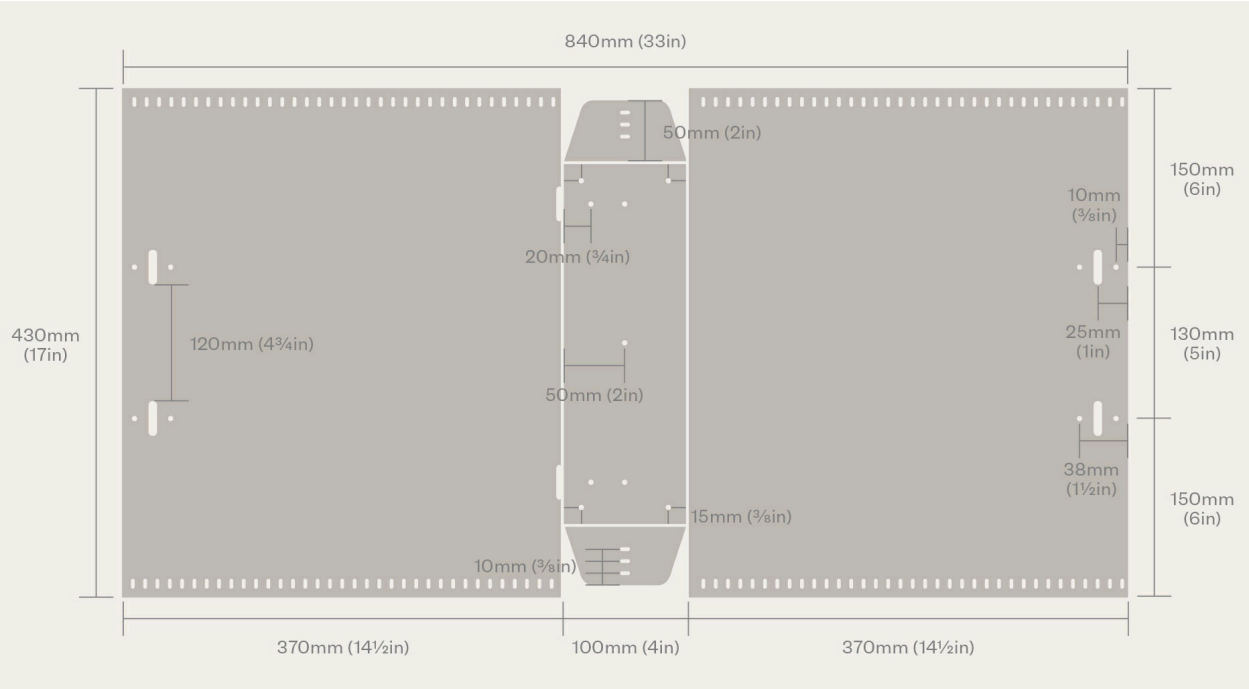
Tip: If you have a weave with more straps than this design, you will need to pay particular attention to maintaining the tension, as it is difficult and time-consuming to work backwards once the bench has been woven and set.

08. Finish bench

Cut away all the excess leather as neatly as possible and apply a coat of leather cream to put some life back into the leather after all the moving and stress it has been put under. Use a few coats of Danish oil or natural wax to finish the bench frame.



Tote backpack



Most bags perform a single function or can only be carried one way. This hybrid can be carried on the shoulder when walking, or on the back when cycling. Use a stiffer leather and it will create a firm shape that won't become misshapen or floppy over time. I have provided the basic form and construction here, however you can replace the leather cord for a simple strap. An internal pocket works well for valuable items like phones and wallets. The sides can also be glued and stitched instead of woven, if preferred. This is a great bag that is versatile as an everyday carry-all. The woven detail provides a contemporary crafted look, and can always be replaced over time, if needed. Leather cord is a much underused but fantastic material. If you buy a good length of it do experiment – it is very strong and looks fantastic on just about anything.

Materials

- Card for template
- 2.5mm ($^1/_{16}$in) structured leather, such as a stiff vegetable-tanned shoulder, side or split-down bridle leather
- Length of 6mm ($^1/_4$in) leather cord
- Copper rivets
- Hollow-cap rivets

- Contact adhesive
- 6 solid brass rings, 25mm (1in) in diameter
- Waxed linen thread & needles
- Gum tragacanth

Tools

- Round knife
- Scalpel
- Bevel hand tool
- Burnishing tool
- Hole punch set
- 8mm ($^5/_{16}$in) oblong punch
- 25mm (1in) oblong punch
- Awl
- Pliers
- Skiving knife

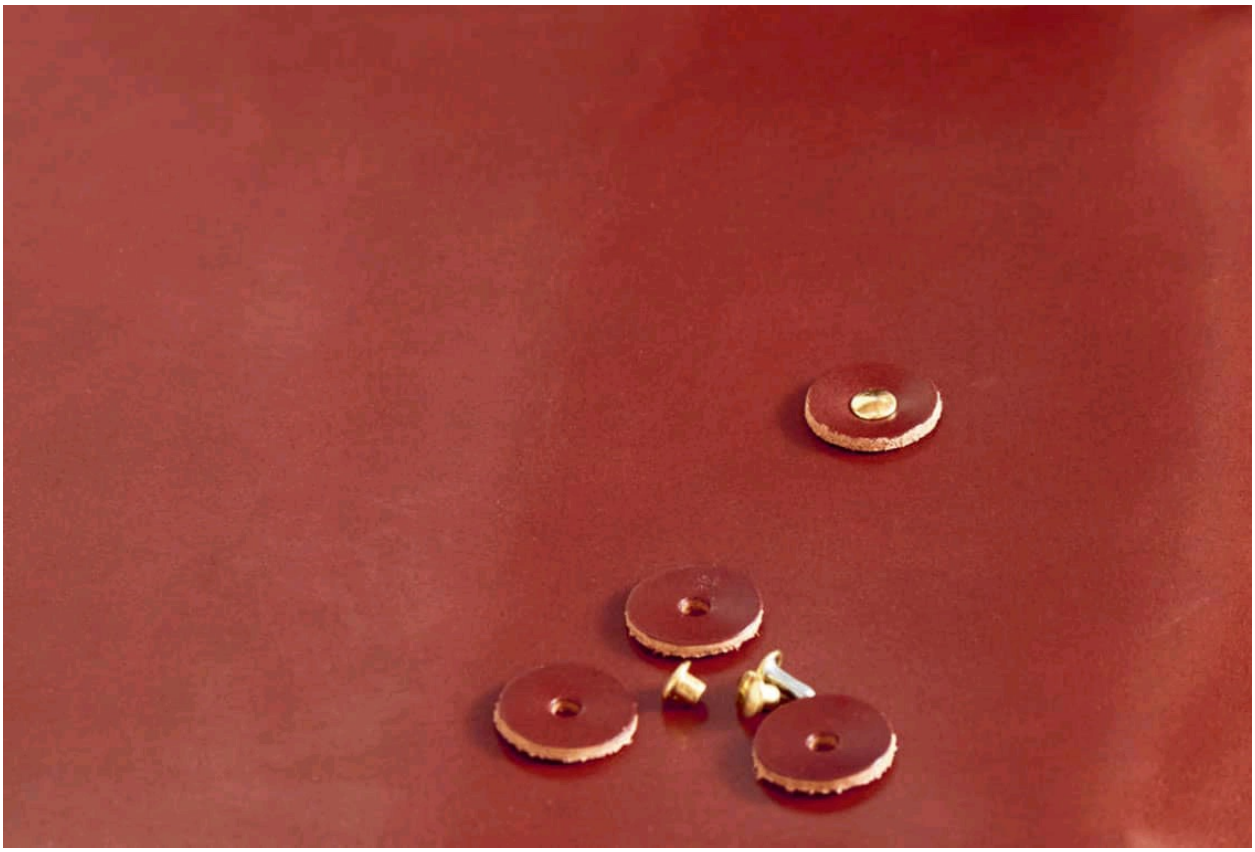
01. Cut leather and punch out

Make a cardboard template according to the diagram. Punch all the holes using a 4mm ($^{3}/_{16}$in) hole punch and 8mm ($^{5}/_{16}$in) and 25mm (1in) oblong punches. Lay the template out on your leather. Ideally, you want to cut the body either vertically on the hide or horizontally, but not diagonally, as this will lead to different grain structure in the piece and a variation in fibre density. Transfer all markings to the leather – trace the oblong holes using a scratch awl and mark the round holes with a point. Bevel and burnish all the top edges.

Punch out all the holes and slots, using the appropriately sized round or oblong punch. There should be 35 oblong holes on each side and three on each central side tab. All should have a 10mm ($^{3}/_{8}$in) space in between.

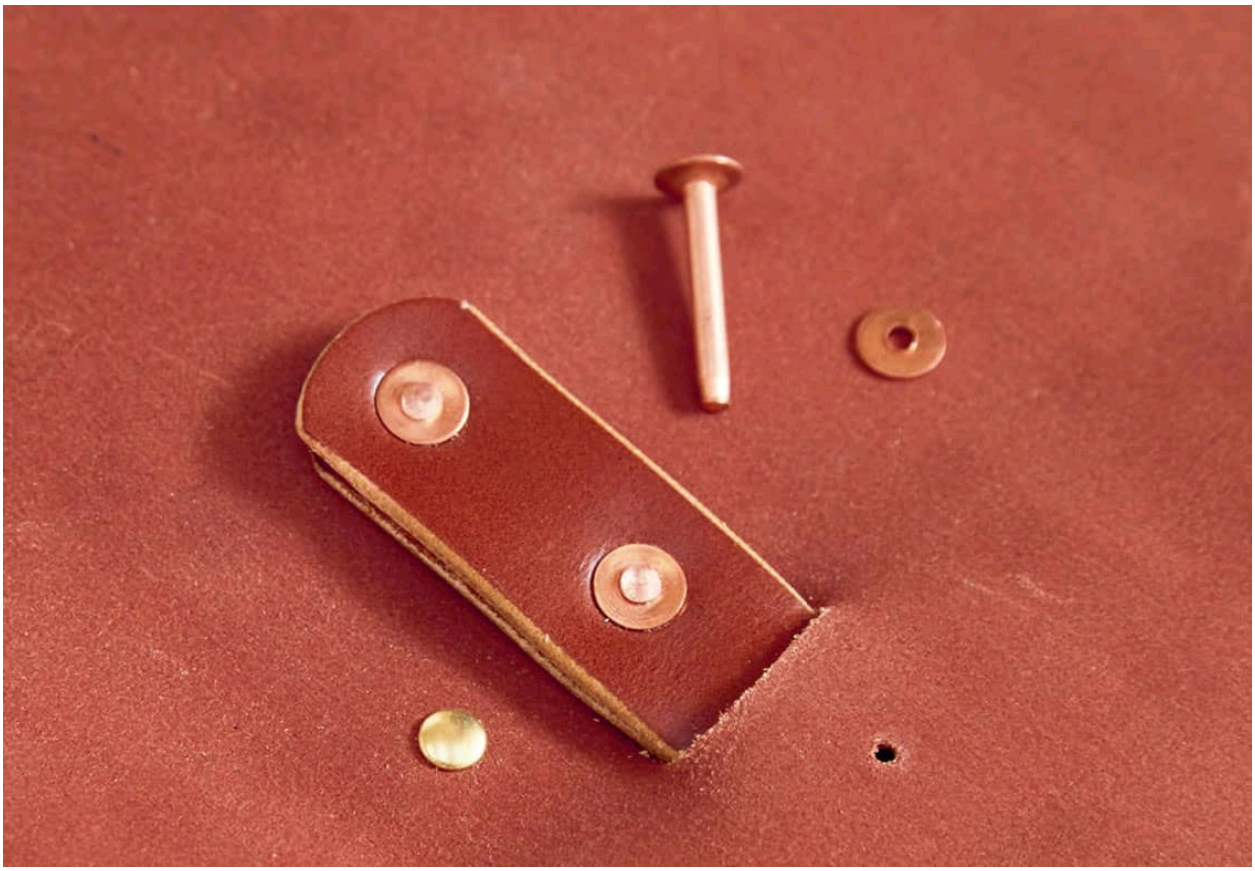
02. Make base studs

Using a large hole punch of around 20mm ($^3/_4$in), create five thick leather discs and then punch a 4mm ($^3/_{16}$in) hole in each. Place a rivet through each one and attach through the five holes in the central base. These will form soft feet for the bag to rest on and protect the leather from scuffing.



03. Attach base brass rings

Cut a pair of straps measuring 25 × 155mm (1 × 6 $^{1}/_{8}$in) and punch 4mm ($^{3}/_{16}$in) holes along the middle of the strip at points of 10mm ($^{3}/_{8}$in), 38mm (1 $^{1}/_{2}$in), 115mm (4 $^{1}/_{2}$in) and 145mm (5 $^{3}/_{4}$in). Bevel and burnish the top and bottom edges. Take the straps and pass them through the brass rings. Fold over and slip the ends into an oblong slot on the base and rivet through the two holes in the base. Repeat for the other base ring. If using copper rivets, keep the washer inside the bag.



04. Make straps for top brass rings

Cut four pieces of leather, each measuring 25mm wide × 135mm long (1 × 5 $^{1}/_{4}$in). Round the edges using a strap punch or scalpel and burnish the edges. Punch the same hole placements as for the base ring straps.

Take four brass rings approximately 25mm (1in) in diameter. Pass the four straps of leather through the rings and slide one end of the strip in through the oblong slot from the front side. Set and peen two copper rivets on each strap and ring, keeping the base of the rivets on the outside for a cleaner look. Make sure there are no burrs left from the peening.

Tip: If you prefer brass or antiqued hollow rivets, then use these instead. Alternatively, you can stitch these straps to the body of the bag.

05. Begin lacing

Cut two long strips of leather 8mm ($^{5}/_{16}$in) wide. Tie a knot at one end and make sure it is secure. Taper the other end to a point, so it will be easier to pull through the holes. Now pass this tapered end through the bottom hole in one of the central side tabs, then through the lowest hole on the side that has the base rings attached to it. Then pass it through the bottom hole of the remaining side (that will be the front) and pull taut, so the sides pull up together, until the knot sits up against the inside tab. Lace the sides, pulling tight after each pass. You will make a few passes through all three layers, then move to just two as you move up the bag.

06. Tie off lacing

When you reach the last hole, you should come out on the inside of the bag. Hold taut and tie a simple knot, keeping the grain side facing in the same direction – this creates a much nicer detail. Work the knot so that it sits tight up against the inside of the bag. Trim the excess to leave you with about 38mm (1 $^{1}/_{2}$in) for adjustment.

07. Make shoulder straps and pad

Take a good length of 5–6mm ($^1/_4$in) leather cord – to work out the amount needed, take a length of string and pass it through one of the base rings, then up through the top rings on the same side and back around through the other rings. Double back until you end up at your starting point. You need to work out a length depending on your body size and shape so the bag sits on your back and hangs from your shoulder comfortably. Once you have this, add 50mm (2in) to the length needed for the leather cord.

To make the shoulder pad, fold a piece of 2.5mtm ($^1/_{16}$in) leather measuring 80 × 100m (3 × 4in). Fold the shorter length in three, overlapping by 10mm ($^3/_8$in). Glue the underside and top side of opposite ends to 10mm ($^3/_8$in). Fold, prick and stitch 5mm ($^1/_4$in) inset from the edge, down the centre.

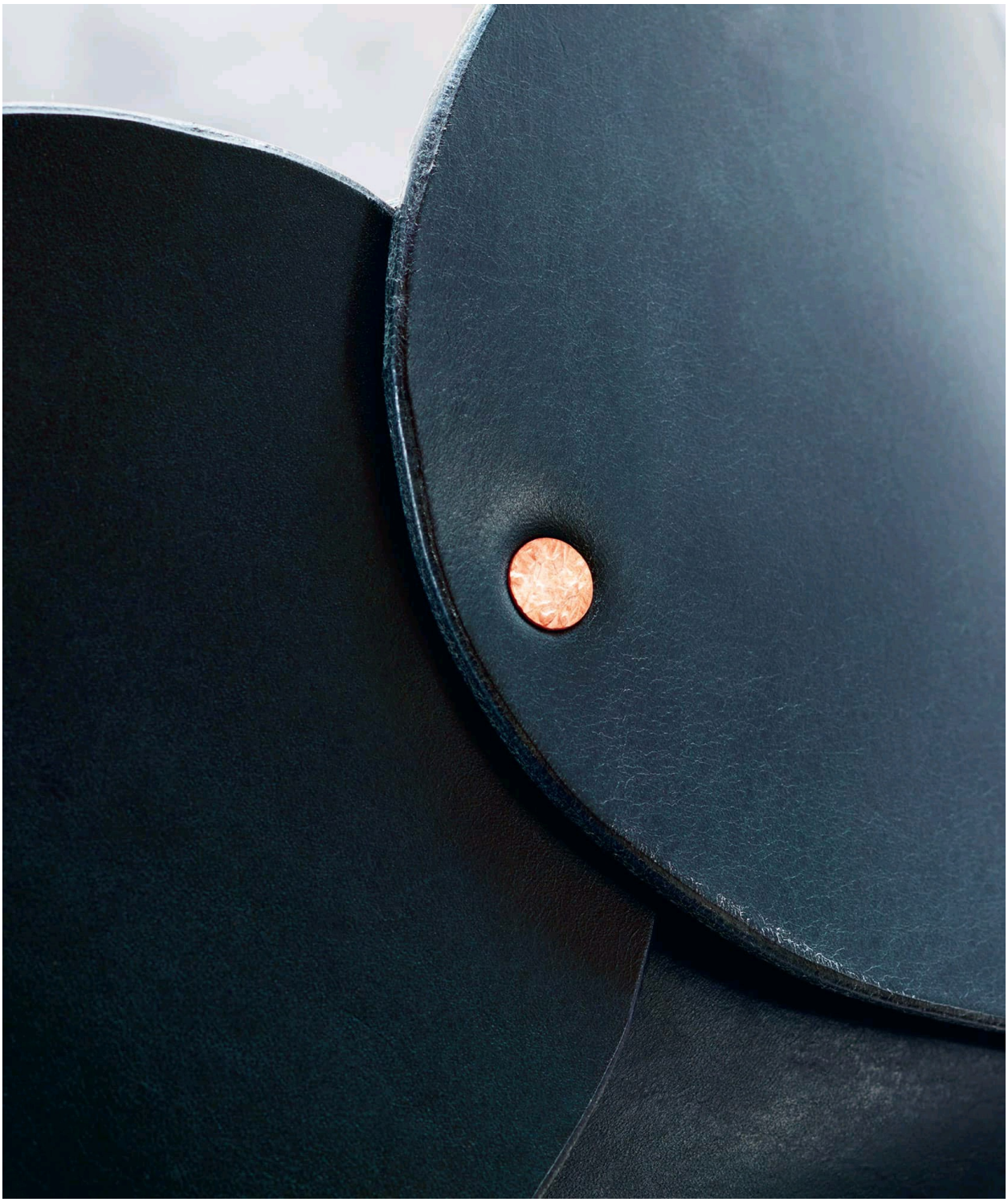
08. Secure straps

Now skive 50mm (2in) on both ends on one side so that they join to form one continuous thickness. Glue, awl and stitch through the middle. You can cover the join either by wrapping thread around the join or gluing and stitching a band of leather over it.

