

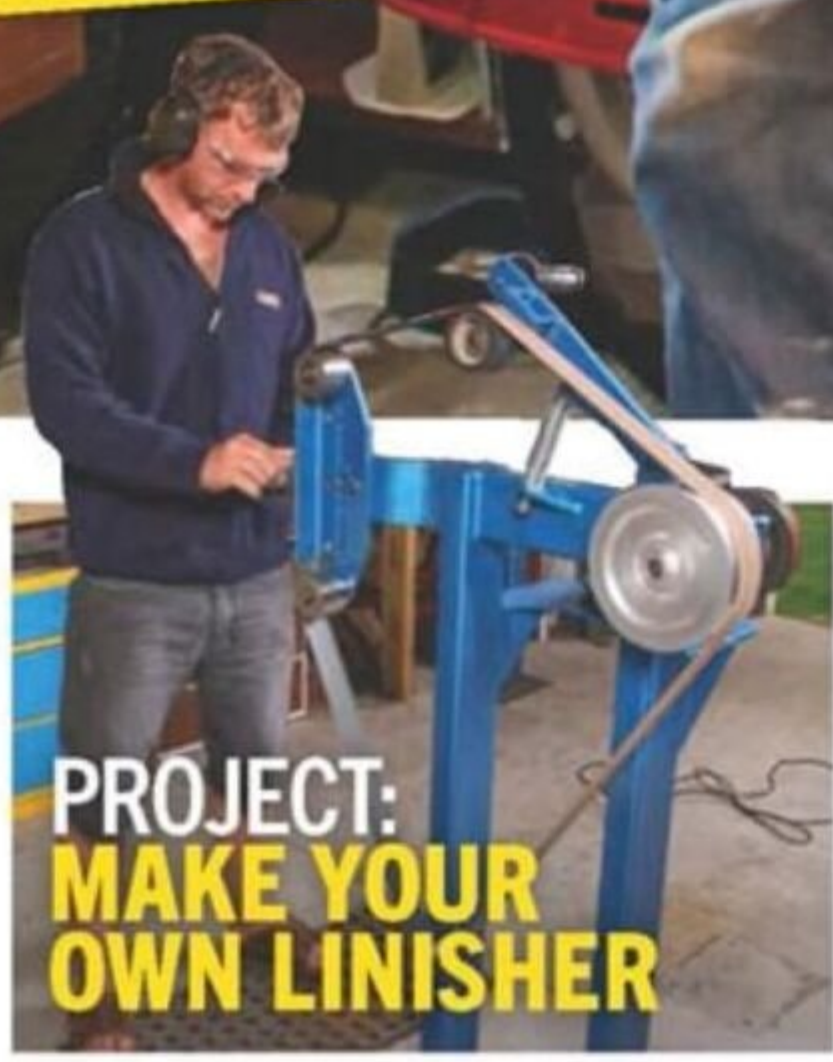


THE Shed

FEB./MAR. 2024
ISSUE 113
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I know this is stating the bleeding obvious, but what this publication is all about is sheds – what some folks do in them, what we can help readers create in them, and the spaces themselves. They look and smell great, and have a timeless beauty – they do to you and me, anyway; not everyone, that's for sure. Not everyone has our cultured tastes, right?

So, this issue has an abundance of sheds – not just folks creating in them as per usual, but also constructing them.

One of these articles is about a family shed built then added on to accommodate more family members as their creative needs came of age. The writer of the article, Scott Gavin, titled his article 'Another shed', as he thought surely our readers wouldn't be interested in yet another shed build, but I disagree; we are very much interested in it.

I never tire (and I certainly hope you don't, either) of learning how people approach the creation of this really useful and unique space. Sheds are like another home to me.

Scott Gavin's article is about adding onto a shed he originally built for his wife, first with one for his son and now for his daughter. It is a great tale of working

together as a family to make special spaces for all to enjoy, and learning design skills and more along the way to boot.

We also have our favourite US-based sheddie, Bob Van Putten, building a unique add-on to his shed. He tries out some eco-friendly materials and uses methods he has never used before – again, learning along the way. His family also joined in the construction and design to make a space they can all use and be proud of.

You could say the family that builds together ...

Our cover story in this issue is about Auckland sheddie, Chris Elliott, and what a skilled and enterprising fella he is. Check out his shed. He works on the Fiat Bambina and the scooters in that really confined space, demonstrating that ya don't need a mega shed to fulfil your workshop needs. It proves the time-honoured adage that size isn't everything in the shed world – I'm not sure who said that, to be honest.

So this issue has a lot of sheds in it and, "Yeah, so what?", I hear you say.

Nothing really. Awesome though, ay? 📁

Greg Vincent

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SIZE ISN'T EVERYTHING

A Jack of all trades with the heart of an Italian

*By Jason Burgess
Photographs: Jason Burgess*



Chris Elliot in his single garage shed, reflecting on his Fiat 500 restoration and electrification project



Refining a new lampshade mould

A cinematic late-afternoon light pours through the corner window of Chris Elliott's vest-pocket shed. The miscellany of collected artefacts, fabric, and vehicular memorabilia conjures up a neat yet cluttered bazaar in some exotic foreign land rather than an active workshop on the fringe of Auckland City. This concrete single garage is a celebration of creativity and productivity. Swinging a cat – or, for that matter, a hammer – might seem problematic in such confines but, when it comes to fulfilling a wide array of job briefs and cross-disciplinary commissions, Chris somehow makes things come together.

“Work inspires him; he is undaunted by learning new processes and diving into fresh pursuits”



A small sample of Chris's collectibles

A repurposed vintage Citroen radiator as display shelf





Chris' electrification and restoration remains as faithful to the original Fiat manual as practicable

It is not size that counts

The project foremost on Chris's mind is the one taking up most of the space: the restoration and electrification of a 1962 Fiat 500 Bambina – his city car.

"I like little cars," Chris says proudly. "My car was a Fiat 500, because I couldn't get a Citroen 2CV. My second car was a Renault 4 because it was a bit like a 2CV. Then, by the time I was 21, I had two 500s. One I bought off a dentist. The previous five owners of that had all been dentists."

As far as his own professional experiences go, Chris's have been admirable. His career has spanned everything from lamp making, vehicle restoration, and house renovating to production design on big budget and art house movies, TV features, and commercials. He also enjoys designing and assembling bespoke furniture for creative office fit-outs. Work inspires him; he is undaunted by learning new processes and diving into fresh pursuits. He can be simultaneously engaged in all the aforementioned activities, and at present, as he branches out with recent experiments in clay and room lighting, he appears to be coming full circle. ►



A quick dust off for a photo shoot

“John and Roland opened a window and made me realise that you could do whatever the hell you want”

Chris admits to recently selling his once-coveted Lancia Fulvia with a Zagato body, because, “It had fallen out of my area of interest.”



One Chris's table lamps that began as a lockdown project



Bikes, Britten, and boundless possibilities

Chris says he comes from the generation where kids built and tuned their own bikes. As a teenager, he made and sold skateboard decks, drawing designs in felt pen on the underside to match American skate graphics.

“We didn’t want to be American; it was just a sentiment of style on that lack-of-information-highway that we used to live on.”

Growing up in Christchurch and fresh out of school, Chris scored a job with John Britten and his right-hand man, Roland Logan, doing up an old stable, making lamps, and refurbishing motorcycles – Ducatis and Triumphs. This was just before Britten set out to make his own bikes.

“John’s motorcycle work was: Yes!” explains Chris, “but he was also his own resource, with his own sense of form, engineering prowess, and focus. His ability to join dots was profound.”

Britten lamps

At the time, Britten was producing table lamps to fund his house/stables renovation. Chris assisted, learning to bend glass, solder, and assemble as he went.

When enough lamps were completed,



Peter Jackson inspects some special effects handiwork on the set of *Braindead*



Harvey Keitel in *The Piano*

the team would go to work on the house.

“As well as doing up his stables, John was making chairs,” says Chris. “He had a love of Art Nouveau. He would make a handle in a style he liked, then he’d get [some] cast up and have old Bob – an engineer who turned up in an Austin 8 with the passenger seat missing, and who used to engineer in his back shed – to make a set of mechanisms for them.

John would then make up another set for the latch mechanisms to run all the French doors in the house. That handle would then be reinterpreted again and made into the cupboard door handles with a whole other set of mechanisms. He wouldn’t be bothered by doing it. He would just do it. That was my university. It was very special and great fun. John and Roland opened a window and made me realise that you could do whatever the hell you want.”

The world of film

From house fit-outs and modifying motorbikes, Chris’s next move was fashion school in Wellington. He was underwhelmed by fashion.

He reckons he attained his diploma, but misplaced the certificate and has never seen it again. Instead, he ended up in the capital’s pre-Peter Jackson but burgeoning film industry. Later, he was called up as costume designer for Jackson’s third film, *Braindead*.

Chris’s on-set memories are a Hollywood epic in their own right. Off the bat, the first ‘big’ production he remembers working on was *Willow*, with Ron Howard.

“George Lucas was on set every day with Ron Howard. One day, we had 200 horses and 600 extras on set in Queenstown.”