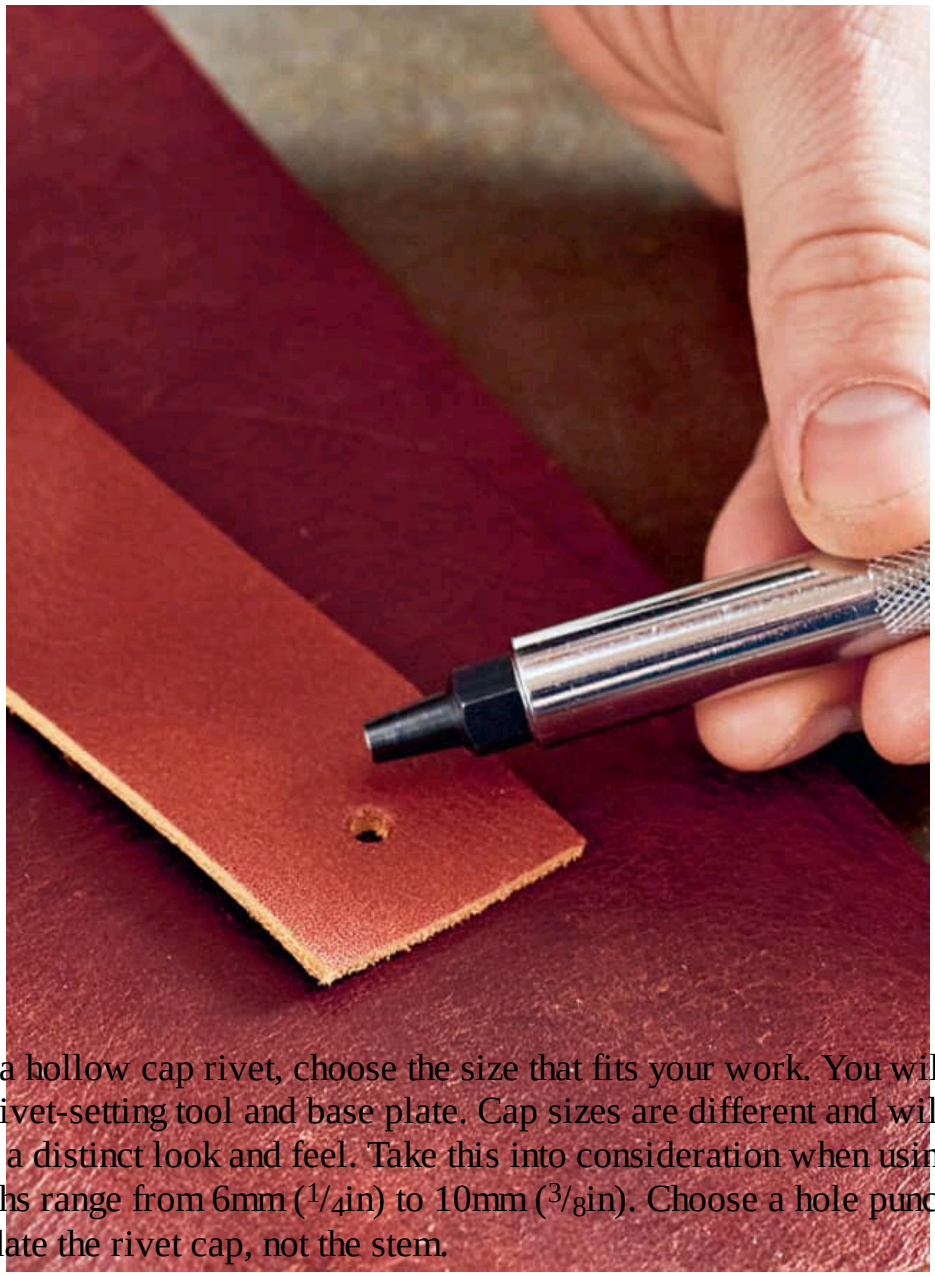
Folding and riveting

Rivets are undoubtedly the simplest means of connecting two pieces of material together. Historically they were primarily used for more industrial purposes, favoured because of their strength, durability and the speed at which they could be attached. Fire hoses were once made from heavy bridle leather during the Victorian era, with each section using copper rivets to seal the joint. Many leather goods today use hollow tubular cap rivets, as they are robust enough for domestic uses and possess a minimalist contemporary detail. Solid copper rivets are used in more heavy-duty leather goods, usually made from bridle and thicker vegetable-tanned leather. They age beautifully and look great alongside leather in small quantities.

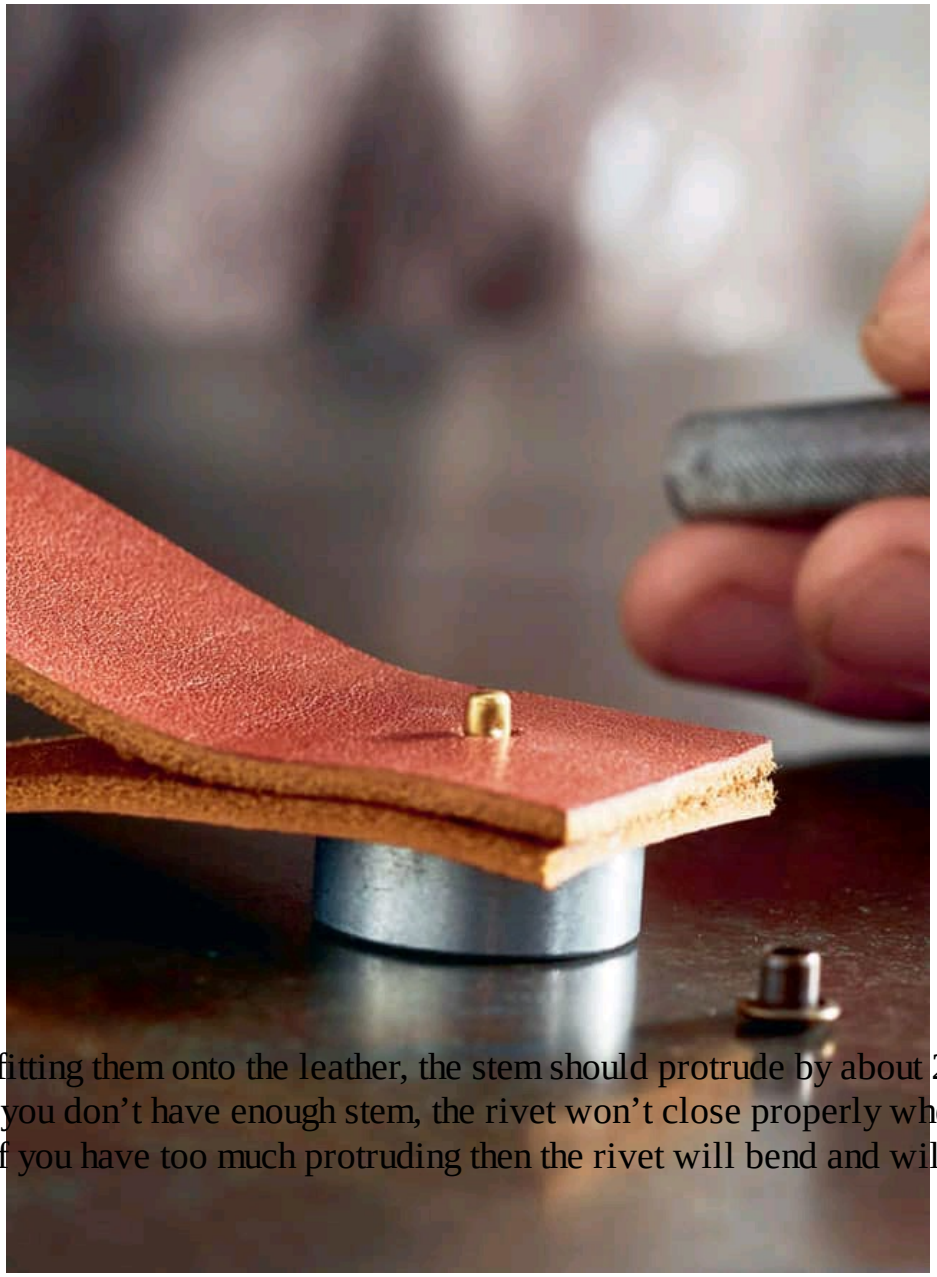
As rivets take up a small area, they can facilitate clever templates and patterns that incorporate different techniques, some borrowed from origami and packaging design. They can be used where designs involve construction details such as folding and interlocking.



Hollow cap rivet



01. To set a hollow cap rivet, choose the size that fits your work. You will need a matching rivet-setting tool and base plate. Cap sizes are different and will give your work a distinct look and feel. Take this into consideration when using them. Stem lengths range from 6mm ($^1/_4$in) to 10mm ($^3/_8$in). Choose a hole punch that will accommodate the rivet cap, not the stem.



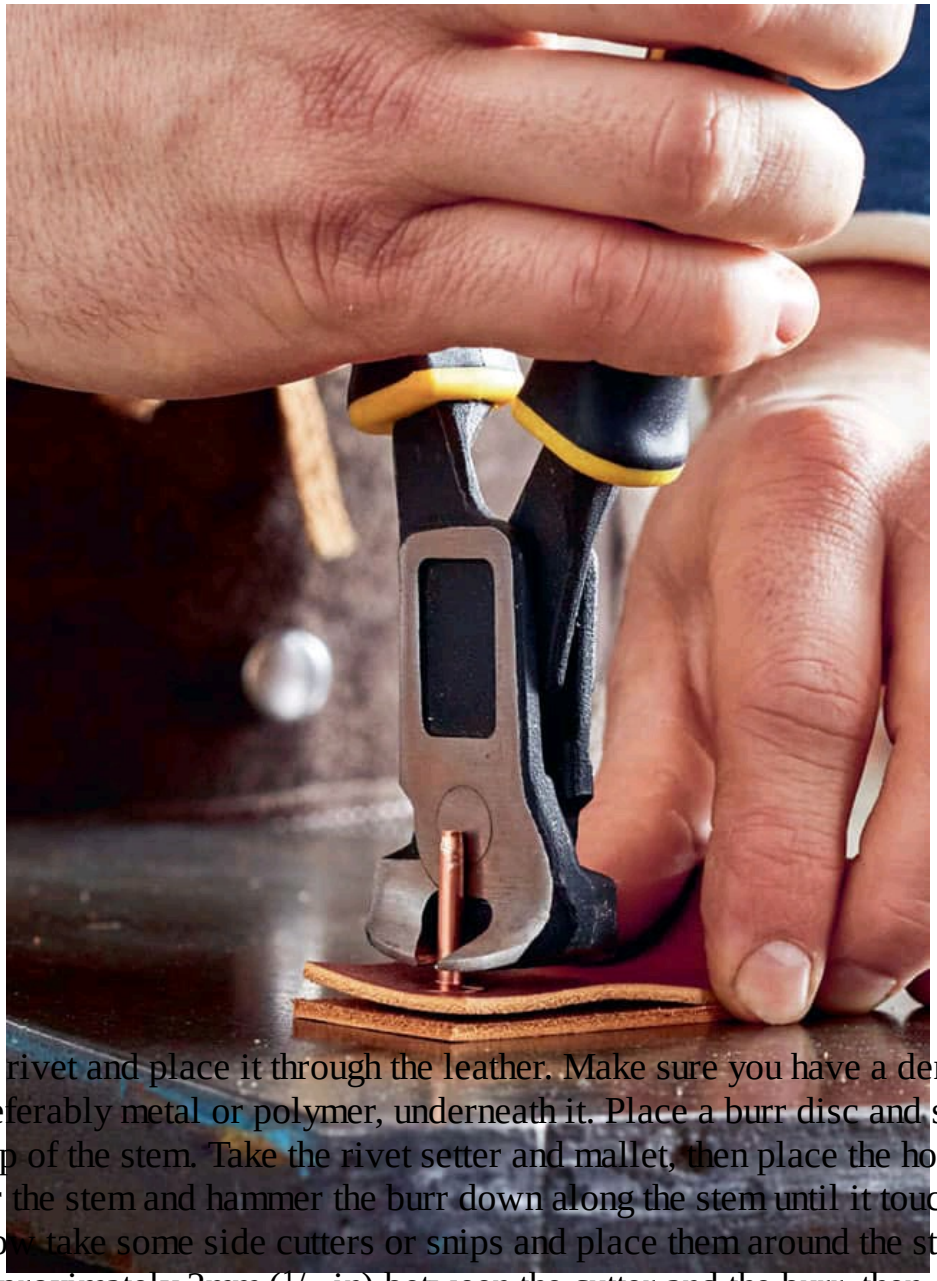
02. When fitting them onto the leather, the stem should protrude by about 2mm ($^{1}/_{16}$in). If you don't have enough stem, the rivet won't close properly when punched; if you have too much protruding then the rivet will bend and will need to be reset.

03. You will feel a small crunch inside the rivet when you set it. Once you feel this, stop. It is easy to press the rivet flat or too far into the leather. This not only looks bad, but causes unnecessary stress and could eventually lead to leather tearing around the rivet.

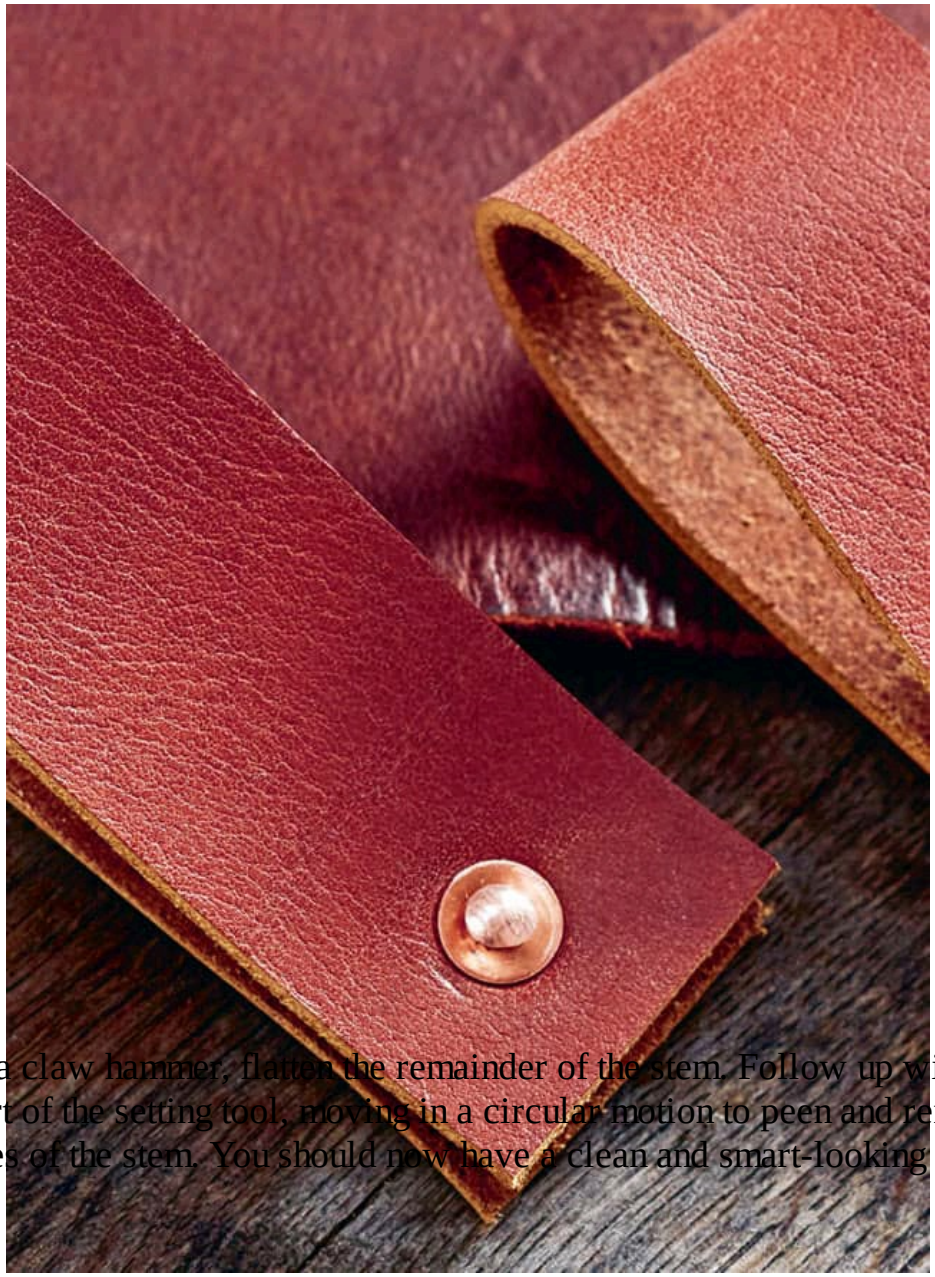
Solid copper rivet

04. To set a copper rivet, you will need a special rivet and burr-setting tool matched to either size 8, which is larger, up to size 14, which is smaller and usually found on well-made jeans. As with the hollow cap rivets, you need to make sure you have enough of the stem protruding.

The temptation with the copper rivet is to pile up lots of layers, but anything more than 10mm ($^3/_8$in) of leather will cause the rivet to buckle when setting it.

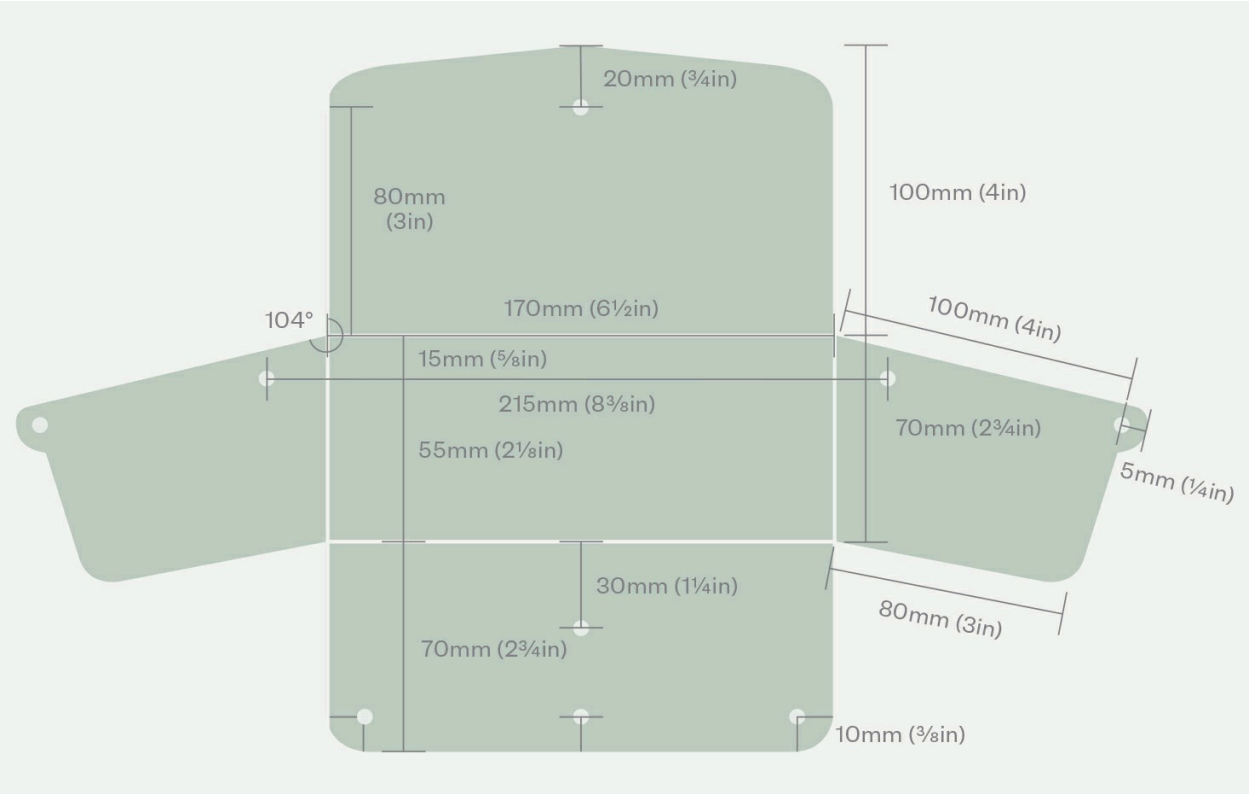


05. Take a rivet and place it through the leather. Make sure you have a dense object, preferably metal or polymer, underneath it. Place a burr disc and slide it onto the top of the stem. Take the rivet setter and mallet, then place the hole in the setter over the stem and hammer the burr down along the stem until it touches the leather. Now take some side cutters or snips and place them around the stem, leaving approximately 2mm ($^{1}/_{16}$in) between the cutter and the burr, then cut in one motion.



06. Using a claw hammer, flatten the remainder of the stem. Follow up with the domed part of the setting tool, moving in a circular motion to peen and remove the sharp edges of the stem. You should now have a clean and smart-looking rivet.

Glasses case



Usually when you purchase a good pair of glasses or sunglasses, they come with either a cheap slip or an oversized hard case. Both serve their purpose, but they will eventually break or peel due to the synthetic materials used. Part of the wonderful nature of leather is that objects created with it last much longer than their machine-made counterparts, and develop a rich character over time. This design uses a one-piece construction technique to provide structure and a clean aesthetic; it resembles an organic object, such as a pebble. Once you have the template perfected, you can make fantastic gifts – you can create a batch out of a large piece of leather in your collection. The template tessellates nicely so you can be very economical with the leather.

Materials

- Card for template
- A piece of leather 240 × 510mm (9 $^{1}/_{2}$ × 20in)
- Superglue
- Rivets

• Sam Browne stud

Tools

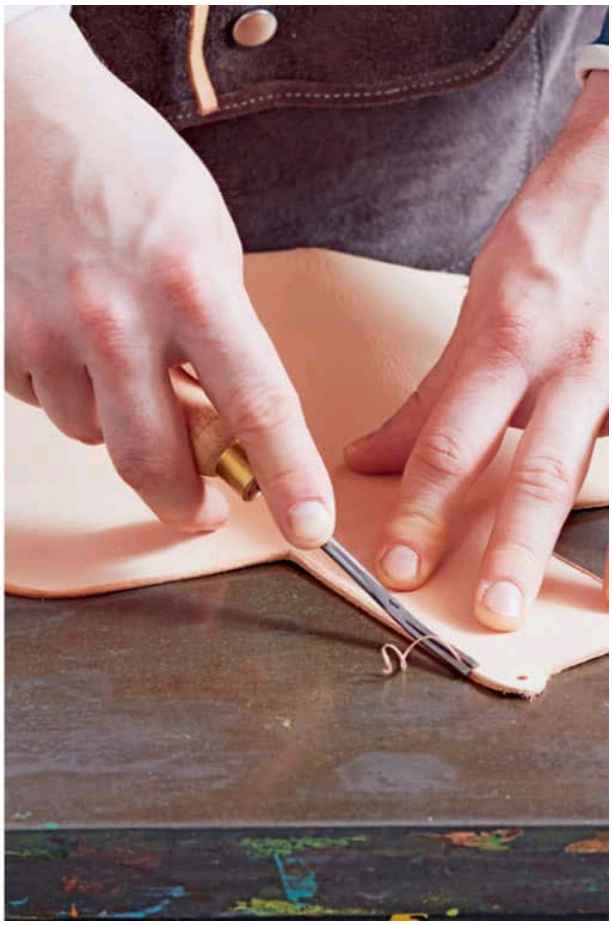
• Scalpel
• Rivet setter
• 3 or 4mm ($^1/_8$ or $^3/_{16}$in) hole punch
• Buttonhole, or pippin, punch
• Bevel hand tool
• Burnisher
• Skiving knife
• Setting tool

01. Make template and cut out

To make the template, cut out a piece of card 240mm high × 510mm wide (9 $^{1}/_{2}$ × 20in). Mark out the shape according to the diagram. Along the bottom edge and the side panels, punch 4mm ($^{3}/_{16}$in) holes at the marks. Make the Sam Browne closure hole, using a buttonhole, or pippin, punch, for the top hole and a 3 or 4mm ($^{1}/_{8}$ or $^{3}/_{16}$in) hole punch for the bottom. The angle is 104 degrees and medians the same at the top and bottom of the side panels. At the end of the side panels, join lines at 90 degrees and create a small tab with a small coin. Cut the template out, remembering to cut around the tabs on the side panels. Round the bottom corners and the angled corners on the top flap. Transfer to the leather, trace and mark all holes and cut out. Pay special attention to the inverted corners near the middle sections; cut from the corner, outwards.

02. Punch holes

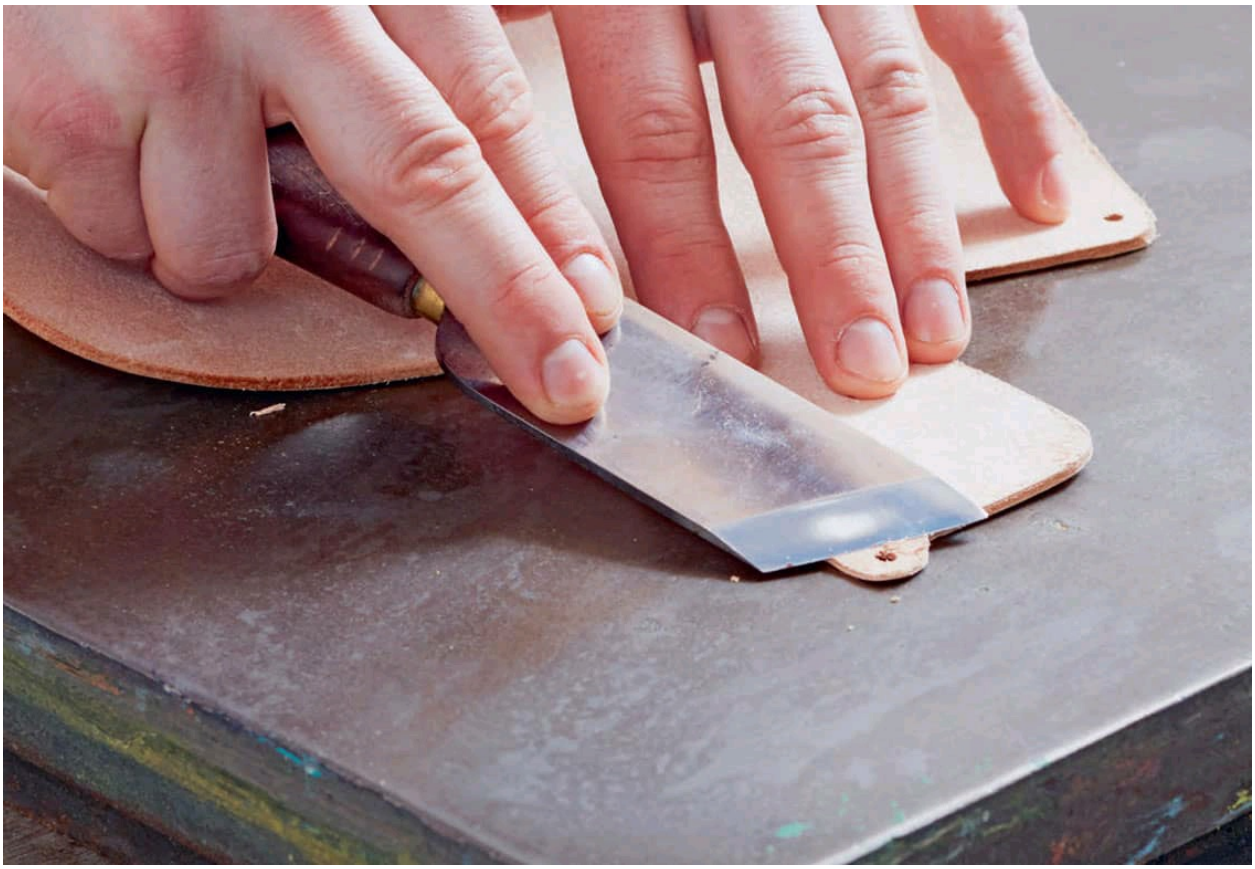
Punch all holes and marked points as accurately as possible. When using the buttonhole punch, face the punch inwards so the relief line points towards the middle. Use the correct size for your stud; they come in a variety of sizes.



03. Finish edges

Bevel and burnish both the top and bottom edges to create a rounded edge throughout. Pay special attention to the front flap, as this is the most visible area and will have most use.

Turn the case over and carefully skive the reverse of the two tabs to a thickness of about 1.5mm ($^1/_{16}$in). Don't use too much pressure or you may cut the tab off. The combination of the two skived tabs and the main body of leather should create a thickness of around 6mm ($^1/_4$in) – enough for a small hollow rivet shaft of about 6mm ($^1/_4$in) long to pass through.



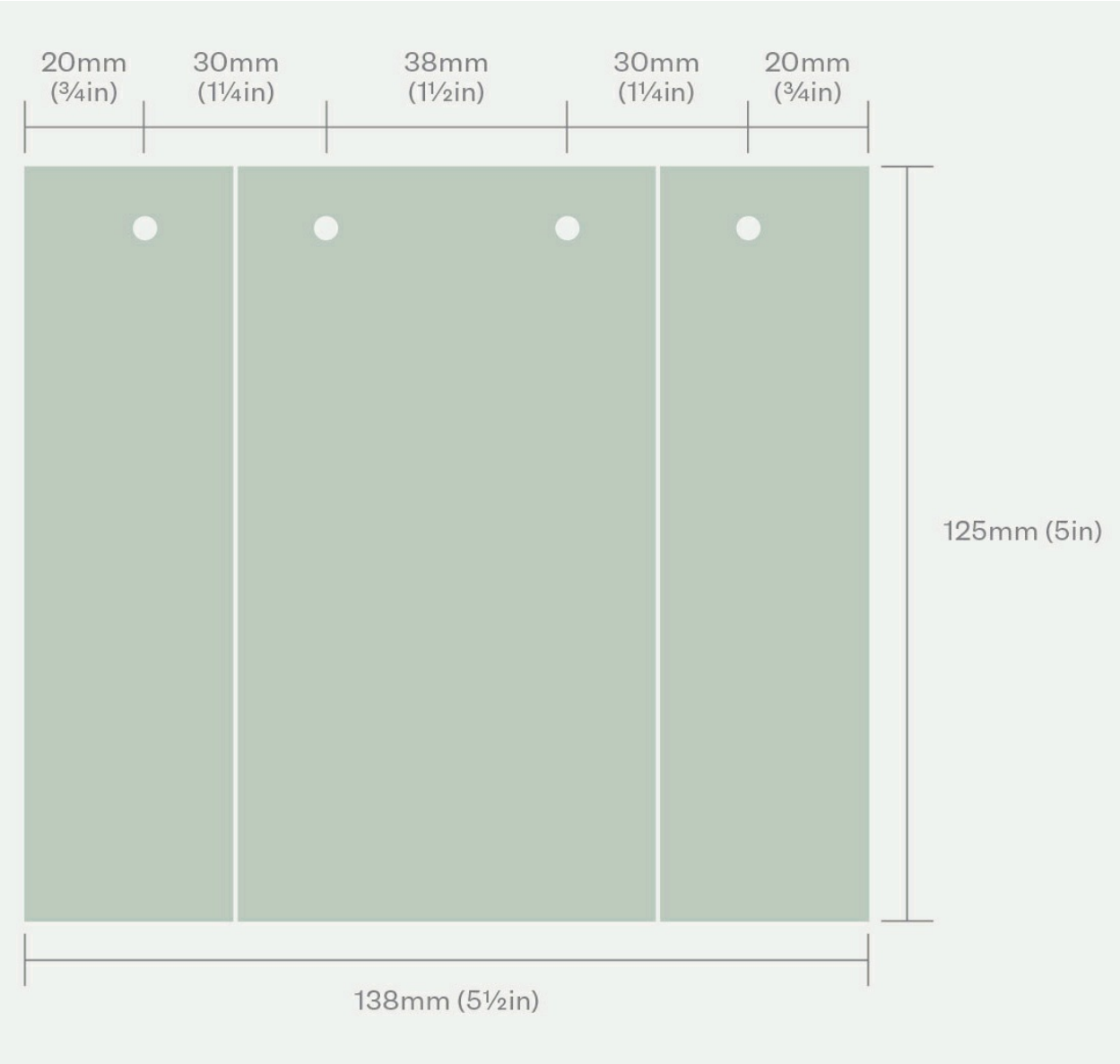
04. Fix clasp

Fix the Sam Browne stud and screw in place. You can place superglue in the cavity of the stud, but be careful to put only a small drop. Work quickly to screw in and scrape away any excess glue that is squeezed out.

05. Fold together and set in rivets

Soften the leather case by gently folding the side panels into the centre, along with the front section of the body. This will ease the pressure when riveting. Once the case sides can be folded easily, fold the side panels and place the first rivet shaft through the two side tabs from the inside, then through the front centre hole in the body. Secure using a setting tool, before moving on to the two rivets on the sides, and it will then be finished.

Key cloche



I ran through several versions of this key cloche before settling on this stitched version, as the cross stitching makes such a nice detail. Cloche, in this instance, means a bell-shaped hat or covering. Based on a traditional cowbell, it prevents keys from rattling and scratching other objects nearby and provides a wonderfully tactile covering. The keys are kept suspended through the use of toggle buttons that create friction. If you want to experiment with other materials, then horn toggles or

large beads also work well with this system. The length of lace also allows you to hang the keys in a visible place.

Materials

- Card for template
- A piece of leather 140mm wide × 125mm high (5 $^{1}/_{2}$ × 5in)
- Superglue
- Waxed linen thread & needles
- Hollow cap rivets
- Leather lace

Tools

- Knife
- Needle
- Hole punch set
- Diamond awl or scratch awl
- Rivet-setting tool
- Large hole punch/wad punch
- Hammer
- Bevel hand tool
- Burnisher

01. Cut leather

Make a card template according to the diagram. Trace it on your piece of leather and cut out. Transfer all markings to the piece of leather.

02. Awl holes

Gently score along the left and right sides of your leather with a compass set to 3mm ($^1/_8$in) and then mark along these lines at 6mm ($^1/_4$in) intervals. You can make the stitching gaps bigger, but generally you want to keep them close together as tight stitching will keep the case together. Try to accommodate any discrepancy at the end of the line by leaving at least 2mm ($^1/_{16}$in) of leather behind the marks to prevent the thread tearing through. Make the holes with a round scratch awl.

Mark positions for the holes along the top side as per the diagram. Punch out these four holes with a 4mm ($^3/_{16}$in) hole punch.

03. Stitch up seam

Measure out 8–9 times the length to be stitched in waxed thread. Thread the needles and start to cross stitch the cloche. Make a double whip loop at the top by wrapping the thread across both top holes, to hold the piece still. Pinch the top join together and work along the piece till you get to the bottom. Double loop again, then knot on the inside and apply a dab of superglue. Snip off any excess on the interior.

04. Close end

Using two 6mm ($^1/_4$in) hollow cap rivets, rivet the two shoulders at the top.

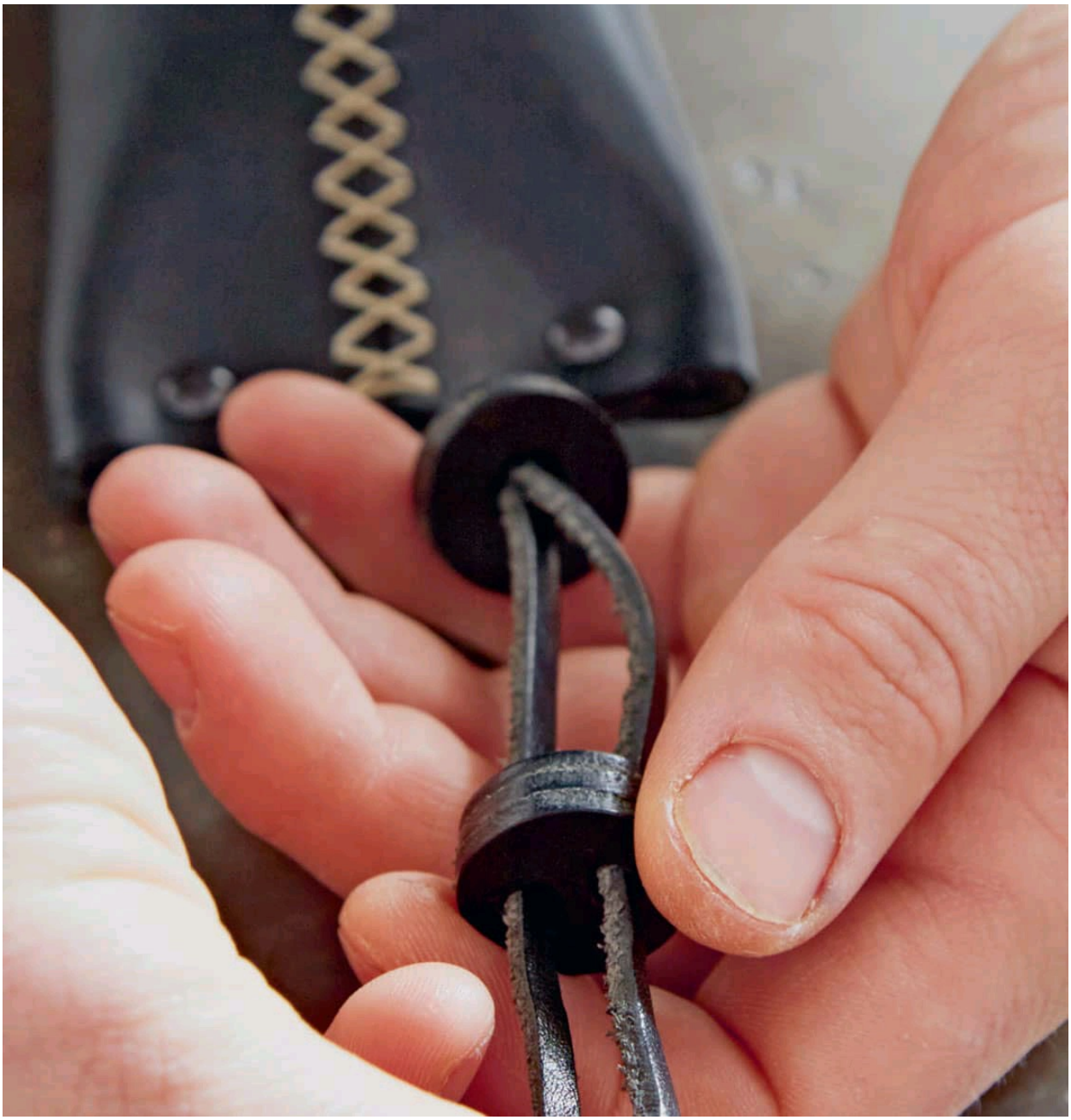
05. Construct buttons

To make the leather buttons, punch out five 20–25mm ($^3/_4$–1in) discs of leather with a large hole/wad punch.

On three of the discs punch two side-by-side holes with a 3mm ($^1/_8$in) hole punch. On the other two discs punch only one hole. Sand all the faces that will be glued together, leaving the grain on the outside of the buttons. Glue the three double-holed discs together and the two single hole discs together. Hammer flat and then burnish the edges.

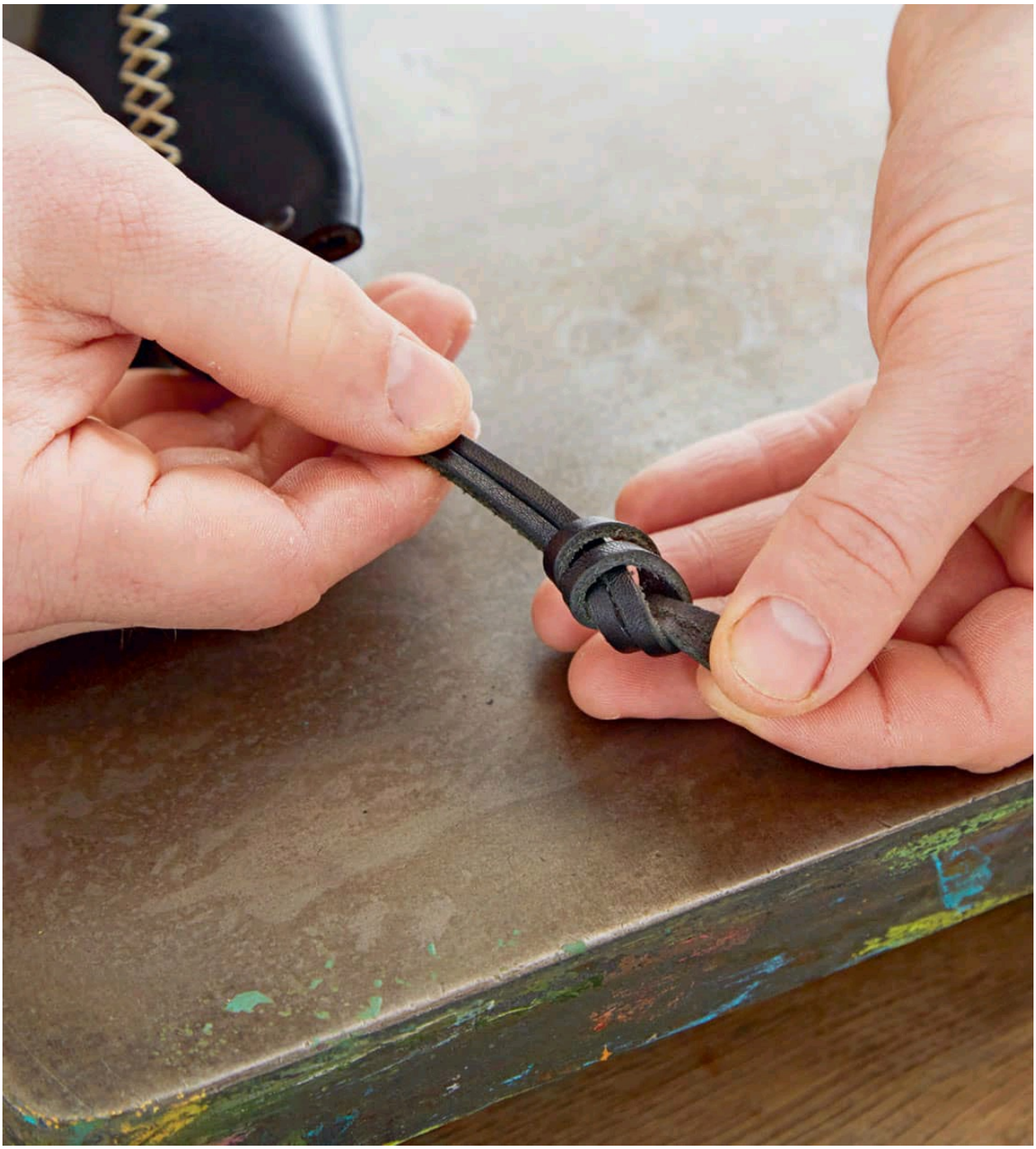
06. Thread lace

Take a length of leather lace (see here to make your own), double it up and pass the fold end through your key ring loop. Now pass opposite lace ends back over the key ring and through the space between the key ring and the lace fold. Pull tight then take the ends and thread them through the bottom of the cloche body, emerging from the gap in the top between the rivets. Pinch the ends of the lace together and pass them through the single hole button. Pull it down then open the ends of the lace and pass each individual end through the double-hole button.