He reckons it was a privilege working

in the role of standby wardrobe on Jane Campion’s *The Piano*. His role was looking after the two male leads – Sam Neil and Harvey Keitel; dressing them, managing them on set, and keeping them in costume and in the right place.

“Such amazing people to work with.”

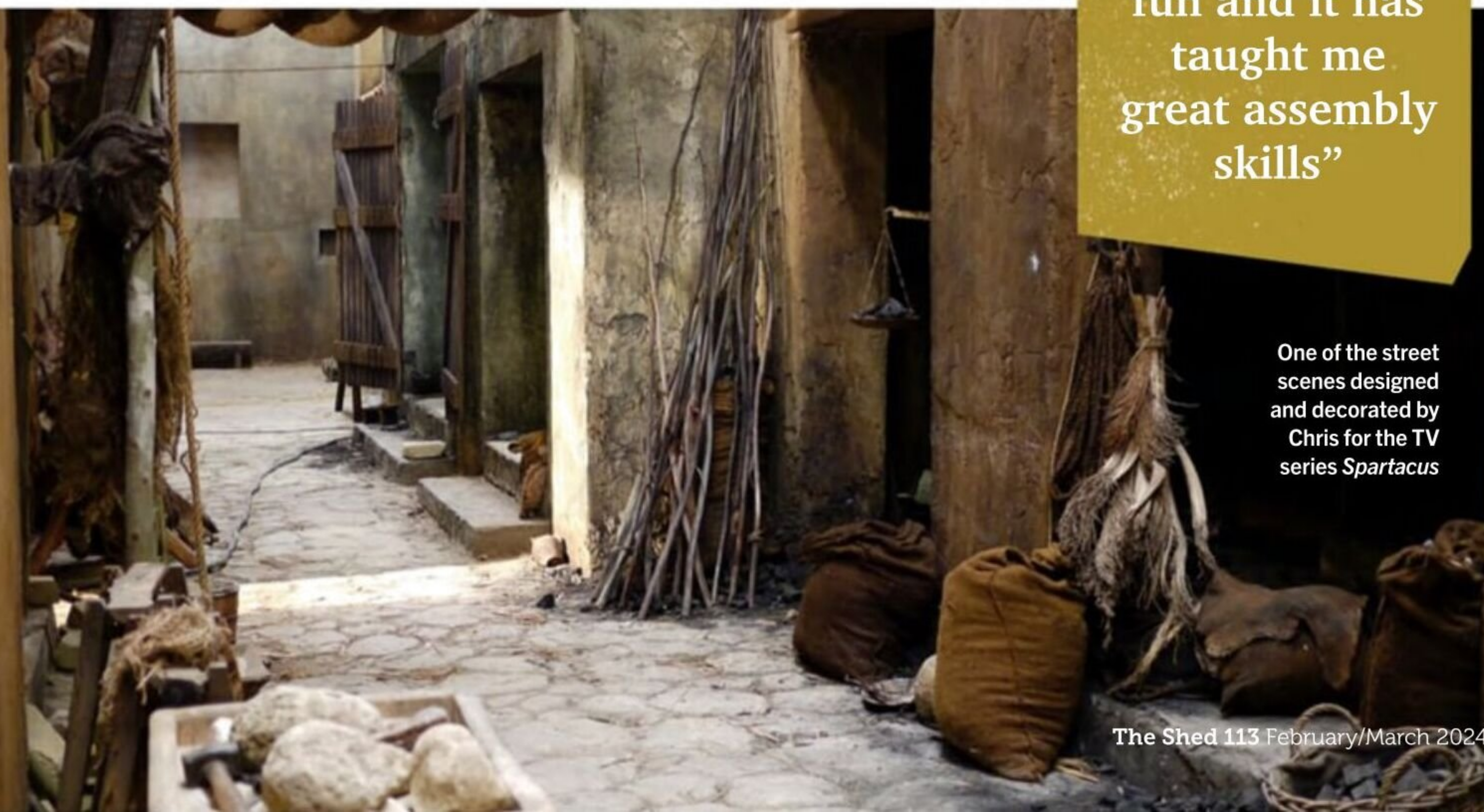
Jack of all trades

From there, Chris worked as on-set art director for Campion’s *Holy Smoke*, followed by movies such as the third *Underworld* film, *The Lovebirds*, *Half of a Yellow Sun* – a Nigerian folk-tale – and New Zealand features *Savage*, *Whina*, and *Juniper* with Charlotte Rampling. He has designed and decorated for TV ads, dramas, and mini-series such as *Spartacus*. Television is his “Jack of all trades” place.

“The film industry has been great to me. I’ve worked in India, Nigeria, Australia, the Pacific, and all over this super-cool country. The good thing about being a designer is that you are interpreting a client’s or director’s vision, and what the production needs. You shape your taste into what works for them. If you have good taste and a good eye then you become a conductor of sorts – always contributing stylistically. I love that; it’s the best fun and it has taught me great assembly skills and how to coordinate people and the trades.” ▶

“It’s the best fun and it has taught me great assembly skills”

One of the street scenes designed and decorated by Chris for the TV series *Spartacus*



Viva Italia

Chris has a soft spot for Italian motoring design, which he believes “has a lovely sensibility”. Needless to say, he is a big Carlo Abarth fan and, as a teenager, he cold-called at the Abarth factory.

He remembers, “I just turned up at the gates – I was naive – but I ended up getting a personal tour through the factory with one of the bosses.”

At that time, the factory was still producing Lancia Integrale rally cars. Sadly, Chris did not take any photos that day but he did buy a steering wheel. He admits to recently selling his once-coveted Lancia Fulvia with a Zagato body, because, “It had fallen out of my area of interest. It had become too valuable for me to actually enjoy and fix myself.”

“It had become too valuable for me to actually enjoy and fix myself”



Above and below: Vespa SS90 Super Sport, a restoration project by Chris for Piaggio NZ



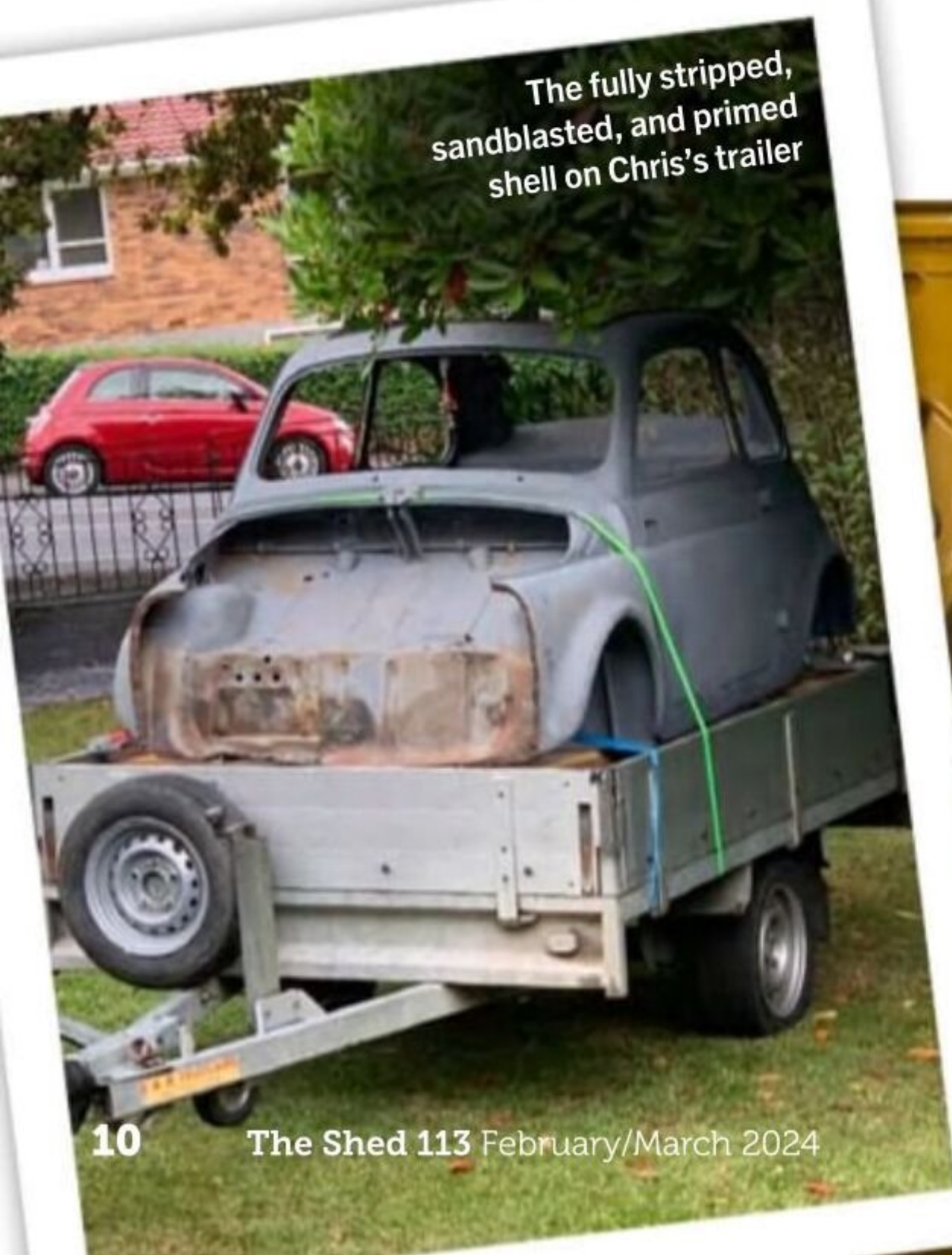
Vespas

When it comes to two wheels, Chris has been riding and working on Vespas since he was a teen. He recently restored a SS90 (Super Sport) for the Piaggio importer.

“The SS90s are as rare as rocking horse poo. Only 5000 were made worldwide and about 1000 came here. I had it repainted, then I repolished all the original levers and fitted all the springs.

The front shock and shock cap are new. I didn’t need to do any engine work, but I tend to avoid going into casings as there are people much better at that than me.”

With the attention Chris gave to such minor details as fitting the correct spring to hold the owner’s manual and the correct air cleaner and its associated wingnuts, he thinks an aficionado “would feel really content about its state”. ►



The fully stripped, sandblasted, and primed shell on Chris’s trailer



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The golden olive Fiat 500 with a fresh steering system awaiting installation



The golden olive button stick, the inspiration for Chris's colour choice



Original Fiat badges, front and rear (below)



Tiny spaces require tidy work stations

Bambina

The thing that interests Chris about Fiat 500s is, “their sense of an aggressive purpose. You could say a Mini has that, but then Minis were designed by an Italian.”

The Fiat 500 (Cinquecento) first entered production in 1957, and was made for 18 years, with 3,893,294 finished cars leaving the line before manufacturing wound down in 1975.

The '62 Bambina is an early configuration, with the infamous suicide doors and a roof that can be unbolted and refitted with a full fabric roof – as Chris has already done.

“It is a cute model,” he says. “To find a specimen with only 34,000 miles [nearly 55,000km] on the clock, with an already fully stripped, sandblasted, and primed shell, is unheard of.”

Chris had just one tiny spot of rust to take care of before getting the car painted.

Colour choice

The inspiration for Chris's choice of colour came from a collection of bakelite beads and button sticks that he bought in London, a couple of which were in his favourite hue: golden olive.

“A lot of people call it baby poo,” he says. “When I took it to Mike, my paint guy, he wasn't sure it could be done because he didn't think it was a single colour.”

After an intense philosophical conversation with Mike about colour, Chris eventually got his golden olive. Any original imperfections in the bodywork have been left as part of the vehicle's character. The interior upholstery and dash are all original and in A1 condition so they remain as is.

Golf cart engine

Under the hood, the engine cavity accommodates the new AC 20 electric



An imported set of CN54 radial tyres, designed for Fiat 500s



Original hubcaps ready for a polishing, dents and all

motor perfectly, with enough room to position the battery box and controller right above it. The motor was developed for golf carts and weighs just 60kg. Petrol-powered 500s originally ran at 23hp but, according to Chris, “The more power you give them, the more horsepower you get – up to a maximum of 68hp.”

He explains that he is aiming for a city-friendly vehicle, capable of motorway speeds.

“I’m going for 48hp (about 72 volts) to get around Auckland’s hills and go longer distances. I have set this up with later-model running gear, which is a bit stronger, to run the extra horsepower that the electric motor is going to provide. I can still use the gearbox because [it] is awfully tough. That gives me speedo, drive, differential, and reverse.”

Because the original 499cc, two-cylinder engine was “pretty shallow”, Chris is building an adaptor for the bell housing and a subframe to hold the battery and battery box, before wiring it up.

Every nut and bolt

As with all his vehicular restorations, Chris has removed all the original nuts, bolts, and fittings for cleaning and re-zincing. He sourced new Fiat-branded replacement fixtures and accessories direct from the factory and imported a pristine set of CN54 radial tyres, which were expressly designed for Fiat 500s, plus mags – all ready to fit as soon as the brake lines are reinstated. Chris believes Fiat 500s are underrated.



Another table lamp creation



Original nuts and bolts all cleaned and re-zinced

Brand new Fiat-branded replacement fixtures

“They are 100 per cent petrolhead cars; you can modify the hell out of them. Nowadays, you can get them up to 100 miles per hour. All you need to do to maximise driving pleasure and make the car respond well [is to] change out the cams, carbs, and air cleaners, install sports exhausts, lower the chassis, and add alloy wheels. I’m really no different to a bogan kid or a V8 enthusiast.”

Shedding fresh light

A few years ago, after filming in Sydney, Chris attended a pottery class there. During lockdown, he felt motivated to order some clay and start experimenting.

Inspired by the sculptural work of Henry Moore and Barbara Hepworth, he began cutting timber templates on his bandsaw and working from those. As far as clay work goes, he acknowledges that he is still learning but he enjoys the adventure of not fully knowing what he is doing. ►



Chris opening the door to his happy place



“They are
100 per cent
petrolhead
cars”
“I’m looking
forward to
getting back
into the shed”

He says, “Combining pottery with woodworking is an exciting journey.”

This process has led him back to lamp making. To complete his lamp-stands, he upcycles existing lampshade shapes with Nigerian fabrics that he bought while on location in that country. Having now completed a further pottery course, he reckons he is even prouder of his lamps than when he first started. As digital technology negates the need for giant lighting rigs, Chris has begun to incorporate his lamps into his film work. He has also sold a few.

Reno plans

Chris relishes any opportunity to dive into another movie project, but that work is not always continuous. So, in addition to continuing his interior design and TV ad work, he has bought a townhouse to renovate, to allay any risk of downtime.

“Doing up the townhouse has been a supreme blast,” he announces. “I’ve made an emotional product – no white anywhere. It is useful, elegant, and funky. Courtyard, bike shed, a cute turnkey home – but now I’m looking forward to getting back into the shed. The minute I finish the house, I will be back on the Fiat.” 🚗



A couple of lamp shades covered by Chris with Nigerian fabric that he bought while working on location for the film, *Half a Yellow Sun*

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Graeme Topp and his WWII folding sapper's saw, sometimes called a trench saw. In the background are two restoration projects: his father's Austin light truck and the 1920s Graham-Paige sedan

BEHIND THE SHED DOOR

Self-drive shed tours – along the lines of the popular garden tours – may well become a popular pastime

By Ritchie Wilson

Photographs: Ritchie Wilson

My wife is a very keen gardener and I've been on a few garden tours with her over the years. These were fundraisers for the community groups that organised them. I asked my wife what her most vivid memories were of the various tours. She immediately recalled one, decades ago, at which a packed lunch was provided.

The garden of one of our neighbours was included in a tour organised by the botanical society she belonged to. She said that she got a severe case of the giggles when folk who had paid to visit her (in my opinion very nice) garden turned up and respectfully wandered around, viewing the plants.

The last garden tour we went on was a couple of years ago, with my sister and her husband, on Wellington's Kapiti Coast. My sister would like to live in the area and was interested in the neighbourhoods, while my wife was most engaged by how the gardeners coped with the light, free-draining coastal soils. I was pleased that some of the larger properties had a shed or workshop that I could peek inside.

A shed tour – heaven!

A variation on the theme is shed tours. Christchurch's first happened in early November last year. It was run by the relatively new Rotary Otautahi Passport volunteer group.



Graeme Topp's Morris Minor convertible



Legoland. An L-scale locomotive pulls a train in front of a street of Lego buildings. The buildings feature custom lights and sound systems

Deb Gimblett, one of the organisers, very kindly sent me a map showing the locations of the 13 sheds available to visit. One was only a couple of blocks from our house, so it was the first we went to.

Sandra Isaacs is a self-employed and self-taught electronics engineer who likes Lego a lot. Lego makes a series of trains in what is called L-scale (37.5mm gauge, about 1:40 scale) and, in her double garage, Sandra has an L-scale track layout, which runs around a district of Lego buildings. Amongst quite a few other buildings are a diner, a jazz club, and a fire station.

Lego issues a new building – called a Lego Modular Building – every year. They are a bit more than 30cm high and are highly detailed. Sandra has installed lights in these and, in some, sound systems.

For instance, jazz music comes from the Jazz Club and lights go on and off in the windows of various buildings. The sounds and lights are controlled by Arduino ESP32 microcontrollers.

She controls the rail network's engines from a control box made from laser-cut particle board. The laser cutting was done – free – at the Makerspace at Tūranga, Christchurch's central library, which also has a 3-D printer and sewing machines, etc. for citizens to use.