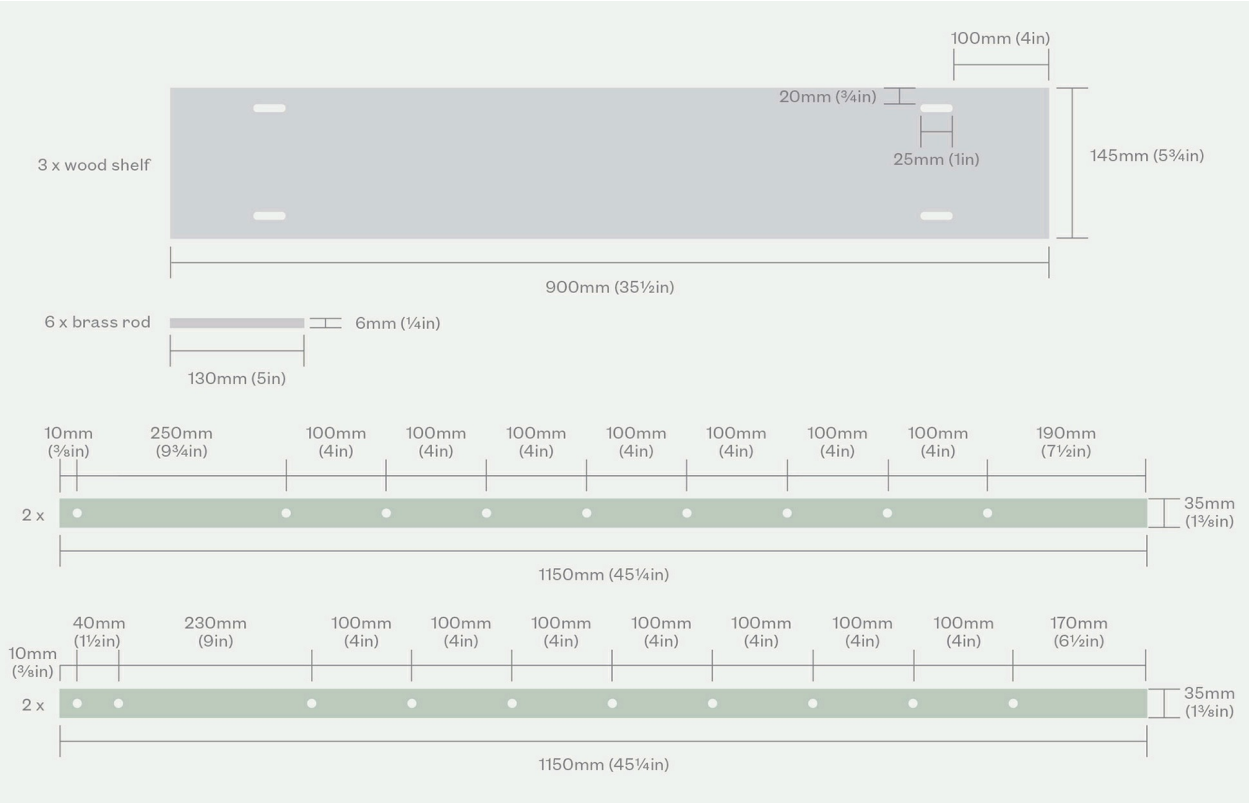


07. Finish with knot

Once you have settled on the length, set the lace ends side by side and carefully make a knot. The sides are more attractive if they sit side by side and with the grain on the same face. Trim and pull tight.



Hanging strap shelves



Thick bridle and vegetable-tanned leathers have a lot of tensile strength. The most basic form of these shelves involves screwing straps into a wall and sliding a timber plank through both. They suit most environments and work really well. These are an extension of that design, using four straps to suspend the shelves with brass or wooden pins. A particular attribute of these hanging shelves is their portability. Many of us lead nomadic lives and move our stuff around frequently. The pins can be pulled out, the straps rolled up and the shelves stacked. The whole system collapses into a small package. The multiple holes in the straps allow each shelf to be height-adjusted, depending on the display or storage required.

Materials

- Card for template
- Bridle leather or thick vegetable-tanned leather about 3–4mm ($^1/_8$–$^3/_{16}$in) thick
- 3 × timber planks for shelves, 22mm thick × 900mm long × 145mm deep ($^7/_8$ × 35 $^1/_2$ × 5 $^3/_4$in)
- Copper rivets
- 1000mm × 6mm (39 × $^1/_4$in) brass rod (or thicker if desired)

• 2 brass finish washers & 2 brass screws

Tools

• Block plane, spokeshave or sandpaper
• Pillar drill with table & 6mm ($^1/_4$in) drill bit
• G-clamps or quick-release clamps
• Strap cutter
• Strap-end punch
• Scalpel
• Round punch set
• Rivet setter
• Bevel hand tool
• Burnisher
• Metal hacksaw

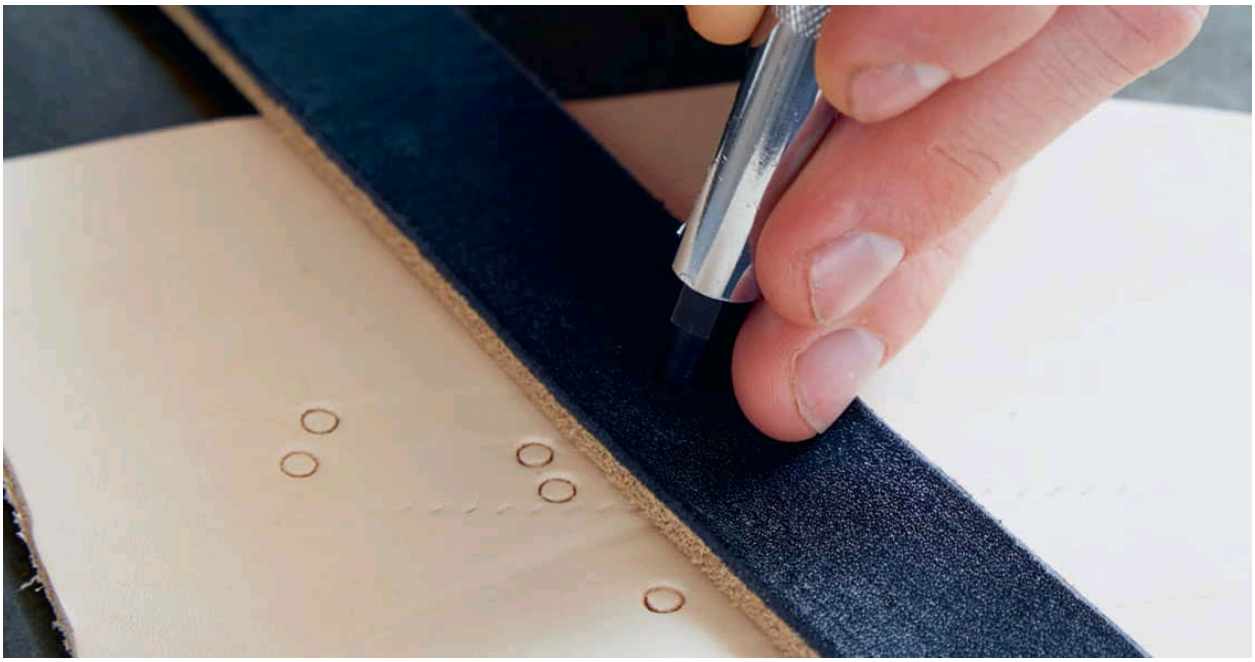
01. Prepare shelves

Cut your planks to size according to the diagram. Using a block plane, spokeshave or even sandpaper, bevel all of the edges on the timber and make sure it is smooth on all faces. On each plank mark points at 100mm (4in) and 125mm (5in) inset from each end along the lengths. Draw four lines across at these marks to the opposite sides – one at each point. As you will be drilling through the shelves completely, make sure you have a scrap piece of flat timber that will protect the drill bit and prevent the wood tearing out underneath. Clamp it so that the distance from the centre of the drill tip to the timber backrest is 20mm ($^3/_4$in). Take a sharp 6mm ($^1/_4$in) drill bit for woodwork and set the drill to a high speed. Hold the shelves firmly against the backrest and press down. Drill holes in between the two marker points, four on each shelf. Drill the outermost holes first, working inside the lines. Then drill the rest of the holes; you should need five holes in total. To clean out any waste, hold the bit down inside the cavity and carefully move the shelf from side to side as the drill is spinning.

02. Cut straps

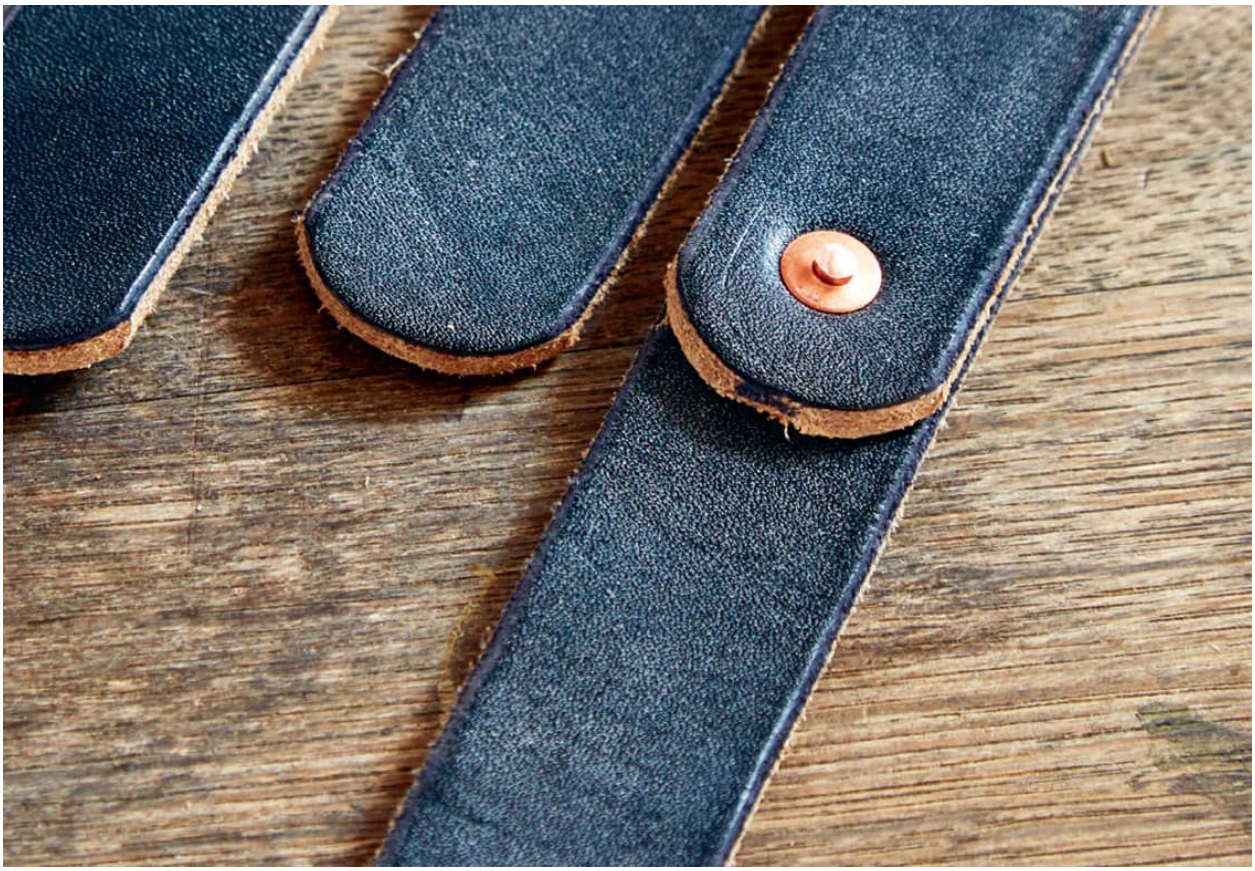
Cut four leather straps measuring 25 × 1150mm (1 × 45 $^{1}/_{4}$in) or longer. (You can always trim back to length later.) Bevel both the top and bottom edges and round the ends with a strap punch. Place them in pairs.

Take the first pair, which are to be the back set, and punch holes with a 4mm ($^{3}/_{16}$in) round punch, the first two at measurements of 10mm ($^{3}/_{8}$in) and 260mm (10 $^{1}/_{4}$in), then every 100mm (4in) after that for another seven holes. Now take the other pair, to be the front set, and punch holes at 10mm ($^{3}/_{8}$in), 40tmm (1 $^{1}/_{2}$in) and 270mm (10 $^{5}/_{8}$in), then every 100mm (4in) after that for another seven holes.



03. Rivet front straps to rear straps

Take the front two straps and rivet the front pair onto the back pair, riveting the front 10mm ($^3/_8$in) hole to the back at the 40mm (1 $^1/_2$in) hole with a solid copper rivet.



04. Thread straps and add fixing pin

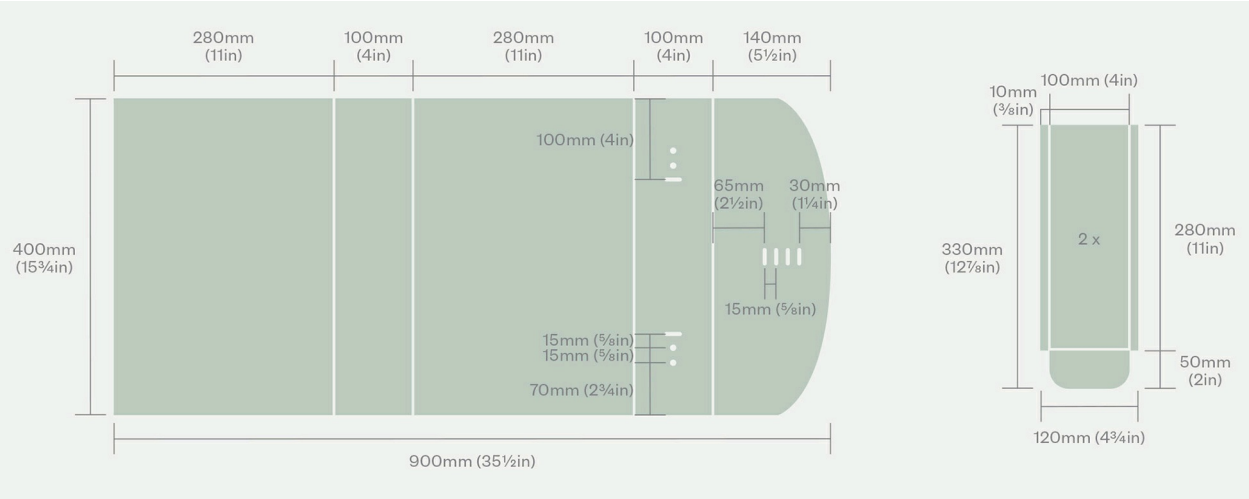
Using a metal hacksaw, cut the brass rod to lengths of 130mm (5in). File and sand the ends flat to remove burrs. You will need a total of six pieces.

Take the straps and pass them through the top of the shelf holes, one side at a time. Choose the height at which you would like your shelves to sit, and pass the brass rods through the front of the leather strap holes.

05. Finish and hang

Take two brass countersunk finish washers and two good-quality brass screws and fit your shelves onto the wall in your desired location. It is crucial you set the shelves level, so you may want to ask someone to give you another pair of eyes.

Messenger bag



It is a complicated job designing and creating bags. Every bag suits a different purpose. The individuality of a bag design provides infinite possibilities for personalization, as we carry different items for our varied lifestyles. The utilitarian function of a well-made messenger bag has always stood the test of time. Using a thicker, more robust leather provides a great structure and means you can use it daily, really chuck it about and wear it in like a pair of good shoes. This design has a single compartment, but could easily suit a divider or pockets, stitched in during construction. There is enough space for a laptop, a jacket and some books. Choose a good-quality, vegetable-tanned shoulder, or bridle leather, at least 3mm ($^1/_8$in) thick and it will last you a long, long time, softening and getting easier to use after a breaking-in period of a couple of months.

Materials

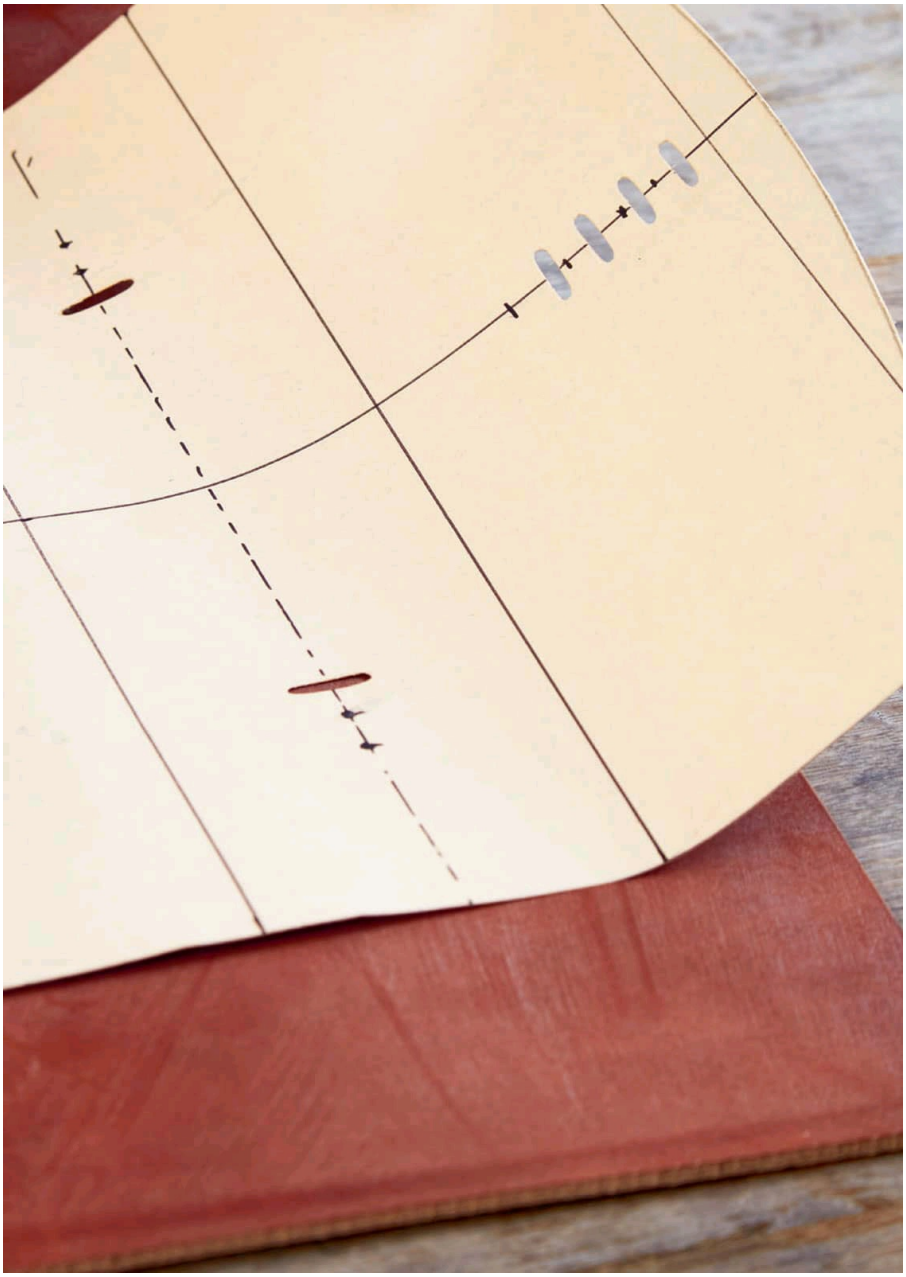
- Card for template
- 3–4mm ($^1/_8$–$^3/_{16}$in) bridle or similar thick leather
- 2 × 25mm (1in) brass buckles and D-rings
- 4 Sam Browne studs
- Contact adhesive
- Gum tragacanth
- Copper rivets
- Waxed linen thread & needles

Tools

- Round knife
- Strap cutter
- Strap-end punch
- Grooving or gouging tool
- Dividers
- Burnishing tool
- Skiving knife or paring tool
- 25mm (1in) oblong/crew punch
- Hammer
- Solid riveting tool
- Bolt clippers
- Diamond awl

01. Make template

Create a template according to the diagram. This will give you the basic body and side panel dimensions and markings. Lay the template on the leather and draw around it, then transfer all markings to the leather. Bevel and burnish the edges, paying special attention to the top flap and the front of the body. On the reverse, using a grooving or gouging tool, depending on the stiffness of the leather, groove lines from the 280mm (11in) and 380mm (14 $^{3}/_{4}$in) mark; removing a small amount of leather will allow the leather to bend more easily, to create a right angle. Take care not to groove too deeply or you will gouge through the face of the leather. You should make sure you maintain a steady hand; use a metal ruler if necessary. Work the leather so that it completes a satisfactory 90-degree bend and gets softer along the angle. Check for cracking. Using dividers set to 5mm ($^{1}/_{4}$in), gently score along the length of the body from 0–280mm (0–11in), then 380–660mm (14 $^{3}/_{4}$–26in). You can use a pricking iron to gently mark the stitching lines at this point, but don't go through all the way. Turn the leather back over, and punch all the holes. Punch centred holes on the section of leather that will be the body at 200mm (7 $^{3}/_{4}$in) and 225mm (8 $^{3}/_{4}$in).