Sandra was first exposed to electronics at a young age by the brother of a friend, who was a ham-radio operator. Sandra became keen on assembling her own radio transmitter and receiver. She now does work for several of the many electronics companies located in Christchurch. ▶

“A self-employed and self-taught electronics engineer who likes Lego a lot”

Three Lego modular buildings: fire station, jazz club and diner. The lights aren't standard



We received a very warm welcome at all of the sheds



The vibrant colours of an Anne Harding leadlight door

The colourful leadlight works displayed outside blend with the spring flowers in her immaculate garden

Immaculate gardens as well

A couple of blocks away was the leadlight glass studio of Anne Harding. Anne works from the single garage attached to her house; her old kitchen bench has been repurposed as her work surface. Anne did a leadlight course at Trinity Glass in the central city and buys her coloured glass and the lead came that holds the glass together from there. She has completed some commissioned work but prefers to work on her own designs. The colourful leadlight works displayed outside blend with the spring flowers in her immaculate garden. Immaculate gardens were a feature of other sheds we visited. Two of them were in the east of the city. The first, over the road from the sand-hills of New Brighton beach, was the shed of Plain and Simple designers Simon and Jane. It was described on the tour map as a “Mondrian-inspired design studio” and is Simon’s workspace.

Mondrian was a Dutch artist working in the early 20th century. Part of the De Stijl art movement, his distinctive paintings featured rectangular blocks of primary colours as well as black and white.

Jane showed us their woodworking workshop – another double garage – where a commission from a local university was waiting to be finished. She writes a DIY column for *New Zealand Gardener* magazine and works on the

projects described in the garage. The space is well equipped with woodworking gear.

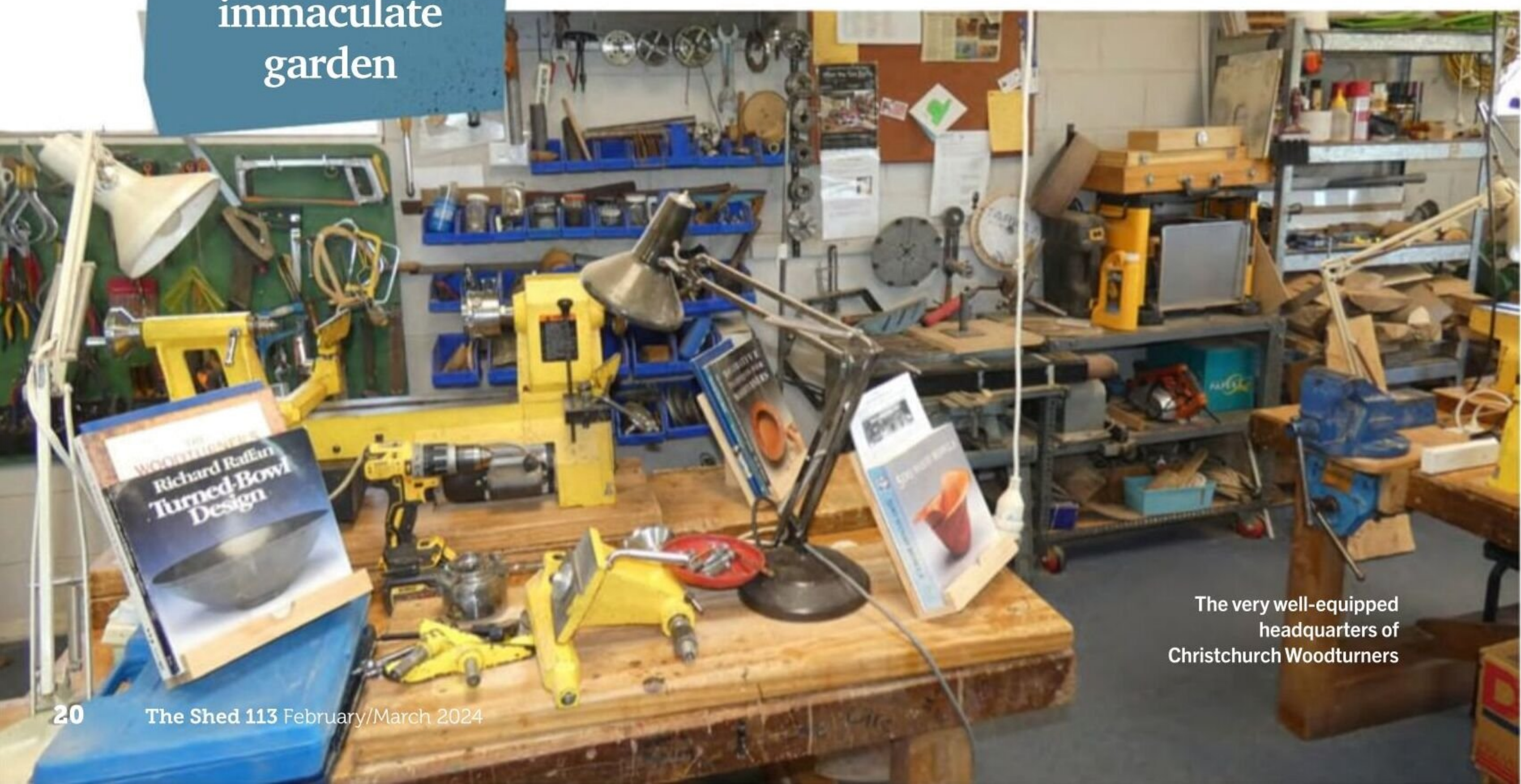
The garden was noteworthy, using coastal and desert plants that thrive in the sandy soil and can tolerate the salt-laden air.

The colourful cube-shaped shed, about 2.5m to a side, was the winner of the 2022 NZ Gardener Resene Shed of the Year competition.

Santa’s floats

The 1974 Commonwealth Games were held in Christchurch, mostly at the QE2 complex, which is a kilometre inland from the beach. The floats for the Christchurch Santa Parade are worked on and stored in the huge former Games gymnasium.

Twenty or so of the much-loved travelling extravaganzas are crammed together waiting for their annual outing. In a workshop in one corner, 91-year-old Ian Boswell creates new features for the floats. He had just finished a crocodile for the Peter Pan Pirate Ship and was working on a Cheshire cat for the Alice in Wonderland float. He uses large blocks of polystyrene, which he skillfully transforms into the required form before they are painted. Ian used to work in engineering, but he says that he developed his artistic skills while working on theatrical productions.



The very well-equipped headquarters of Christchurch Woodturners



The colourful cube shed viewed from the interior of Jane and Simon's woodworking space



The interior of the Mondrian-inspired cubic shed. Designer and builder Simon runs his Plain and Simple design business from here



Jane at the door of the prize-winning cubic shed

Some of the floats are pulled along by Massey Ferguson tractors, and I counted four of the grey machines. When I was a kid, the parade was known as 'Hays Procession' and was sponsored, starting in 1948, by the long-gone Hays Department Store. This year Mainfreight, the logistics company, is the sponsor.

The Christchurch Woodturners Association

Another two sheds were in the Riccarton area, and we visited them next.

The first was the watercolour studio of Therese Boustead, called the Y-Art Studio and Gallery. A former academic, Therese occasionally teaches a mathematics class



Christmas procession floats stored in the old Commonwealth Games gymnasium

“Ian used to work in engineering, but he says that he developed his artistic skills while working on theatrical productions”



Therese Boustead at work on a watercolour in her Y-Art studio

One of Therese Boustead's watercolours



Her studio is a custom-built space at the side of her house, at the end of a really impressive garden

at the university. Most of the time, however, she paints watercolours of birds. Her studio is a custom-built space at the side of her house, at the end of a really impressive garden.

The next shed was in an old scout den at one end of a park, hidden behind roadside houses. For the past five years, this has been the home of the Christchurch Woodturners Association, whose 120 members can work towards a National Certificate in Woodturning.

The shed is crammed with gear: yellow Woodfast lathes with NZ-made Nova scroll chucks mounted on former Department of Education woodworking benches, Equipoise lamps, bandsaws, drills, and stored wood. Four new lathes were expected to arrive in the week following our visit. Workshop supervisor, Noel Graham, said that the membership, a third of whom are women, ranges in age from 13 to about 80.

Restoration shed

We then travelled north of Christchurch to visit the shed of engineer Graeme Topp. Until a few months ago, this was the premises of Graeme's business, which worked on the machinery of commercial bakeries. Another business, which he has retained, makes parts, such as bars and exhausts, for Triumph motorcycles, using a robust tube-bender and an Australian Nuttall lathe.

The shed is now the home of several vehicles, mainly Austins, which Graeme is starting to restore. Dominating the space is a 1920s Graham-Paige, which is associated with a quite bizarre story.

The tale starts in Argentina in 2000, and concerns a couple who drove a 1928 Graham-Paige the length of the Americas, sleeping in the capacious sedan, and eventually arriving in Alaska. From there, they traversed much of Asia and eventually found their way to New Zealand.

On the wharf at Lyttelton, they were told: “My mum has a car exactly like yours sitting in her backyard under a hedge.”

This was the car now in Graeme’s shed. The couple took needed items from it, such as the generator, and continued on their travels. The arrival of four children complicated matters, so their car’s chassis was lengthened and an additional panel was added between the doors to extend the body. They now had a Graham-Paige stretch limo and motored away, out of our story.