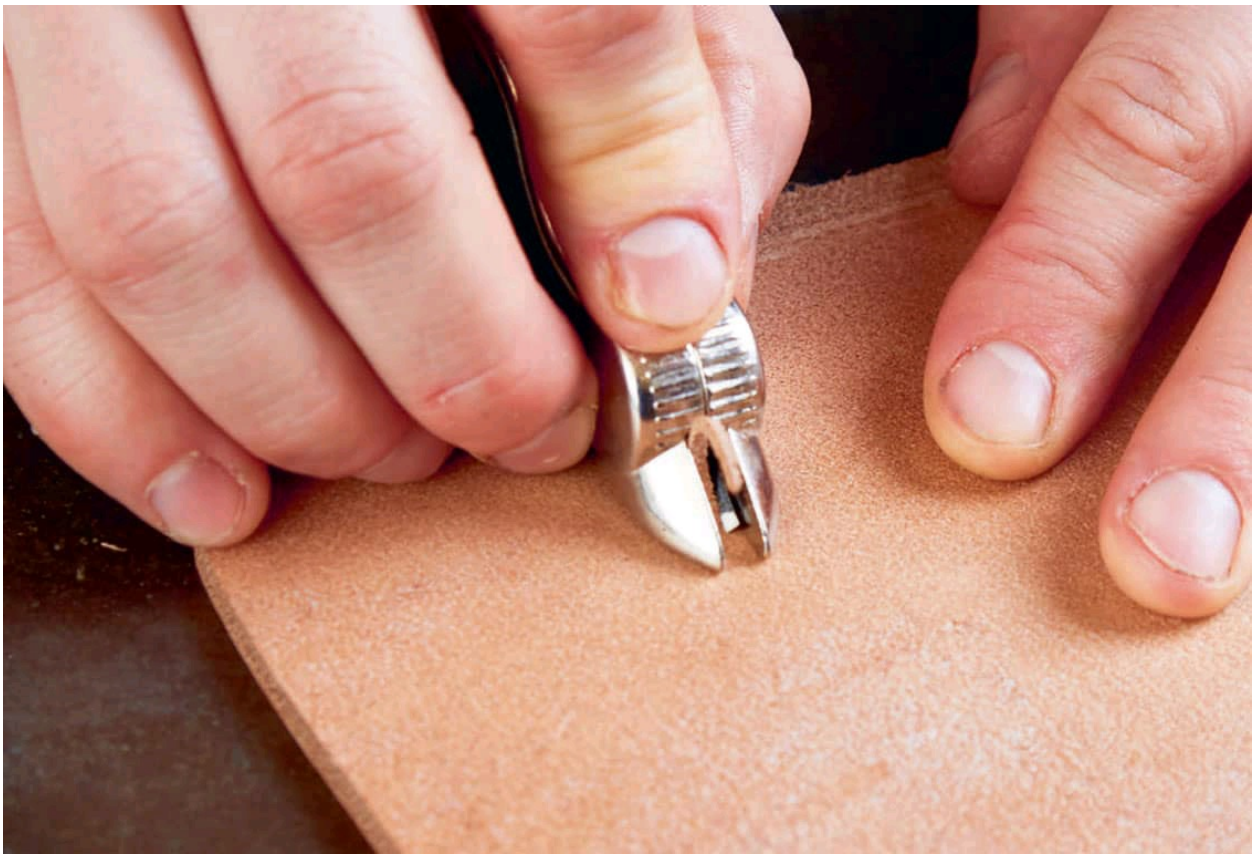


02. Cut side panels

To make the side panels, construct a template according to the diagram. Transfer to a piece of leather and cut out two panels. Punch centred holes 80mm (3in) and 100mm (4in) from the top for the D-ring attachments.

30. Make groove on reverse

Turn the two side panels over and score 50mm (2in) from the bottom, where the flap starts. Groove along this line to remove leather until the flap will bend inwards satisfactorily at 90 degrees.



04. Skive edges

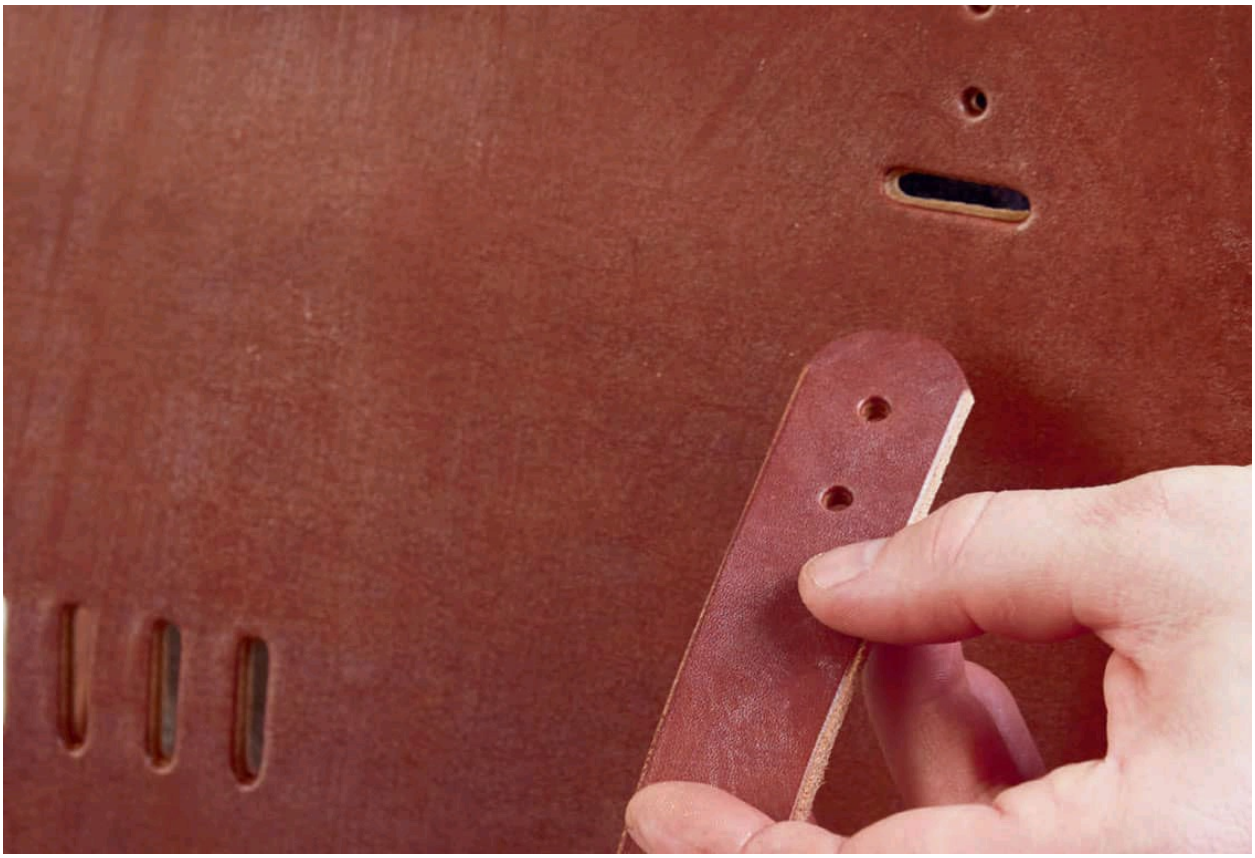
Keep the leather grain side down. Using dividers set to 10mm ($^3/_8$in), score down both sides till you reach the bottom flap. Use a skiving knife to thin the edges down to about half their thickness, about 1.5–2mm ($^1/_{16}$in), skiving back from 10–12mm ($^3/_8$–$^1/_2$in). You should be able to bend the edges backwards to almost 90 degrees without too much resistance. These sides have a long edge to skive, so make sure your knife is very sharp and your hand remains steady throughout. If you have access to a skiving machine you may find it easier to use that instead.

05. Attach side strap fixings

Cut two straps of 25 × 80mm (1 × 3in). Punch holes at 10mm ($^3/_8$in), 30mm (1 $^1/_4$in), 50mm (2in) and 70mm (2 $^3/_4$in). Round the edges with a strap end punch, then bevel the top and bottom edges and burnish. Pass through a 25mm (1in) D-ring and rivet onto the side panels with copper rivets. Face the heads to the outside.

06. Make handle

Take the main body of the bag. You now need to make the handle and straps. For the handle, cut a strap measuring 25 × 280mm (1 × 11in) and punch centred holes at 10mm ($^3/_8$in) and 25mm (1in) from each end. Round the end with a strap end punch and then bevel and burnish both top and bottom edges thoroughly.



07. Attach handle to body

Attach the handle through the top side of the leather with the rivet heads on top. Rivet underneath with copper rivets, taking care to dome the rivet ends smooth.

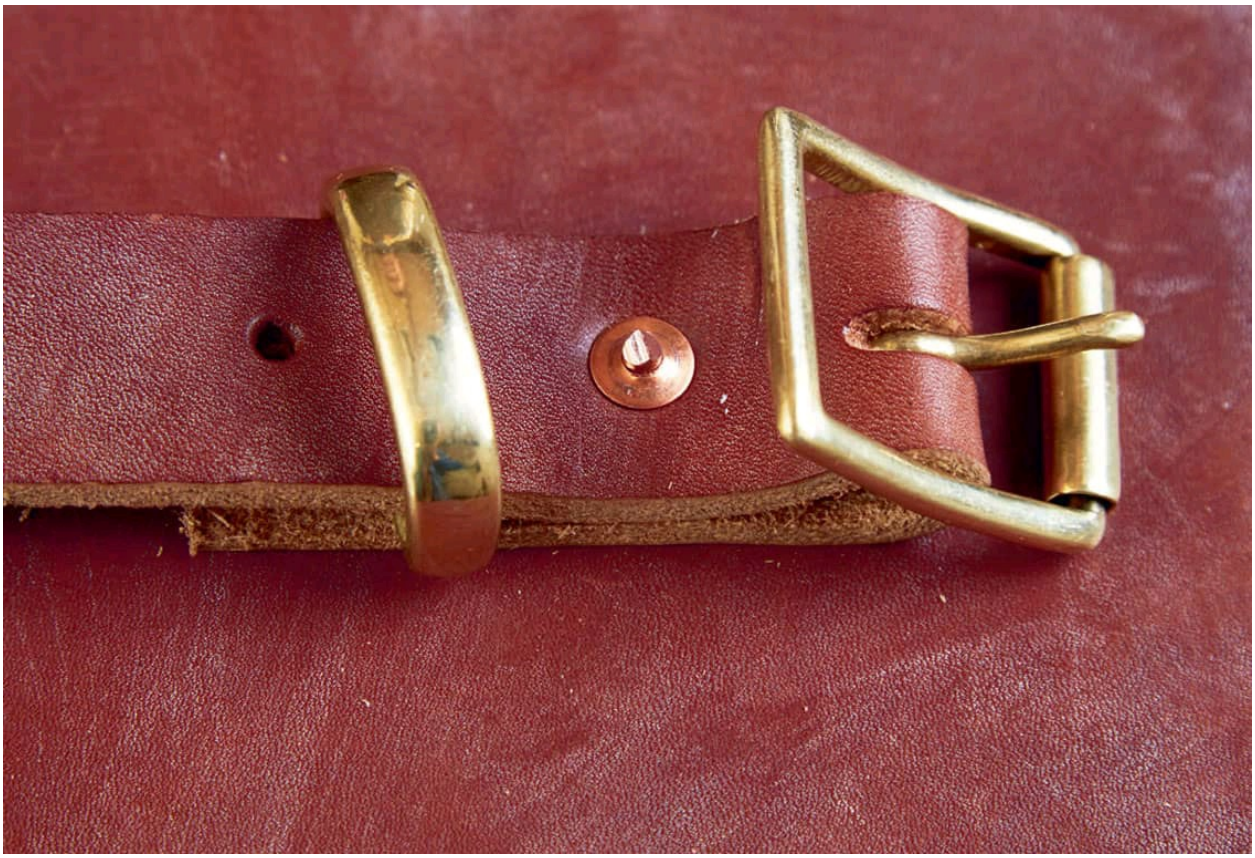
08. Make buckle fastening

Cut a full-length strap measuring approximately 1200m (47in) and 25mm (1in) wide. At one end, skive the reverse, starting 100mm (4in) inset from one end, so the leather will bend around the buckle with ease. Skive it to around 2–3mm ($^1/_{16}$–$^1/_8$in) thick, tapering to be thinnest at the end. Punch four centred holes at the skived end – at 10mm ($^3/_8$in), 35mm (1 $^3/_8$in), 85mm (3 $^1/_4$in) and 110mm (4 $^1/_4$in). Then punch a hole using a 25mm (1in) oblong punch set lengthways at 60mm (2 $^1/_4$in). Bevel and burnish the top and bottom edges of the strap.

09. Attach buckle to body

Punch centred holes on the section of leather that will be the front of the body (not the front flap) at 200mm (7 $^{3}/_{4}$in) and 225mm (8 $^{3}/_{4}$in). Measure from the left side in the diagram. These are where you will rivet the front buckle and strap.

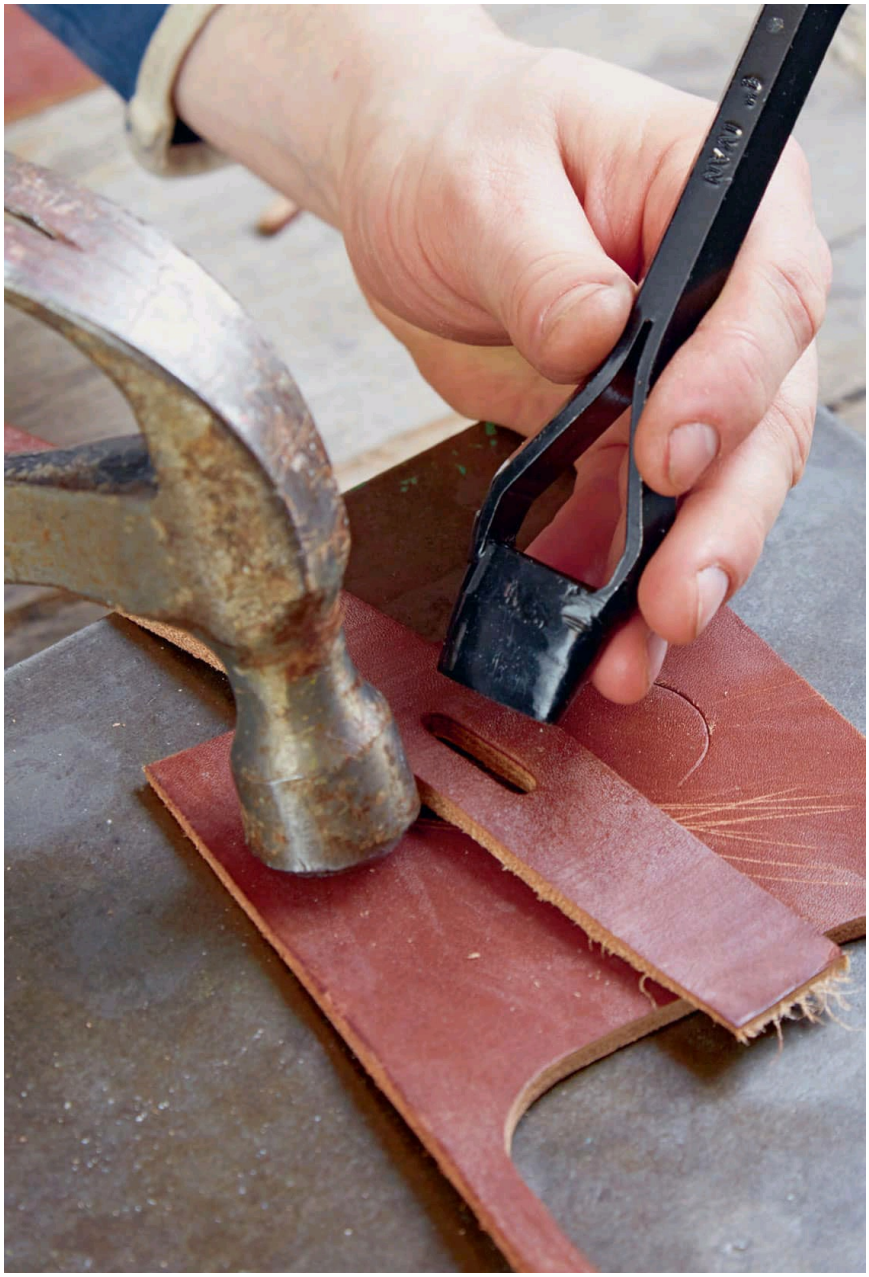
Insert the strap into the buckle and rivet this onto the front of the bag on the holes at 200mm (7 $^{3}/_{4}$in) and 225mm (8 $^{3}/_{4}$in). The rivets are best set this time, with the head on the inside and washer on the outside. You can add a brass loop keep at this stage if you wish, in between the two rivets. If you have a centred bar buckle then you probably won't need it, if you want a west end buckle then you will need a keeper or leather keep loop.