Quite a history

The car under the hedge was sold to Graeme some years ago and, after he retired, he started to investigate its interior. One of the things he found was a long, narrow banner, professionally sign-written. This had been attached to the perimeter of the world-travelling Graham Paige’s roof rack when it arrived in New Zealand and was abandoned, for reasons hard to fathom, in Graeme’s car. The banner now hangs on the shed wall, along with many other interesting items such as Planet Jr cultivators, two-man saws, wood planes, and a WWII British Army folding saw.

Each platoon or vehicle in the Army had such a saw – also called a sapper’s or trench saw. American marines were issued with a very similar item. This one was made in Sheffield by SE Norris and Co. The saw is in a compact leather case with 1941 stamped on it. The case also contains two wooden handles, but originally it would also have had a triangular file, for sharpening the saw, and a simple saw-set.

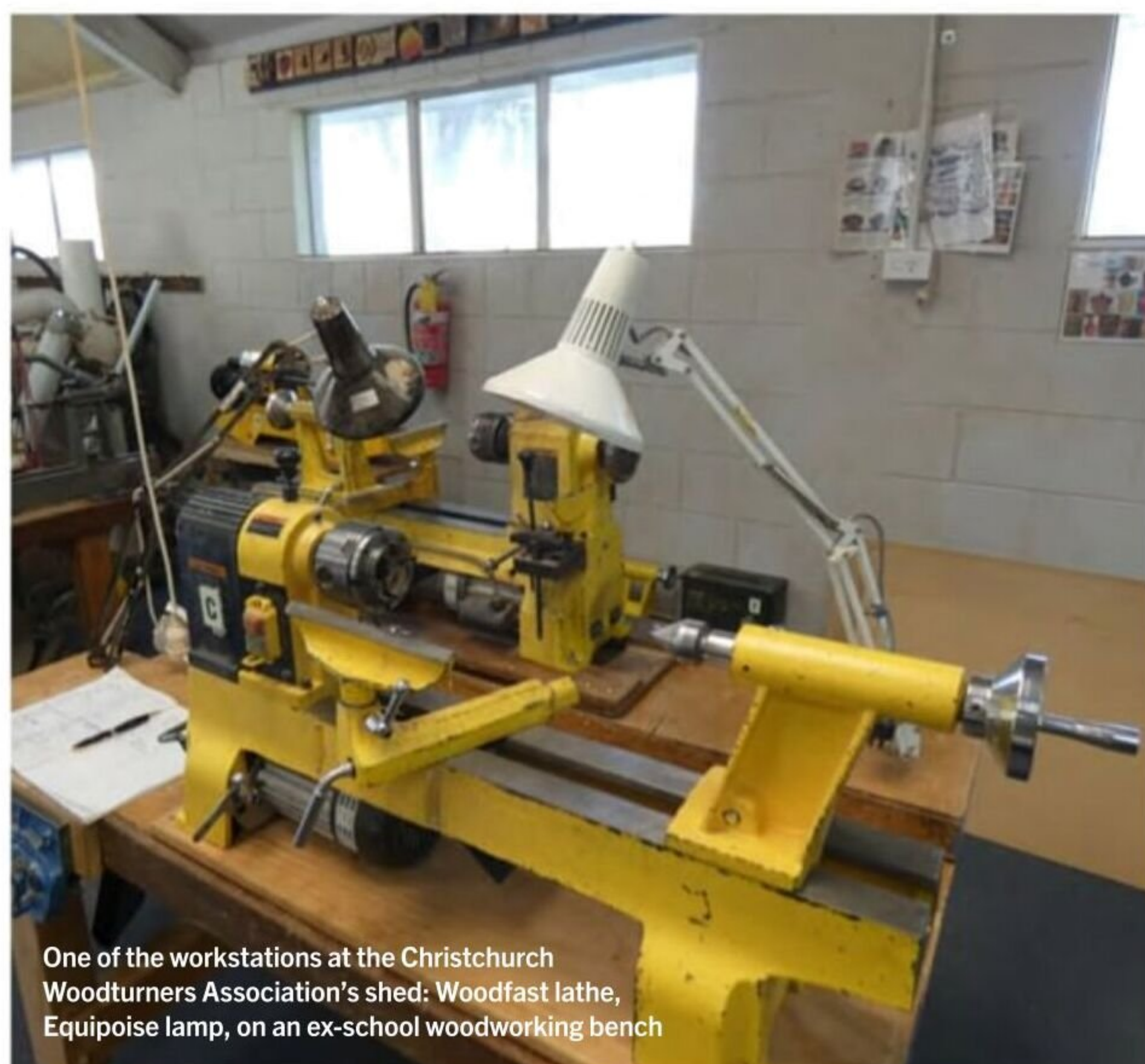
Hungry work this

The only food we had had during the day were an excellent couple of scones with jam and cream at the Y-Art Studio, so we continued north to the village of Cust for a late lunch.

We visited about half the sheds on offer, and I regret that we didn’t see more. The people we met at the sheds were – without exception – outstandingly pleasant. They all had interesting stories to tell, and made us feel welcome.

Deb Gimblett was happy with the way the self-drive tour went. She has received positive feedback, and thinks it may become an annual, or biannual, event, with an expanded number of sheds.

Shed tours are a lot of fun, and I hope they have more of them. 📄



One of the workstations at the Christchurch Woodturners Association’s shed: Woodfast lathe, Equipoise lamp, on an ex-school woodworking bench

THE SHED ONLINE

What’s happening online at the-shed.nz?

Every week, we upload new content onto The Shed website to add to the hundreds of articles and videos already on the site for readers to discover, learn from, and enjoy. Some uploads of the past few months include:

Knowing how to use dies and taps can be a useful skill in the home workshop

<https://the-shed.nz/cutting-threads-by-hand/>



Video of the wooden fairground organ built by David Dilks

<https://the-shed.nz/video-of-the-wooden-fairground-organ-built-by-david-dilks>



Project: Make your own tambour lounger

<https://the-shed.nz/fun-in-the-sun/>



The mayor, his shed, and his vintage cars

<https://the-shed.nz/his-worship-the-shed-and-vintage-cars/>





FRANKTON THUNDER BACK FOR 2024

Enjoy an extravaganza of machines, competitions, steampunk, food, and live music, while knowing you are doing your bit for a good cause

By Geoff Lewis

Photographs: Geoff Lewis

Late summer 2024 will see the Frankton Thunder, Automotive and Community Festival return in and around Commerce St, Frankton, Hamilton.

The festival will include displays of classic and custom cars, military vehicles, motorcycles, wild inventions, and re-enactors, along with a photorama, Miss Frankton Thunder and Thunder Ink tattoo competitions, steampunk, food, and live entertainment.

Frankton Thunder is supported by the LJ Hooker Frankton Thunder Cruise-in and 'Toys for Charity' run. Cars and bikes will assemble from 8.30am at the Cambridge Raceway, Taylor St, Cambridge, and depart for Frankton at 9.30am.

For 2024, Frankton Thunder is delighted to announce a new feature: Thunder Steam – a collaboration with the Glenbrook Vintage Railway, which has offered to provide steam shuttles from Frankton Station across the Waikato River to Ruakura, and a steam excursion to Te Kuiti.

Organising committee chairman, Ken McGeedy, said Frankton Thunder was a broad-based festival that attracted thousands of participants and was pleased to recognise the significant railway history of Frankton Junction – at one time the largest rail marshalling yards between Auckland and Wellington.

Now in its sixth year, Frankton Thunder is a charitable event in support of the community work of the St Vincent de Paul Society.

**Frankton Thunder: 9am to 3pm,
Sunday, 10 March 2024, Hamilton.**
facebook.com/franktonthunder. 📌

**Thunder
Steam – a
collaboration
with the
Glenbrook
Vintage Railway**





OSH RULES



Dear Greg,

The bottom picture on page 75 of issue 112 of the magazine (*The Shed* December/January 2024) is of a very unsafe saw-bench.

To see what I'm on about have a look at: <https://rollestonshed.wordpress.com/safety-switch-on-circular-saw/>

Basically, with all the H&S talked about these days, this should be mandatory.

Sandy Ferguson

Rolleston Mens Shed

The writer of *The Shed* "Table Saw Sled" article replies:

Table saws, while they have the capacity to cause serious harm, are not in my opinion inherently dangerous unless used carelessly.

In the Mens Shed blog post [mentioned] (<https://rollestonshed.wordpress.com/safety-switch-on-circular-saw/>) they have come up with a clever way to turn the saw off. If I still had one of those saw-benches, I might even make that device. It was tricky to find the switch without looking; the best solution, though, would be a foot-operated switch similar to what you find on sewing machines.

My current vintage saw-bench is much safer than the Makita as it has a knee-operated off button, where you don't need to take your eyes off what you're doing to turn the saw off.

I don't like mandatory anything; I was taught to take responsibility for your actions (and mistakes). I've done stupid things, hurt myself, and learned from it.

These days, everyone has rights but not enough people take responsibility. Health and safety is about finding someone else – other than the idiot operating the machine – responsible for 'allowing' the accident to happen.

You can have all the health and safety systems in the world and extremely well-designed equipment, but if it's used without care, then someone will get hurt. If the operator ignores good working practices, it's their fault.