10. Make shoulder strap

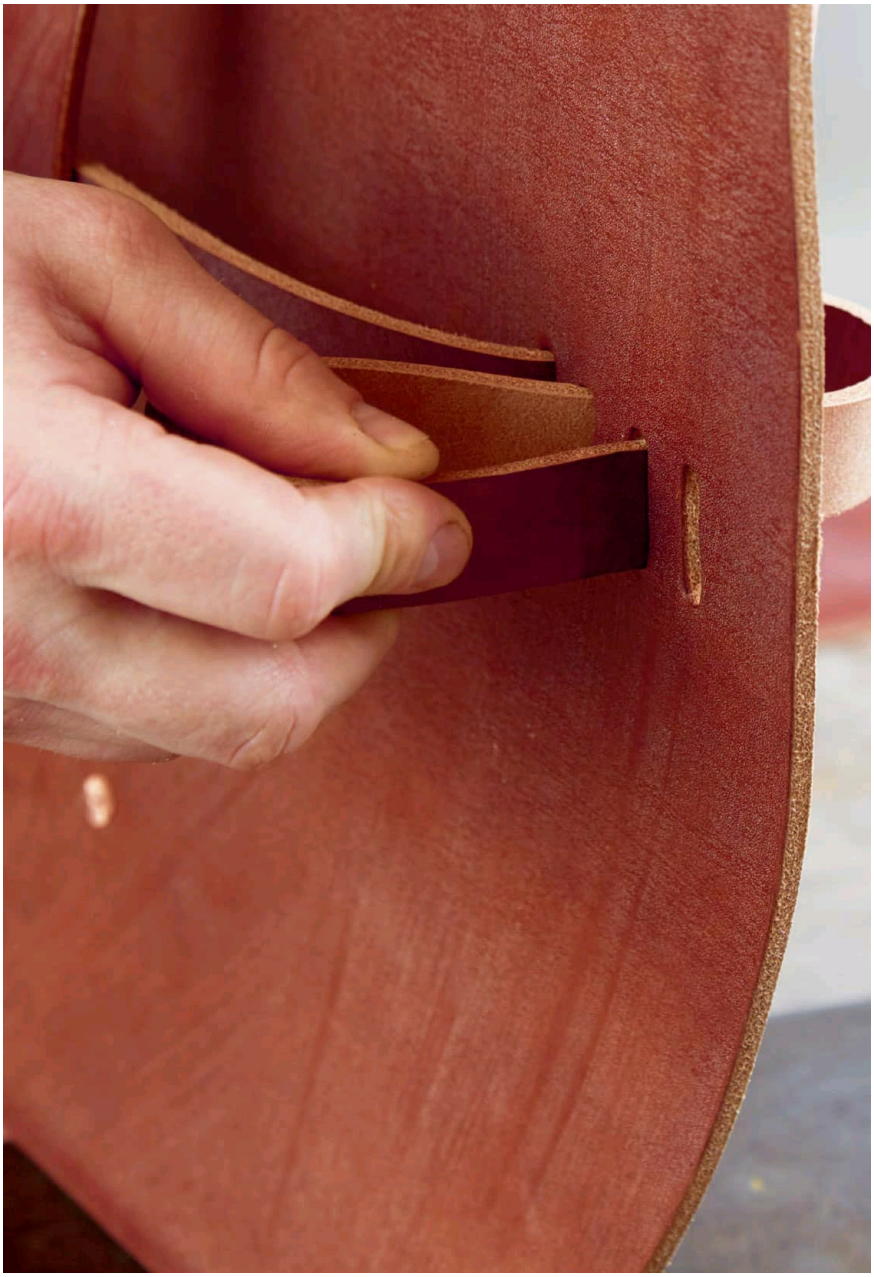
The last piece to construct is the shoulder strap. Cut a strap 600 × 25mm (23 $^{1}/_{2}$ × 1in). Bevel and burnish both sides and around the ends. At one end, punch centred holes at 10mm ($^{3}/_{8}$in) and 50mm (2in). Screw in two Sam Browne studs, stud facing inwards. Then use a button hole punch at 110mm (4 $^{1}/_{4}$in) and 150mm (6in).

At the other end, skive the reverse 100mm (4in) from the end, then punch centred holes at 10mm ($^{3}/_{8}$in), 35mm (1 $^{3}/_{8}$in), 60mm (2 $^{1}/_{4}$in), 110mm (4 $^{1}/_{4}$in), 135mm (5 $^{1}/_{4}$in) and 160mm (6 $^{1}/_{8}$in). Punch a 25mm (1in) oblong hole at 85mm (3 $^{1}/_{4}$in). Fit the buckle as done previously. The back strap should be cut long (about 1000mm/39in) and made with the Sam Brown fastenings at one end. Tailor the strap to your torso size and preferred position. These bags sit well high up on the waist. Punch the chosen hole with a 5–6mm ($^{1}/_{4}$in) hole punch then place two holes either side, 30mm (1 $^{1}/_{4}$in) distant. Trim and round the end of the strap. The shoulder strap system should be fitted at the end, once the body has been finished.



11. Fix front strap

Lay the bag flat with the grain side up and pass the front strap along the length of the body. Take the end and pass it through the first oblong hole and pull through, but not taut – it needs about 10mm ($^3/_8$in) of slack. Then pass it through the other two holes. You want to be able to bend the body into shape without the strap restraining it from doing so. You can trim and put a hole in it once the bag is fully assembled. To do this, pull the strap down over the buckle as if to close the bag and mark where the hole would sit at the top of the buckle tongue. Punch a round or oval hole to fit your buckle.



12. Sew on side panels

Take the skived side panels with the D-rings attached and glue the skived edges with contact adhesive. Turn the body of the bag over so the grain side is down and glue along the edges where you pricked earlier – from 0–280mm (0–11in) and 380–660mm (14 $^{3}/_{4}$–26in). Once the glue is tacky, carefully take both side panels and lay on the front-facing edges of the body. Hammer or bone-fold firmly to set the adhesive. Fold the bottom flap inwards and bend the front side of the body up vertically, then over horizontally. Take one of the side panels and fix the remaining edge, keeping pressure on the body to prevent the bag springing back flat. Set and hammer this side, then fix the last edge on the other side panel. Place the bag on its side and then stitch with an awl and thread, using a saddle stitch.

Panels and forming

Leather doesn’t always have to remain in a two-dimensional sheet. It is incredibly receptive to shaping and impression and was for thousands of years used as a form of armour. Soaking leather in water completely changes its properties and capabilities. Even localized wetting on certain areas allows leather to bend and fold much more easily. Natural vegetable-tanned leather is most receptive to wet forming, as it is free from finish and hasn’t had oils and dyes rubbed into it. You can finish it once it has dried, using waxes, oils and dyes.

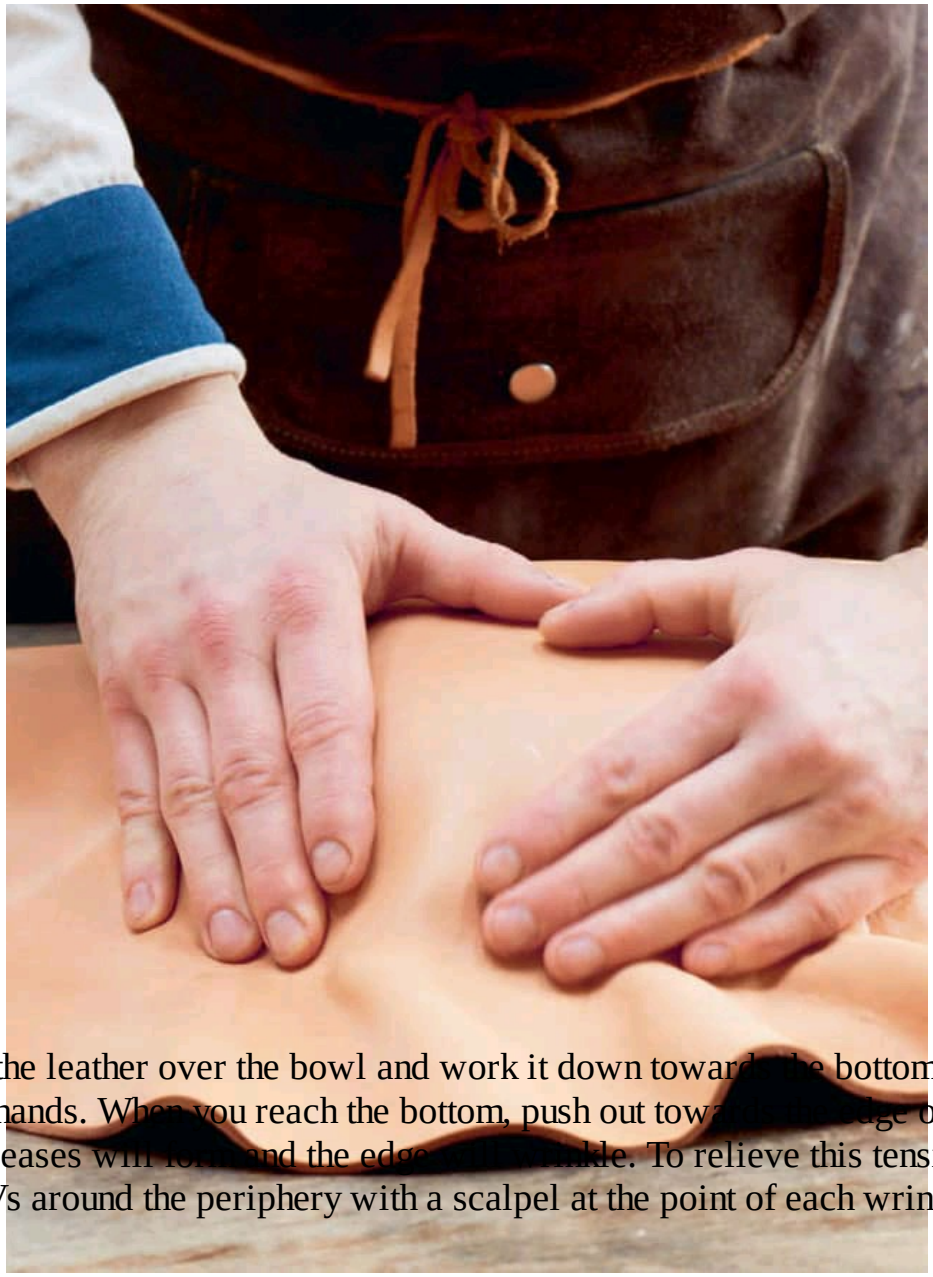
Leather from Cordoba in Spain was famed for the intricate embossed details and patterns developed by craftsmen there. Many palaces and grand houses would have richly decorated, painted and gilded leather wall panels. Such is the expense and effort to make these now that they are part of a bygone era. Tooling is still used widely by many leatherworkers around the world. Vegetable-tanned leather provides a wonderful canvas with which to work, such is the receptive quality of the material. It can be carved, embossed and dyed or painted to produce an incredible range of styling. Tools can be bought in sets or individually. They can be used as a range to build up a bigger picture, to create shadow and depth, or individually in repetition or tessellation.

Wet forming

01. Wet moulding classically uses a form that comprises two parts – the positive and negative that combine to force the leather into a given shape. This process – called wet forming – is a less controlled technique that doesn't require the precision and time to make an accurate wooden form. Once you feel confident or are attracted to wet forming, you should research wet moulding to make hard cases and all manner of amazing items. Using a bamboo, wooden or plastic bowl, or any ubiquitous object that can be easily obtained, you can experiment with wet forming to create a variety of shapes to make items such as bowls, trays and lampshades.

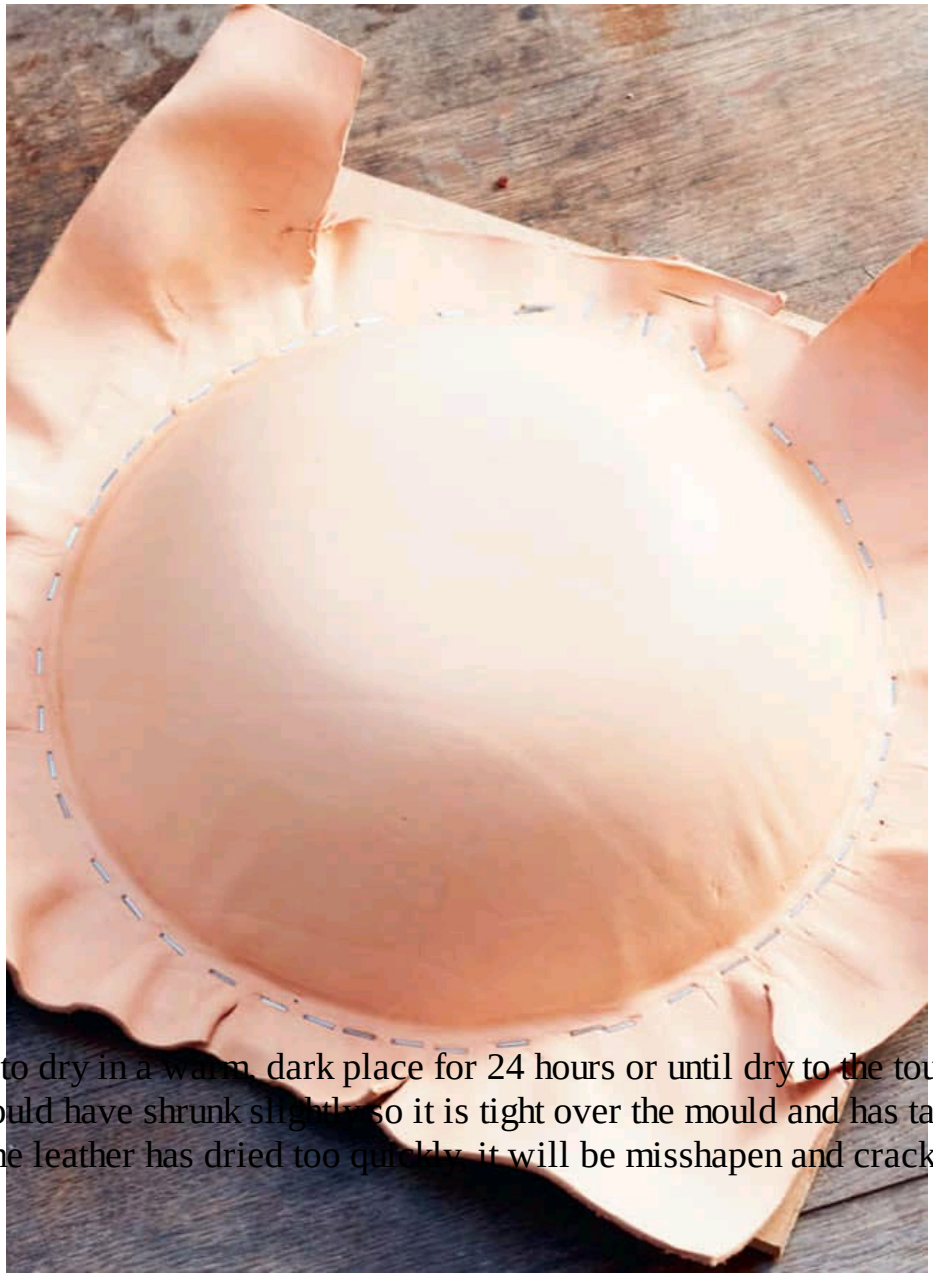
02. Attach your bowl or chosen form to a large piece of timber that will provide a stable base. Wood glue will suffice. Clean any excess glue from the edges and clamp the leather down firmly.

Fill a sink or large bowl with warm water – the hotter the water, the harder the leather will set when dry. It should not be too hot to touch, but not lukewarm. Soak your piece of leather for at least 10 minutes to allow all the air to escape from the leather and the water to soak right through. You will see bubbles emerging. Take the leather out and allow most of the water to run off until it drips intermittently.



03. Place the leather over the bowl and work it down toward the bottom edge with both hands. When you reach the bottom, push out toward the edge of the leather. Creases will form and the edge will wrinkle. To relieve this tension, cut a series of Vs around the periphery with a scalpel at the point of each wrinkle.

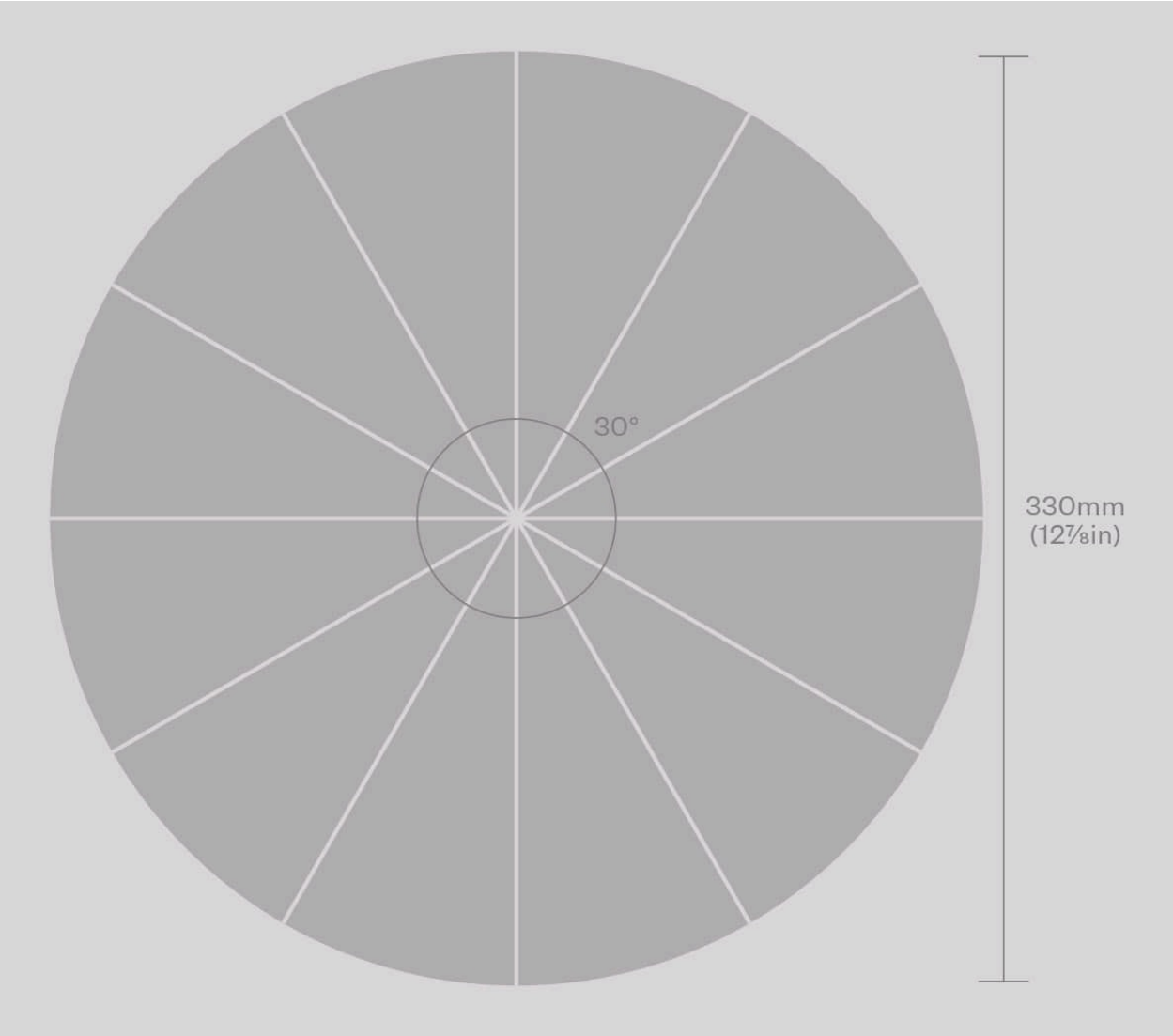
04. Using a staple gun, staple around the base of the leather about 10mm ($^3/_8$in) out from the moulding form. (When using a proper moulding form, you would clamp the negative jig around the outside at this stage and leave it to set.) You can use a hammer and small tacks rather than staples if you prefer. Work on opposite sides with each alternate staple so that you keep an even pressure on the leather and fix it in place. Fix as many as you can without overlapping any. Use a bone folder to get any marks out of the leather at the base, as the staple gun will mark. At this stage, the leather is incredibly impressionable, but most marks can be rubbed out.



05. Leave to dry in a warm, dark place for 24 hours or until dry to the touch. The leather should have shrunk slightly so it is tight over the mould and has taken the shape. If the leather has dried too quickly, it will be misshapen and cracked.

06. Using a sharp scalpel, angle the blade perpendicular to the angle of the mould and carefully cut around the base of the leather. If you want to maintain a steady line, you can hold a pencil protruding from the surface of a flat book and rotate the leather and mould so that a line registers along the base. Cut this out along the line and trim any excess until you have the desired shape. Your piece is now ready for finishing and stitching.

Wall clock



The best aspect of leather wall clocks is their endless potential for variation. They can be simple and unassuming or complex and striking, depending on the size, colour and details. Use stitching, rivets or embossing to add detail. Whatever the result, the texture and finish of a well-chosen piece of leather will always provide an interior with more character. The hour markers in this version are detailed with a simple but effective contrasting hand stitch. The mechanism should be a good-quality quartz one where possible. The brass catches the light and gives the piece a more finished look. Always back the leather with a heavy card of around 2mm

($^{1}/_{16}$in) thick to prevent the leather from bending over time. Use conditioner or wax cream sparingly every so often to prevent it from drying out.