True accidents are rare; most 'accidents' are the result of a series of bad choices, and, if enough occur, people can get seriously hurt or even killed. While [that is] tragic, the solution is not more regulation; it's teaching people to take 100 per cent responsibility for themselves. 📺

Andrew Broxholme

LETTER OF THE MONTH PRIZE

Every issue, our Letter of the Month winner will receive a copy of *Best of The Shed* 1 and 2. More top projects from 15 great years of *The Shed* magazine.

Letters should be emailed to editor@the-shed.nz, or posted to Editor, *The Shed*, PO Box 46194, Herne Bay, Auckland 1147.



Odd Jobs

Make your own wheelie bin storage



From trash to flash – make unsightly wheelie bins go incognito with this intermediate-level DIY project.

Project includes:

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- ✓ Cut lists
- ✓ Step-by-step video, photos and instructions
- ✓ Recommended Resene products



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Leif sharpens
a knife on his
finished linisher

MAKING A LINISHER

Constructing the “most used tool in the shed”

*By Leif Haseltine
Photographs: Rob Tucker
Drawings: Jean-Pierre Bauters*

I needed a belt grinder/finisher for knife-making. A large range of tasks is involved in knife-making, and most of the affordable, commercially made machines are unsuitable. They would be good for only one task; if I were to buy, I would probably have to buy two or three of them.

I decided I would make my own, with changeable tooling heads, that would allow me to make additional heads to fit it later.

I wanted to use different-sized belts on it, one being 50x2745mm. This is easy to get and has a good range of grits available. It is a long belt, so it is cooler when it grinds and I get more knives per belt.

I also wanted to use the 50x1870mm (2-inch by 72-inch imperial) hybrid belt designed for knife-making – not so popular here in New Zealand.

The online selection is huge and specific to knife-making with leather strops, Scotch-Brite belts, etc. As I get a few supplies from the US, I wanted the option to use these as well.

Typical knife-making machines are a three-wheeled design: drive wheel, tracking wheel, and contact wheel. By adding a lower jockey wheel on one of the legs, I figured I could do one to take the longer belts.

Parts

The machine consists of about five main parts:

- Main body with legs
- Wheels
- Tracking/tensioning arm
- Motor mount
- Tooling head

I went about doing these parts separately; they would all come together at the end.

The mainframe was simple, with a base plate that bolts to the floor, two legs up off that to the main body, and a motor mounted to the side.

I chose to side-mount the motor because it enables me to run it off V-belt pulleys, which I can change for different speeds and different grits. This means I can gear it right up later and run a variable-speed drive to change the speed at the flick of a switch. For now, however, it's swapping pulleys until that bargain pops up on Trade Me.

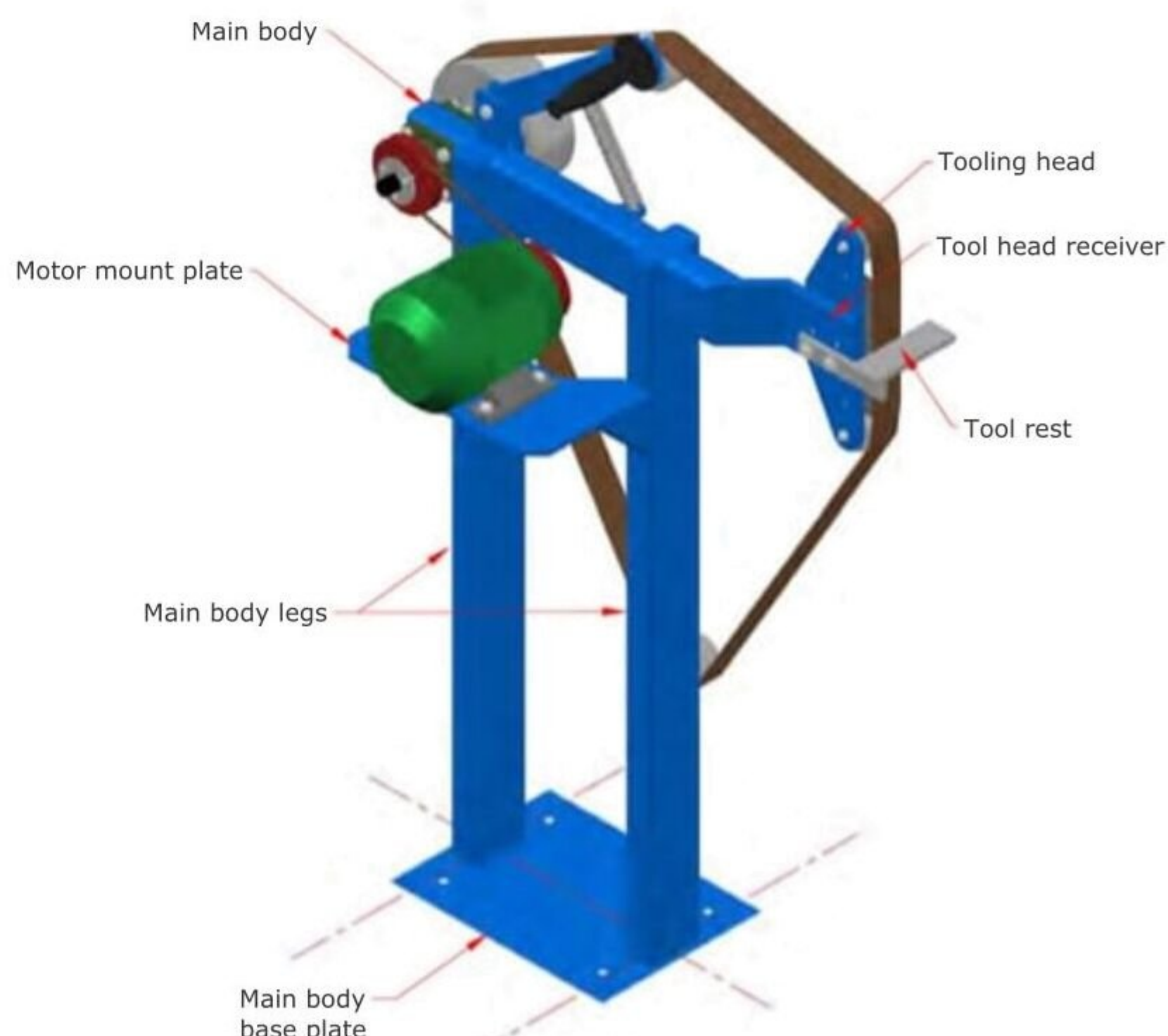
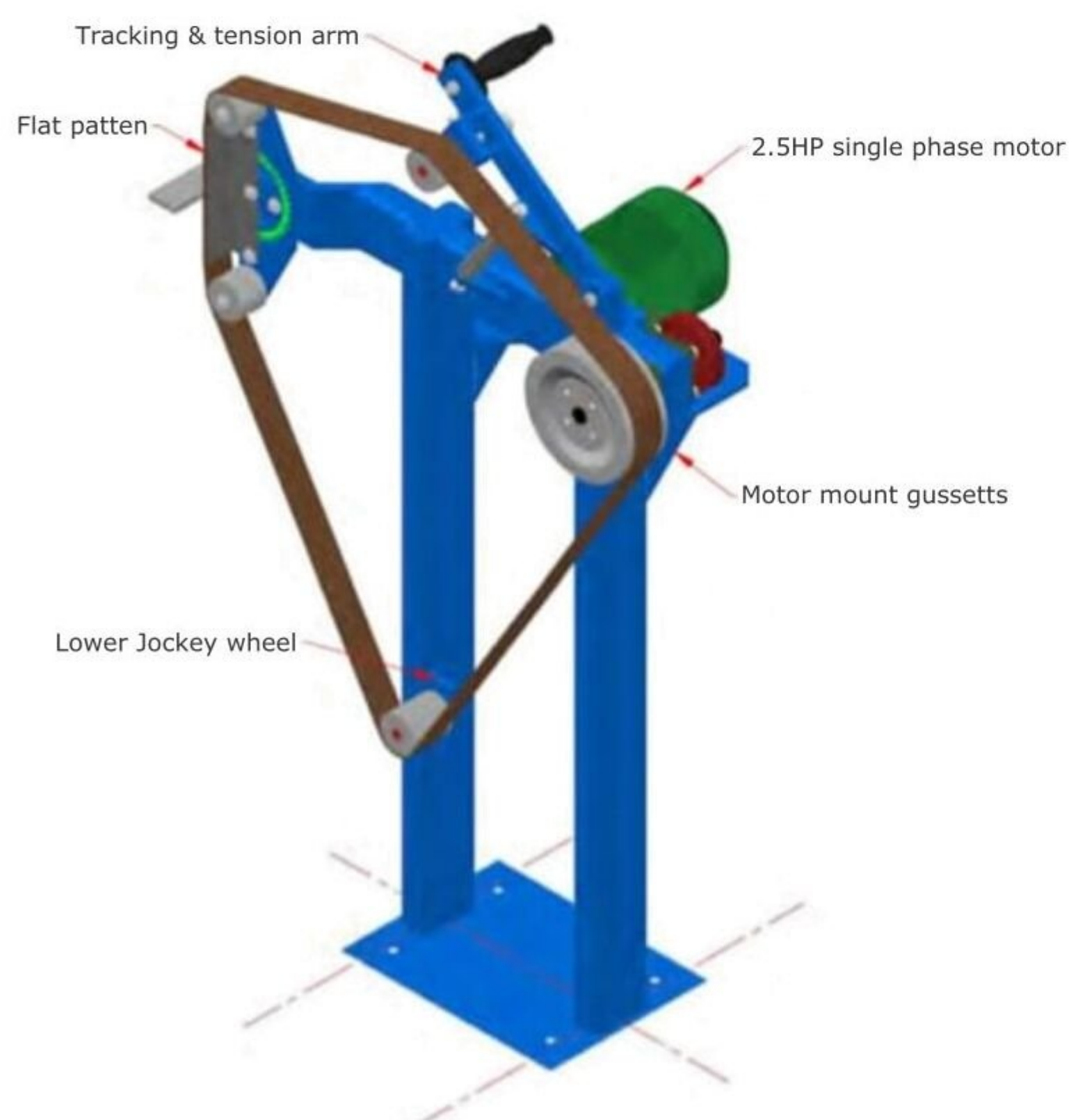
Speed