Materials

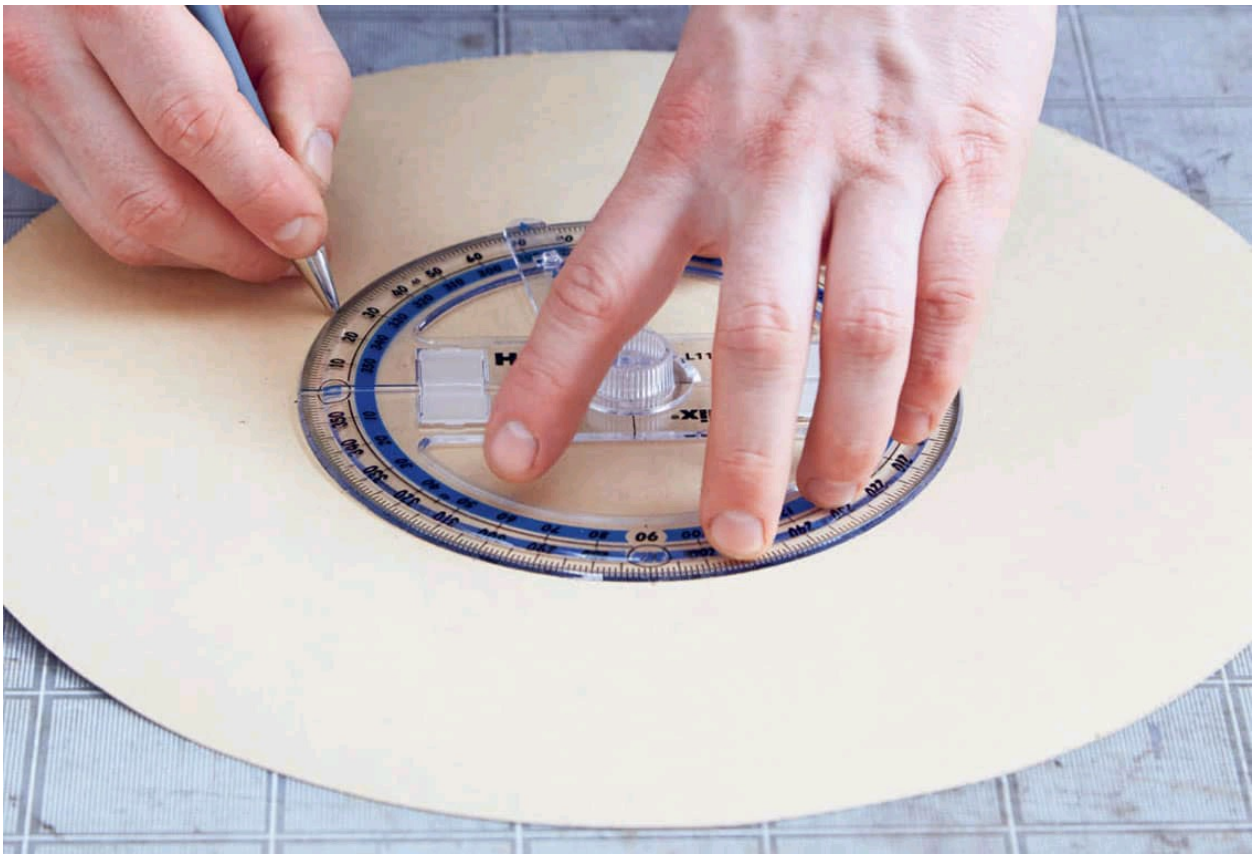
- Card to make a template
- 350mm (13 $^{3}/_{4}$in) square piece of thick vegetable-tanned leather
- Quartz clock mechanism, stem to fit combined thickness of leather and mounting board
- Thick mounting board
- Waxed linen thread & needles
- Contact adhesive
- Wax cream

Tools

- Compass or plate/large bowl
- Protractor
- Awl
- Knife
- Roller
- Ruler
- Pricking iron
- Sandpaper
- Burnisher
- Hole punch
- Embossing tools (optional)

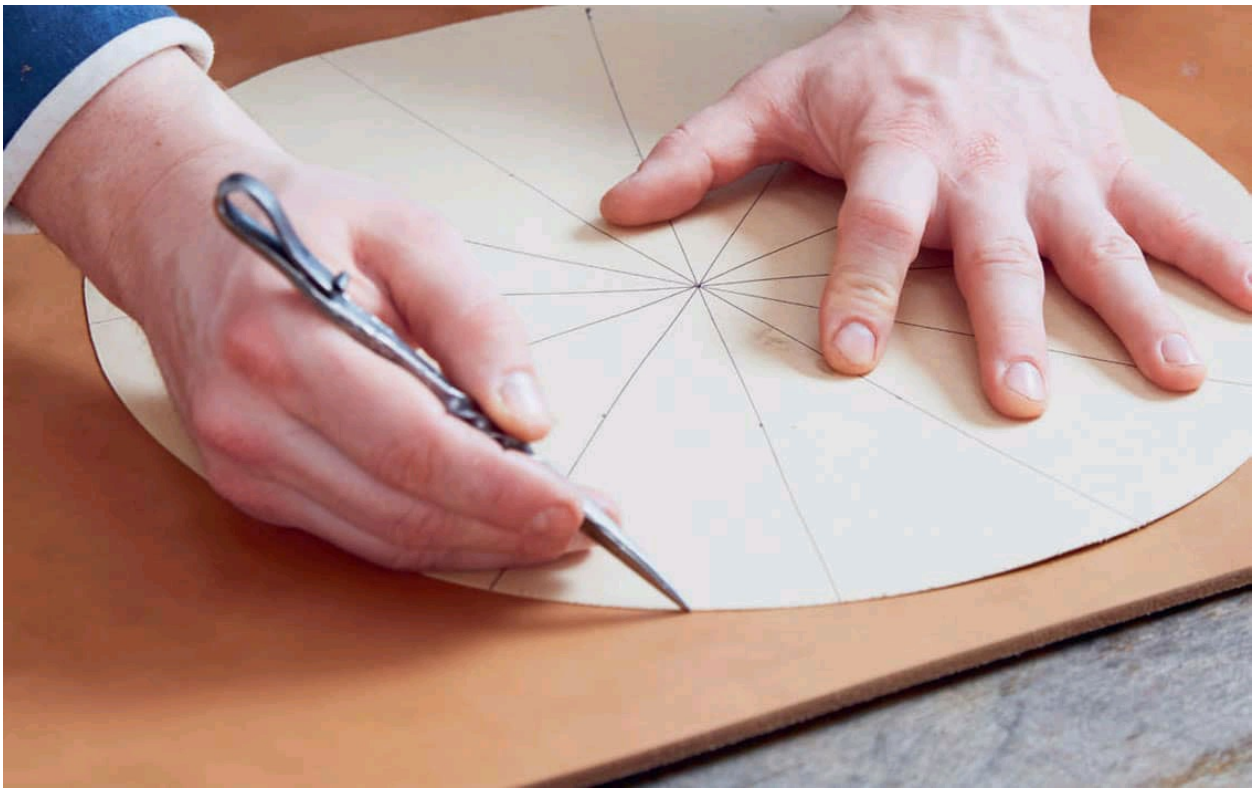
01. Mark out template

Create a circular card template of around 300mm (12in) using a compass or round object such as a dinner plate. Locate the middle of the circle and mark. Mark a point on the edge of one part of the circle and draw a connecting line to the centre. Using a protractor, mark points at 30 degrees around the circle, drawing lines from the centre out to the edge so you have 12 segments. Mark a point 10mm ($^{3}/_{8}$in) inset from the outer edge on each line and at 50mm (2in) with an awl.



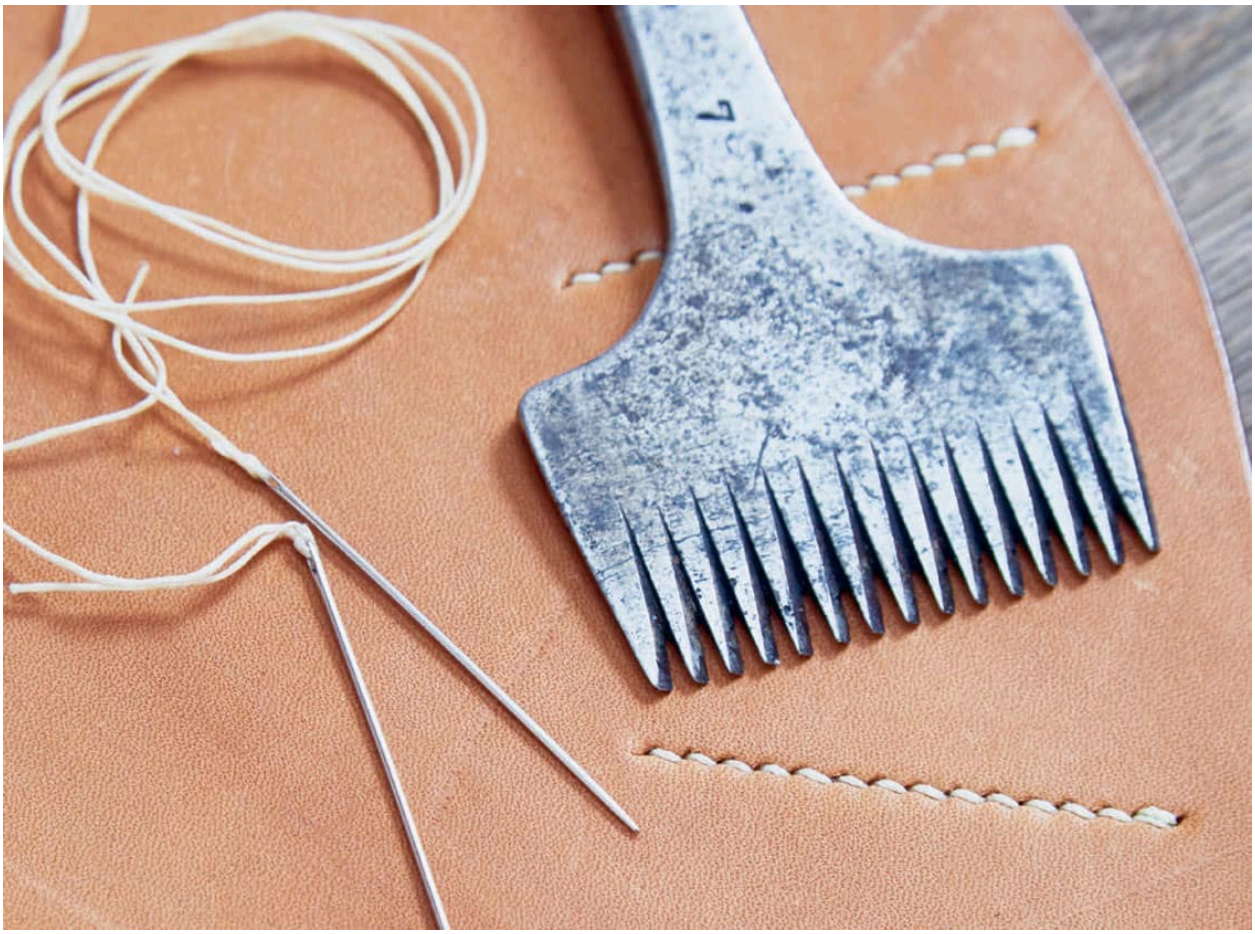
02. Cut leather

Place the card template over the piece of leather and hold it firmly, use a flat weight if you can. Trace the circle template onto the leather. Mark the centre point and all the 12 outer marks and 12 inner marks around the edges. Cut out the leather, keeping a controlled motion to create a smooth curve as you go. Due to the simplicity of this piece, any rough cuts will be very apparent. Use 120–180 grit sandpaper to remove any nicks. Burnish the edges on the top and bottom edges.



03. Prick out and stitch

Now place a ruler across the centre of the clock face at the points of each hour so the opposites both meet the line (1 and 6, 2 and 7 and so on). Score a line from the outer marks to the inner marks – a length of 38mm (1 $^{1}/_{2}$in) and set a pricking iron along each line. If you want to make longer lines then choose your length at this point. Prick the leather at each hour mark. Using a waxed linen thread and two needles, saddle stitch all 12 lines, remembering to repeat one stitch and cut the thread at the back to finish.



04. Attach backing board

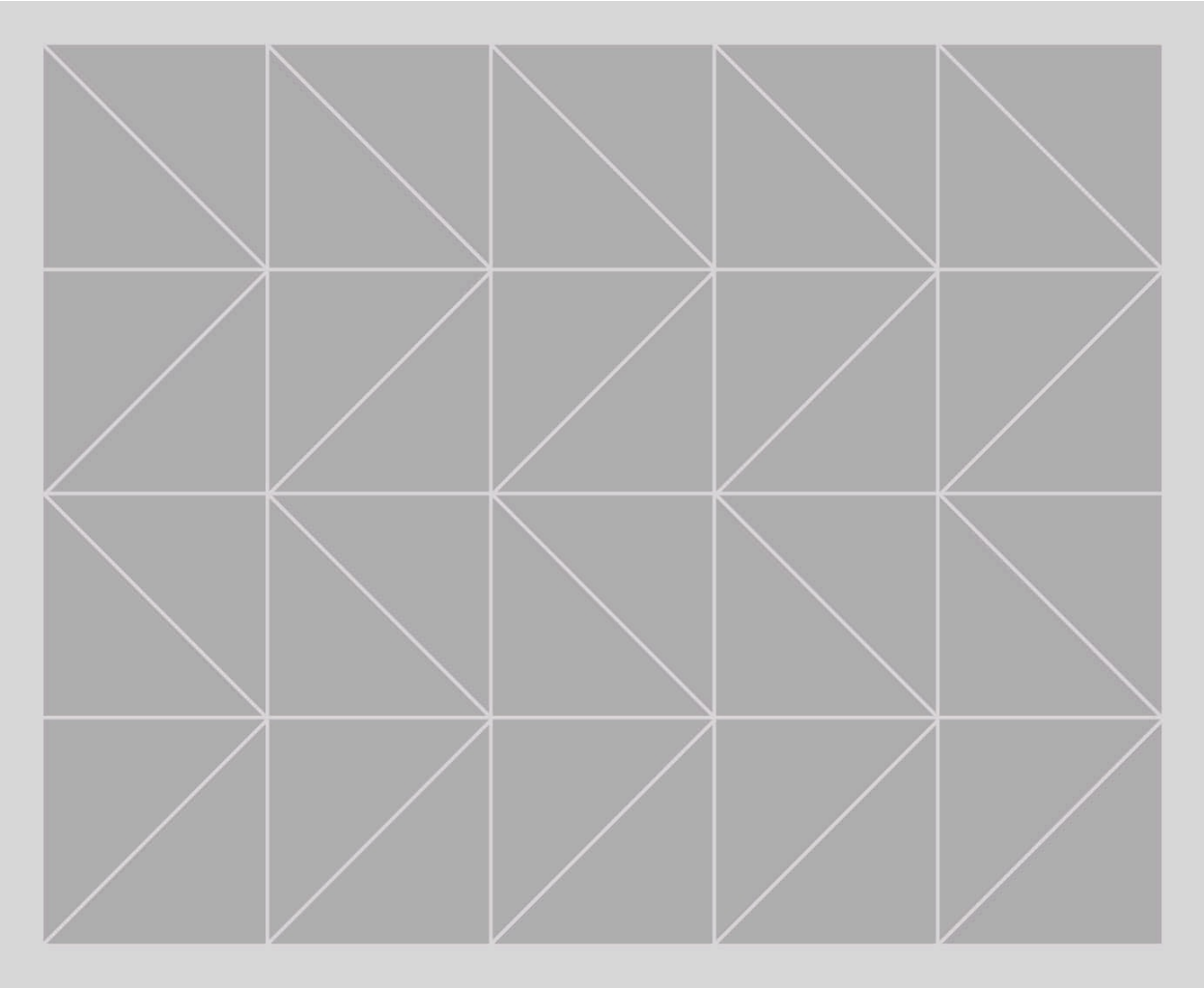
Cut a disc from mounting board that is slightly smaller than your leather clock face – around 25mm (1in) less in diameter. Place it centrally on the back of the clock face and trace it, then glue inside the traced area and also the card and attach it to the back of the leather. Use a roller across the surface of the card to make sure it adheres securely.

05. Punch centre hole and attach mechanism

Take your quartz clock mechanism and measure the width of the central threaded stem. Punch a hole of matching width in the centre of the clock face, through both the leather and the card.

Slide the clock mechanism through the hole as per the manufacturer's instructions and then carefully fit the hands. This design has no allocated 12, 3, 6 or 9 position. If your design includes specific numbering or stamping, make sure the mechanism is attached at the correct angle for hanging.

Tiled trolley



Leather marquetry is a beautiful technique that requires precise skill, especially with a knife. It is possible, as with wooden marquetry, to create complex patterns and designs. You can transform cabinet doors and table tops or add colour and interest to otherwise mundane items. Tiling and marquetry are also a great way of using the smaller, awkward shaped pieces that accumulate over time. Save all your offcuts from other projects and create a really spectacular piece. Make sure you plan your designs carefully on paper first, and use card to stencil or template each piece. Thinner leather will stretch, so don’t put too much pressure on each piece or handle it too firmly or it will quickly become misshapen.

Materials

- Small trolley or piece of furniture with adequate surface for tiling
- Card for template
- Assorted offcuts of leather – use all the same thickness, minimum 1.5mm ($^{1}/_{16}$in)
- Contact adhesive
- Leather cream or wax

Tools

- Knife
- Clicking knife or scalpel
- Bone folder
- Roller

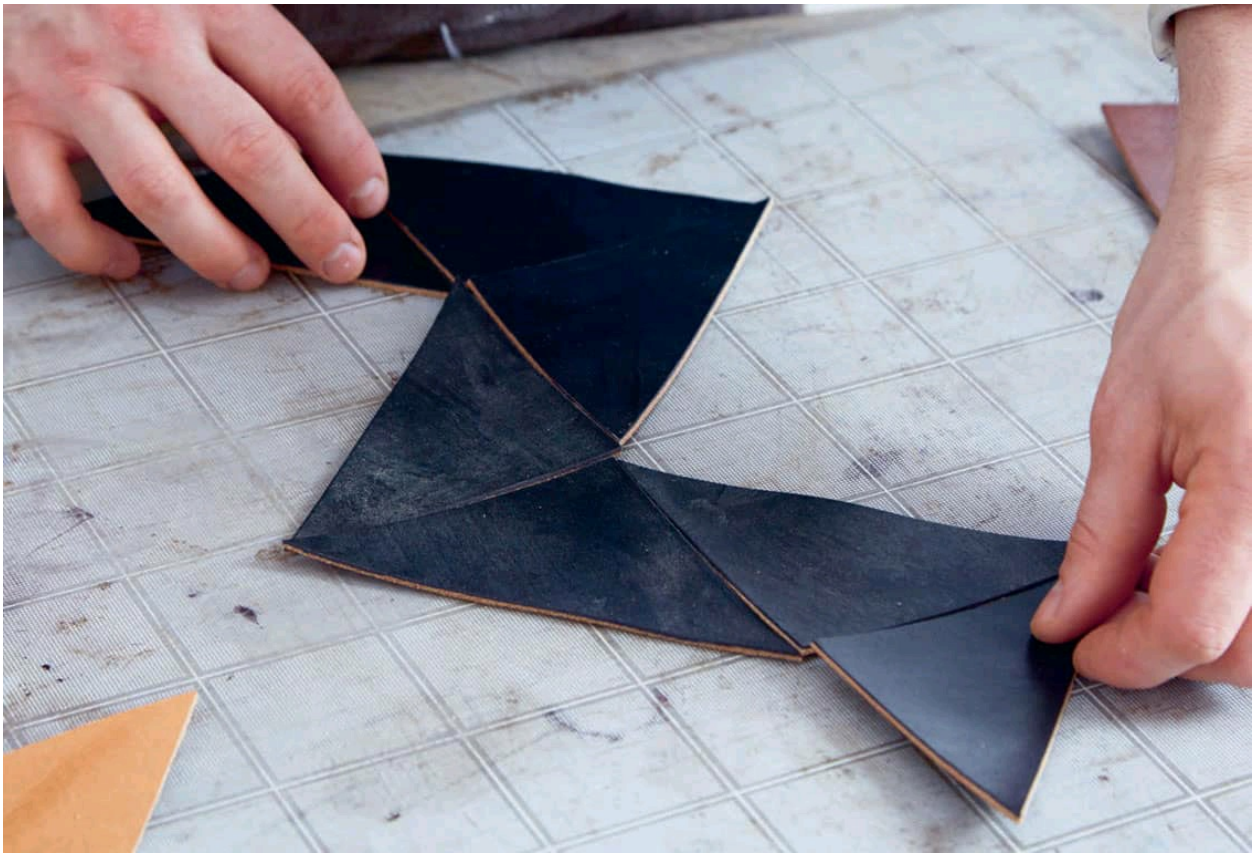
01. Assemble tiles

Sketch out on some card the pattern or design you want. It is easiest to stick to one shape and explore the large possibilities within this. Make a simple template of a triangle, square or rectangle and trace it out onto your leather offcuts, assembling them into sorted piles. When cutting, make sure to cut with a very slight overhanging angle (mitre) with the blade to ensure that there are no gaps when you butt the leather pieces together. If you undercut the angle, you will have gaps and see the underside of the leather rather than a neat join. You want to minimize the visibility of the seams.

Tip: The surface you are covering needs to be clean and flat. If there are any dents or chips fill them in and sand them back. If there are lumps, remove them by scraping and sanding.

02. Establish design

Experiment with different styles and patterns until you have a good sense of the arrangement. Make sure you have enough leather, with some extra tiles to cover for mistakes. You need to work out where your first tiles will go, and where you will end up. If there are any curves on the edges of your piece of furniture, make a paper template of the curve to transfer onto the tiles that need to be shaped to fit.