Belt speed is important because the coarser the grit, the faster I want it for heavy stock removal. With fine-finishing grits, I want it nice and slow to get good straight grinds. It also keeps the heat down after it's been heat treated.

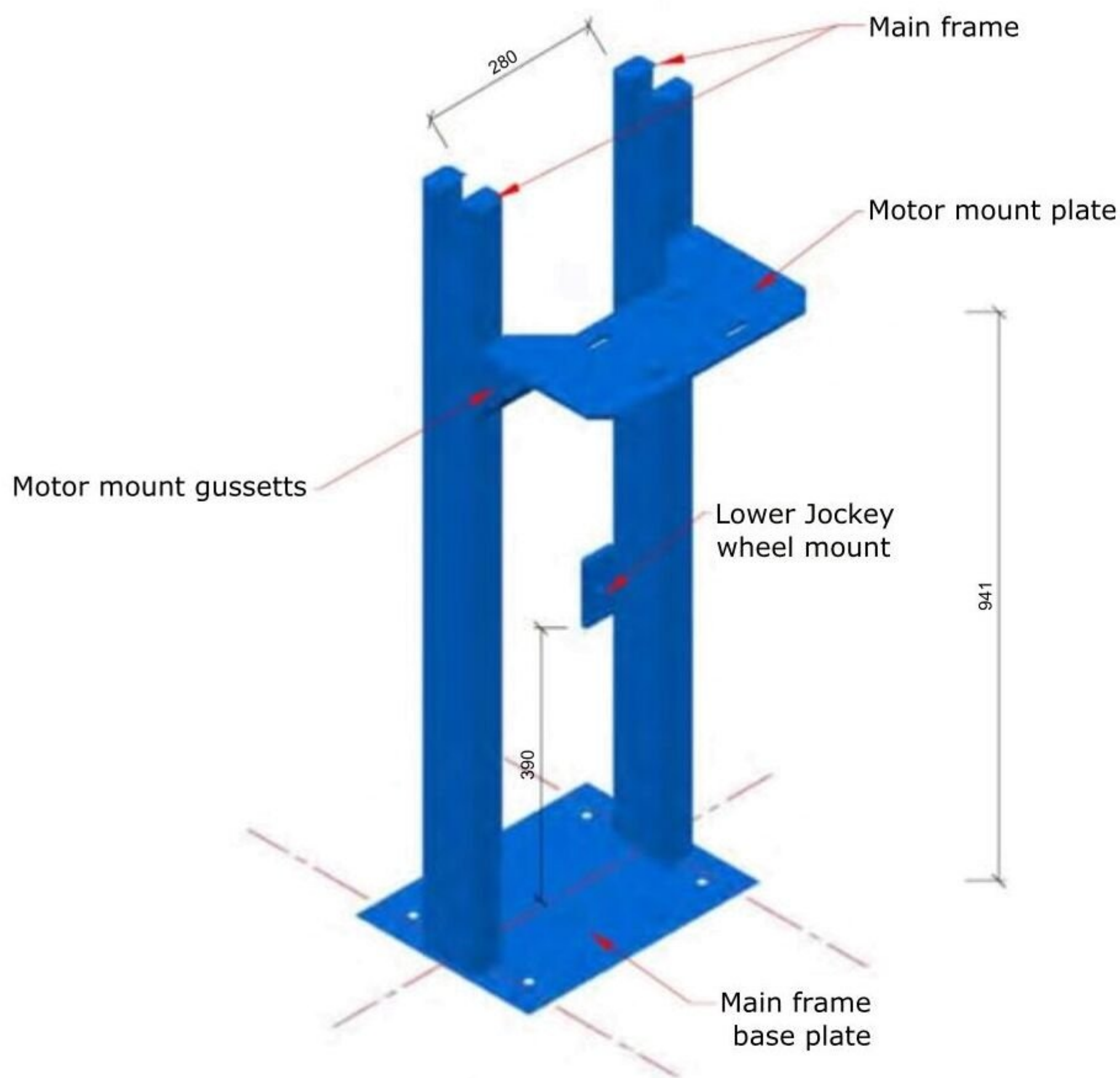
The main body is a piece of 100x50x4mm rectangular hollow section