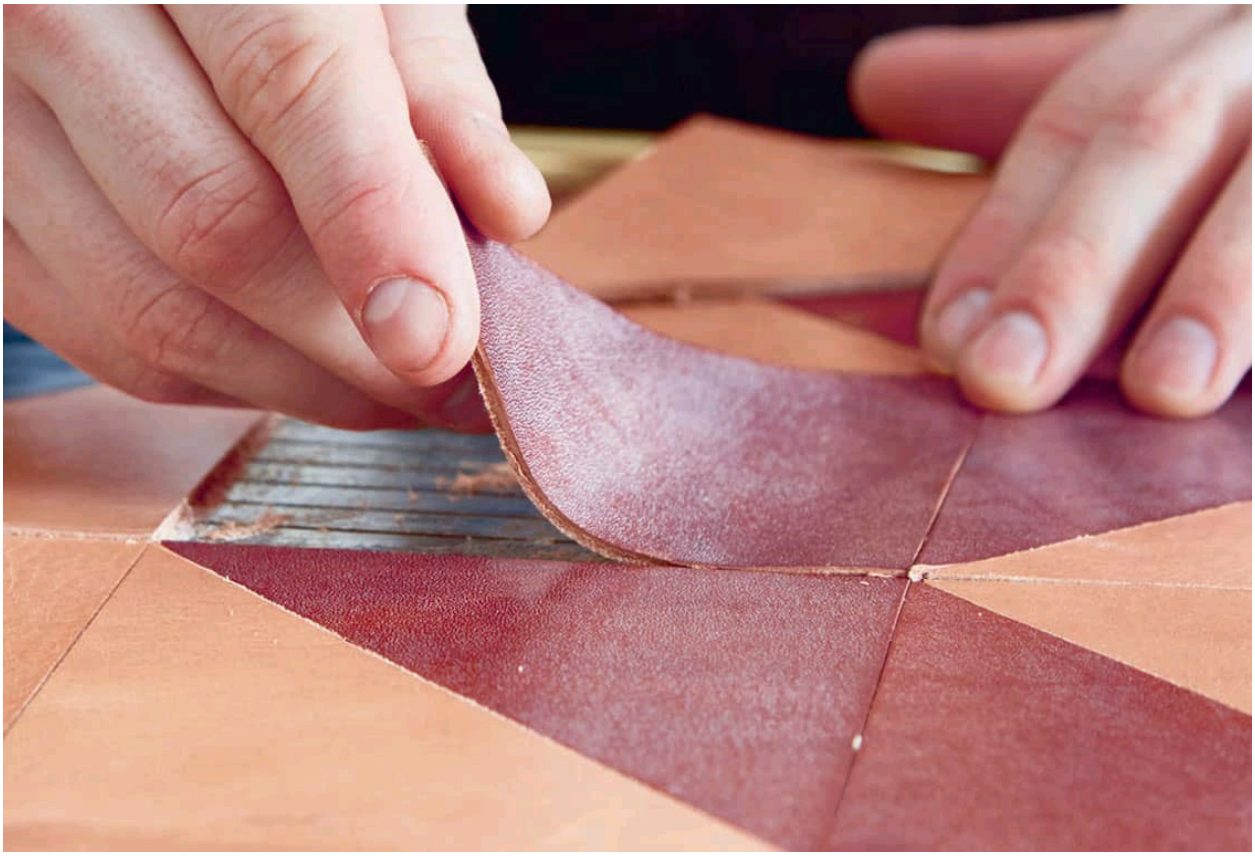


03. Glue surfaces

Start by gluing a small area of the surface of the trolley or object you are tiling. Then glue the first tiles in place, starting from one edge and working along the surface. Don’t glue the whole surface at once, as the glue will lose its tackiness after a while and you won’t be able to make adjustments. You may want to adjust your shapes to fit better before you fix them, so run a dry fit first.

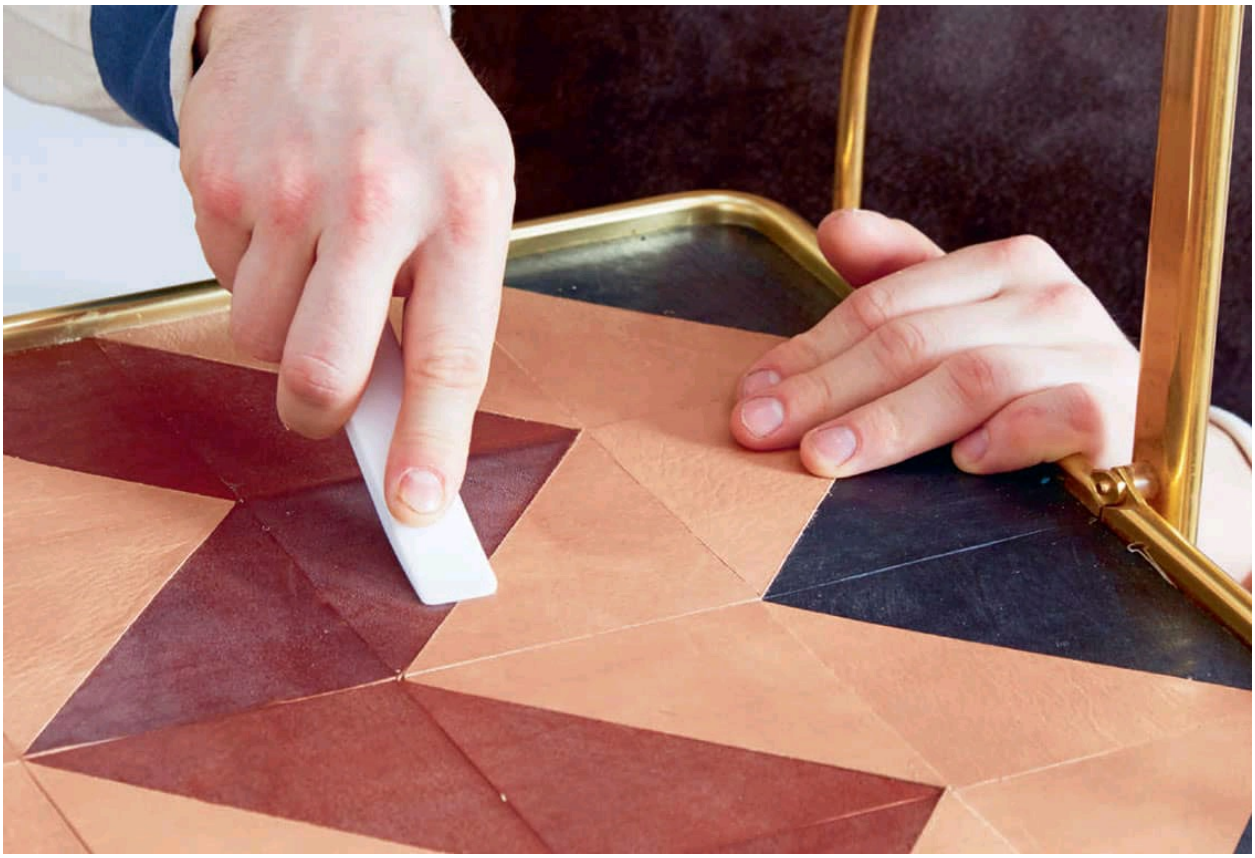
04. Position tiles

Work on an area of a few tiles at a time. Set the first edge down and ensure the whole of the edge is in contact with the adjacent piece. Insert the piece from a 45-degee angle, coming in from the top and the side and pushing towards the base of the edge. Use one of your hands to adjust the leather where needed. Don't stretch the leather or apply pressure until you are sure it has been set in position properly. If you take the wrong angle first time, quickly pull the tile up and reset. Cut the tiles around the perimeter as closely as possible – the pattern will have moved around by a few millimetres (fractions of an inch) so the tiles might be slightly out of shape by the time you fit the last ones.



05. Neaten joins

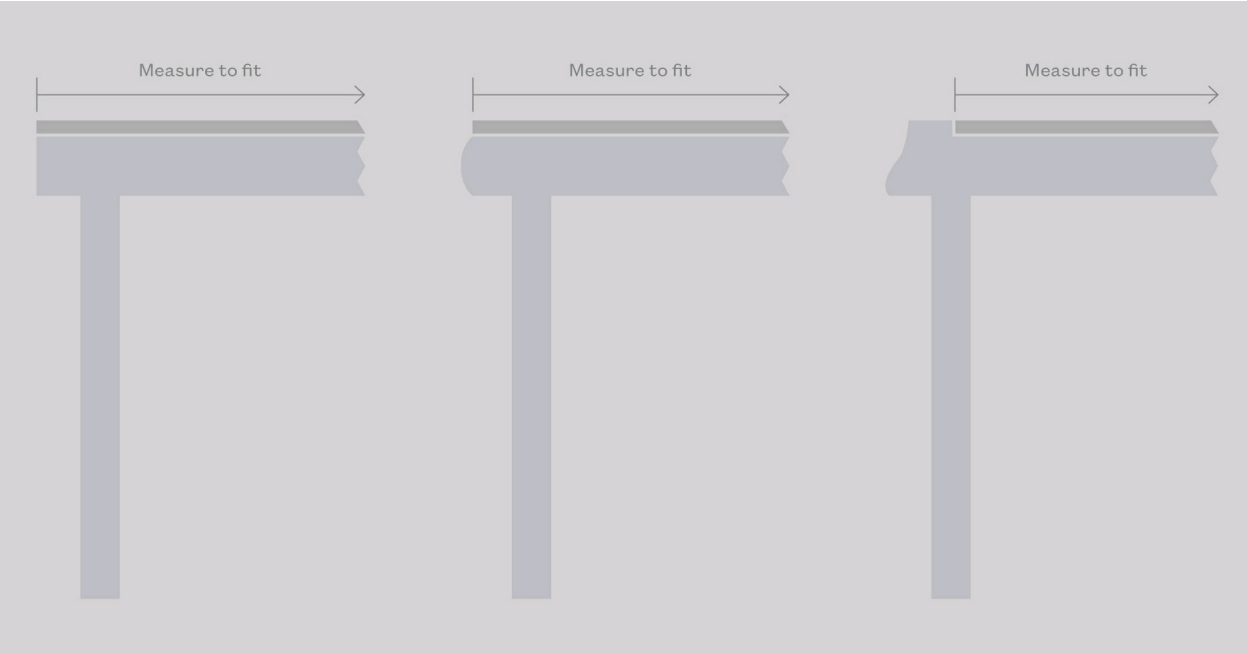
Work over the area just set with the bone folder, running it over the joins and pushing the leather into gaps where needed. If you have any overhangs or awkward corners extending out of shape, trim them back with a scalpel and remove them.



06. Final finish

Reglue any bits that have been pulled up. If you have any particularly squashed, wrinkled or misshaped tiles, take them up and replace them with spare tiles. Once satisfied, go over the surface with a roller. Use a neutral leather cream or wax and apply a coat once finished. This should restore the leather after it has been worked.

Table top



Sometimes you don't need to buy a new item of furniture – an existing piece might just need updating in order to become totally different. Many older desks have damaged leather tops and would look brilliant with a new leather replacement. Vintage ply, Formica or hardwood tables can be picked up online or at auction very cheaply. Use leather offcuts to tile the surface, or larger panels for a more unified look. Thick leather on a table is wonderful to write or play cards on. It adds warmth to a room and develops a great patina. Don't worry about spillages or marks – use a darker leather and with use the character will continue to grow. Use Carnauba wax or leather conditioner when it is looking dry and it will spring back to life.

Materials

- Table or piece of furniture with adequate surface
- Thick leather with a heavy finish – use all the same thickness
- Contact adhesive
- Gum tragacanth
- Leather cream or wax

Tools

- Knife or scalpel

- Burnisher
- Bone folder, preferably Teflon
- Bevel hand tool
- Canvas scraps
- Metal ruler & right-angle ruler
- Sandpaper
- Rubber roller

01. Cut leather

First measure the top of the table. Work out whether you want a single-piece leather top or one that uses a combination of larger offcuts. Depending on the shape of the table, you might choose to cut a single piece into smaller ones. (You can incorporate elements from the Tiled trolley, shown here, if you want to use lots of pieces.) Divide the surface of the table into equal measurements and cut the leather accordingly. Cut the edges that are to be joined with a slightly overhanging mitre of about 5 degrees. This ensures the seams stay minimal. Cutting thicker leather is tricky, so practise before you start. You do not want to undercut the grain, as this mean a gap in the joins.

Tip: Take extra care when cutting thicker leather. If you are using a scalpel, then the blades will have a tendency to bend. Try to cut through the leather with as few strokes as possible.

02. Prepare and glue surfaces

Sand the surface of the table top and prepare the back of the leather with sandpaper if necessary. Some leather has a ‘mossed’ back, which means it has a slick, smooth surface that won’t receive adhesive readily. If it is sueded already then there is no need. Do a dry run on the table to see you have cut the pieces accurately. Glue the leather with contact adhesive. You may want to put two coats to really get into the leather; if so, wait till the first one is dry before you apply the second. Wipe the table surface free from dust and then glue the surface thoroughly.

03. Apply leather sections

Take the first section and lay it gently on the top of the table. Don’t exert any force with your hands, as you may stretch the leather and put it out of shape. Likewise, any pressure will force contact with the surface of the table and cause it to stick. When butting joints up against one another, start from a high point and come in from 45 degrees to set your position, making sure the top edges of the leather meet. Then drop the leather piece to a flatter angle, all the while maintaining contact with the already set piece. Continue piece by piece until the table is covered.

Tip: If you stray or need to reset, pull the leather away with a sharp tug as you would when removing a Band-Aid. Remove any adhesive that is spent or congealed and reglue with fresh adhesive. This prevents visible lumps through the surface.

04. Neaten seams

Use a bone folder to run over the seams along the joins, closing any gaps by working the leather at right angles to the join until the gaps close. Don’t exert too much force or you will burnish and mark the leather top. You want to minimize the seams as much as possible. If you come up short on the edges, it is possible to lift the leather and use the bone folder to stretch the leather out, working it to the edges. Some types of leather have more give in them than others, but you should be able to stretch most with a folder by at least a few millimetres (fractions of an inch).

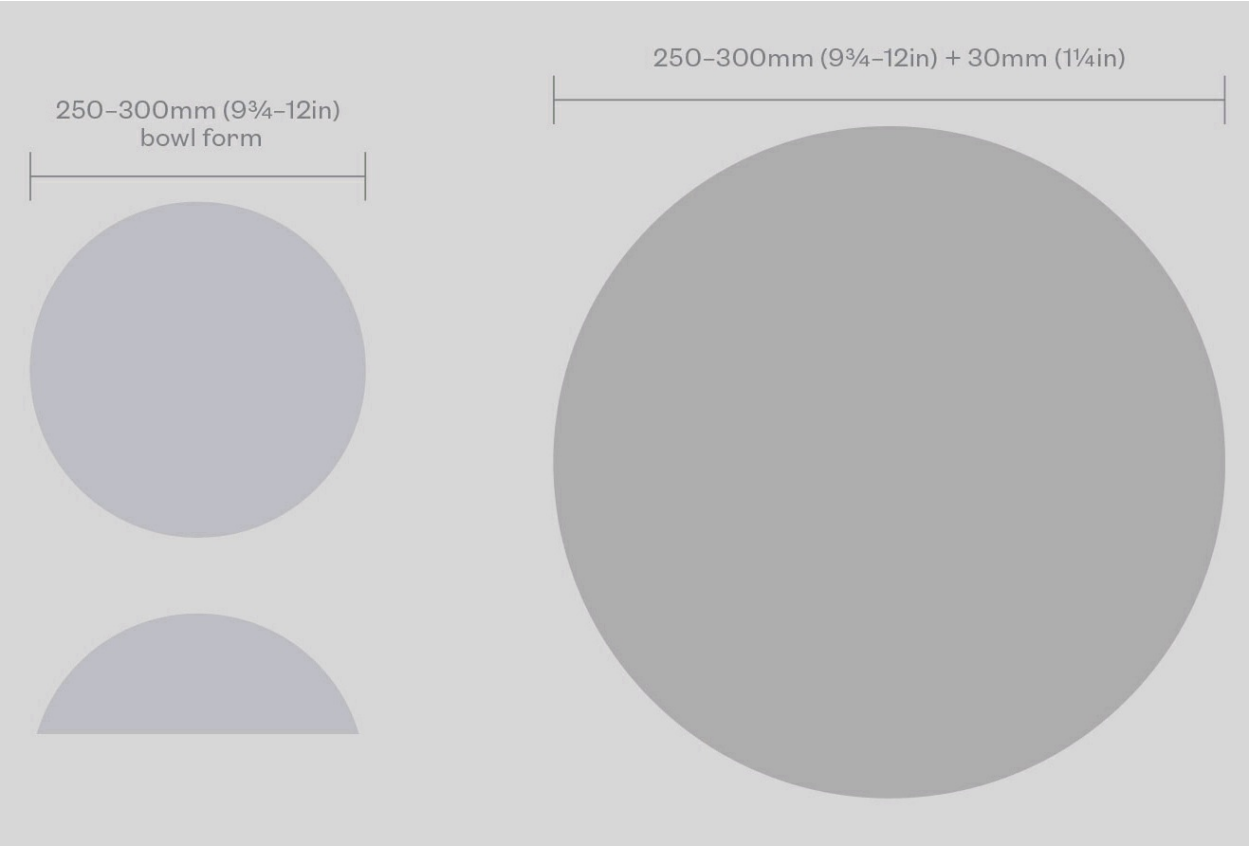
05. Trim edges

If there is any overhang or excess, then carefully trim this with a ruler and scalpel held steady along the edge, and then bevel the edges. Apply liberal amounts of gum tragacanth before burnishing with some canvas or soft cotton held tightly to your finger.

06. Flatten surface

Use a roller to finish off, rolling in all directions and exerting even pressure. Apply some neutral leather cream or wax once finished. Top up with cream or wax every few months as necessary to maintain the leather.

Lampshade



Wet forming is a branch of leatherwork dating all the way back to the Romans. Hides were boiled and placed over wooden moulds to be shaped into armour. The hides dried rock hard and provided a lightweight alternative to metal when lacquered. For a crisp and uniform finish in wet-formed items, a negative and positive mould should be made and clamped either side of the leather. This lampshade is the simplest use of the technique and results in a more organic form. Be very careful when cutting the leather from the mould: use a scalpel and try to cut the edges perfectly straight. This is a highly satisfying process and will be very rewarding if pursued further. Wet forming is fantastic for making hard cases for knives, belt pouches or camera cases.

Materials

- Leather about 3mm ($^1/_8$in) thick
- Piece of MDF or plywood
- Clear wax polish or Carnauba cream

• Pendant light fitting and flex

Tools

• Bowl to act as mould
• Scalpel
• Staple gun
• Bone folder
• Awl
• Burnisher
• Hole punch set (optional)
• Embossing tools (optional)
• Leather dye (optional)
• Sandpaper

01. Trim bowl

First, follow the directions shown here to create your bowl shape. Using a sharp scalpel, cut around the formed bowl when it is completely dry. Try to keep your hand as stable as possible and keep your cutting angle the same all the way around.

Tip: If you want to add patterns or a design to your lampshade, then do this before cutting it free. Use embossing tools, hole punches or leather dyes to add decoration. The variations are endless.

02. Mark light fitting

Take your light fitting and centre it on the top of the bowl. Trace around the edge onto the leather. Place the bowl back underneath for rigidity and cut out the circle to form a hole for the light fitting.

03. Finish edges

Trim any nicks or angled areas and sand all cut surfaces smooth. Bevel all the edges, including the hole for the fitting, then burnish them.

04. Polish shade

Apply a heavy coat of clear wax polish or Carnauba cream over the surface of the shade. This will give the shade a lovely finish and bring out the grain. Allow to dry.

05. Attach fitting

Insert the light fitting and screw the holding washer in place.

Tip: Be sure to have your finished light fitting installed by a qualified electrician.

Acknowledgements and resources

Special thanks to the following companies for the kind donation of leather for some of the projects in this book:

J & FJ Baker
(Log basket, Wastepaper bin, Square bridle leather chair, Wallet)

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(Tote backpack)

Metropolitan Leathers
(Woven bench, Glasses case, Bowl)

JT Batchelor
(Lampshade, Magnetic noticeboard)

Special thanks to Kerry Senior of the UK Leather Federation for his assistance on this project.

Many thanks to my family and to Isabelle, for helping to make this book possible and for your absolute support.

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This is a very useful resource with lots of members: **http://leatherworker.net/forum/**

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