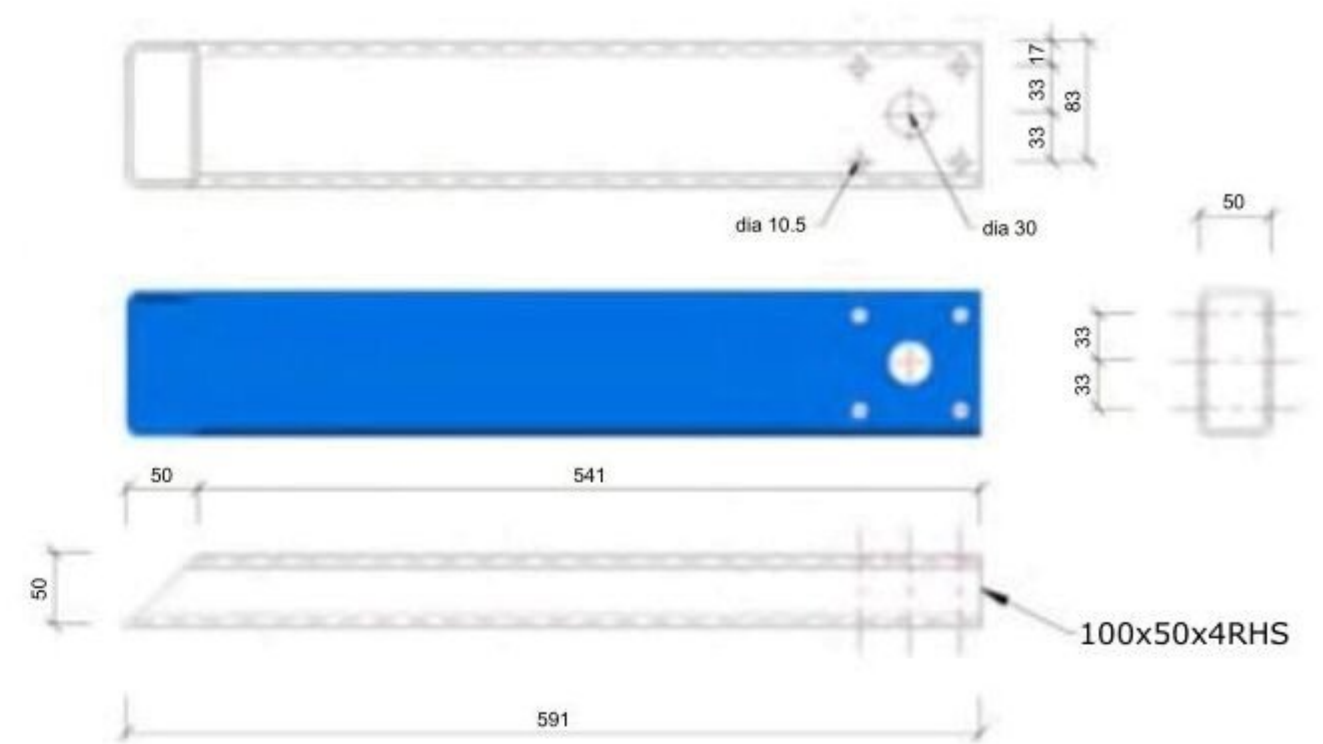
The bare start



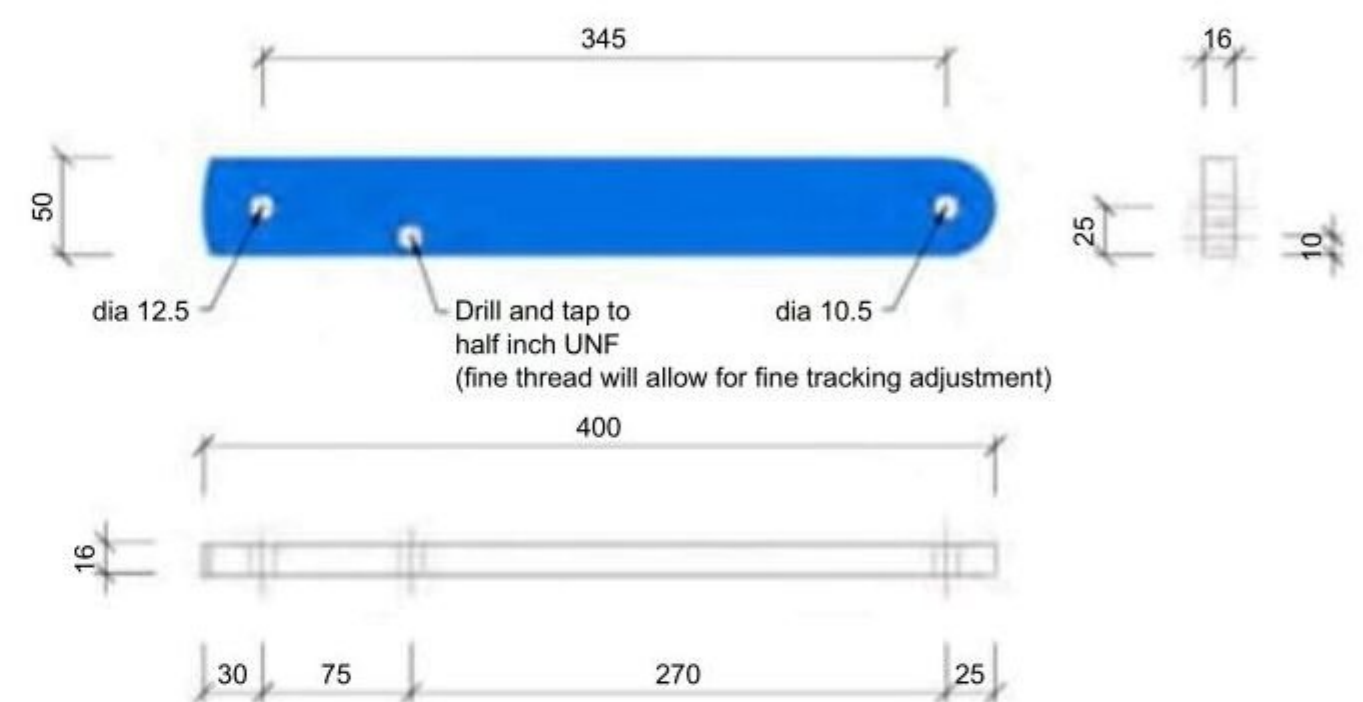
Main body



Main body



Tracking and tensioning arm



(RHS) with the end chopped off and drilled to take the flange-mount bearing blocks. The other end is a heavy 16mm plate, to which I can drill and tap threads to take the various tooling heads I want.

The motor shelf was welded to the side of the legs at a height that will keep the motor below the main body. This was so a cover could be made later to keep the dust off and to close in the spinning pulleys.

I tack-welded the machine body, two legs, motor shelf, and base plate together, and checked them for square. This is important, as throughout the build everything will be squared off the main frame. If it's not right, there will be problems tracking, and so on, so it's worth the effort to make sure it's perfect.

I welded a small 50x10mm bracket with three holes in it to the front leg for the lower jockey wheel. Why the

extra holes, you ask? It's because I've found that different manufacturers have different ideas on what a 50x2745mm belt is. So, if I get a batch of sandpaper belts that are longer or shorter than expected, the problem can be solved by simply moving the lower jockey up or down one hole.

Once the mainframe is fully welded, I clean it with a flapper disc on the five-inch (127mm) grinder. I like to clean as I go – it saves a boring task at the end. ►

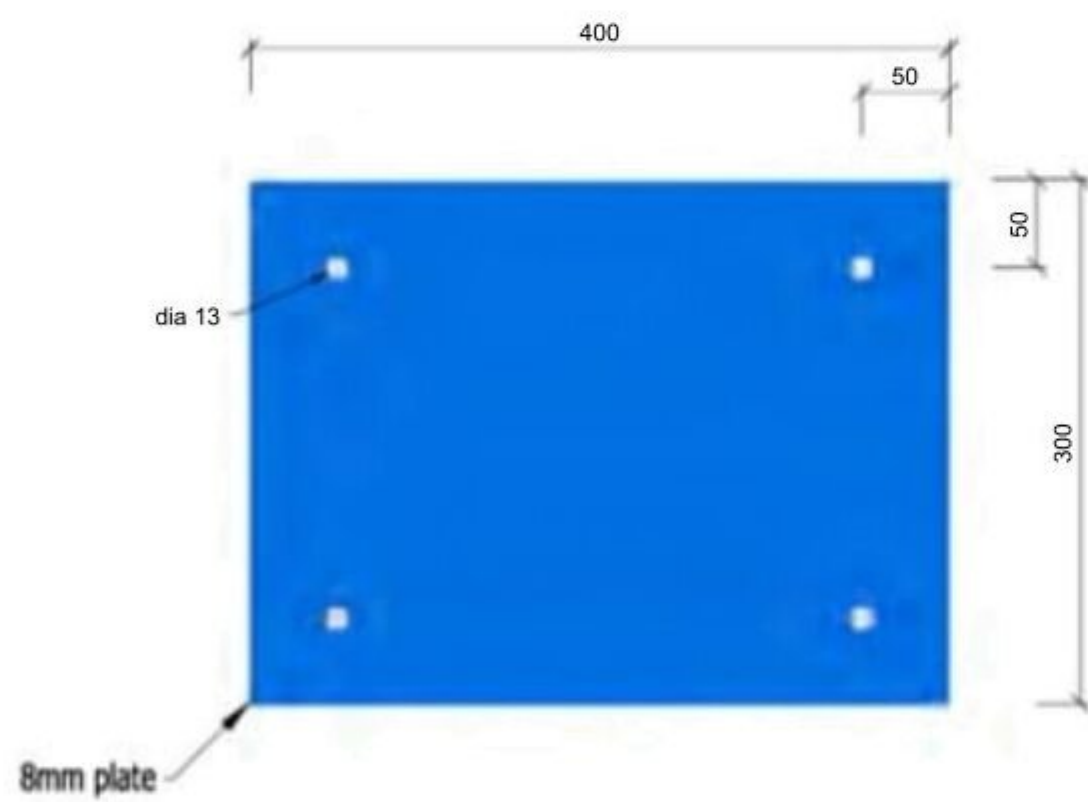


Leif cleans as he goes

Preparing tension arm pivot plates

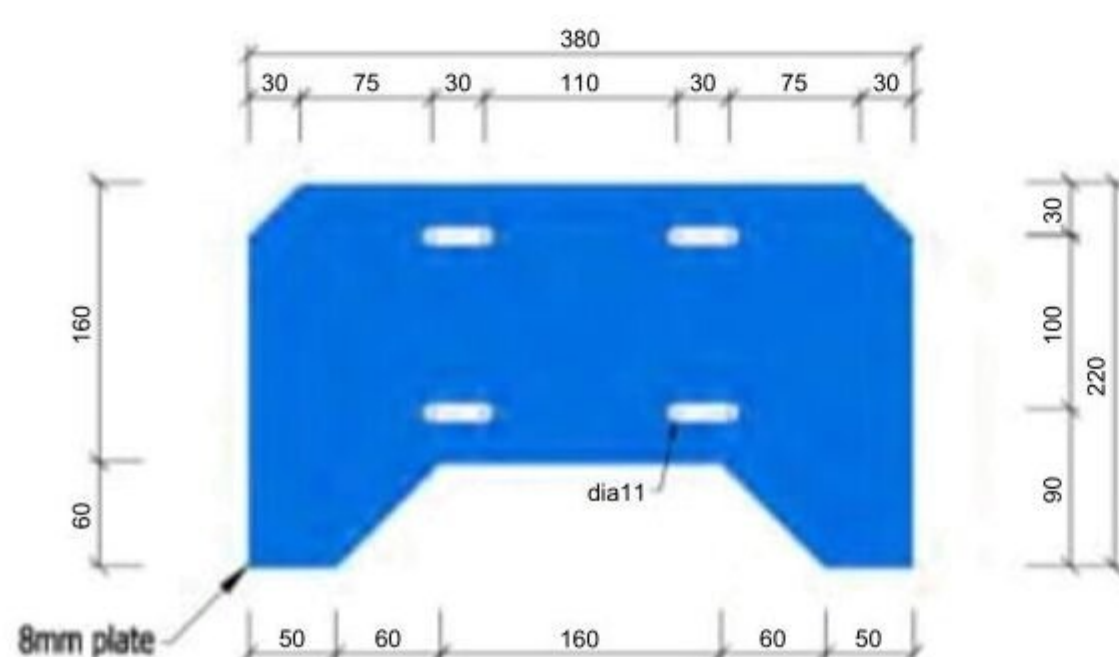


Main body base plate

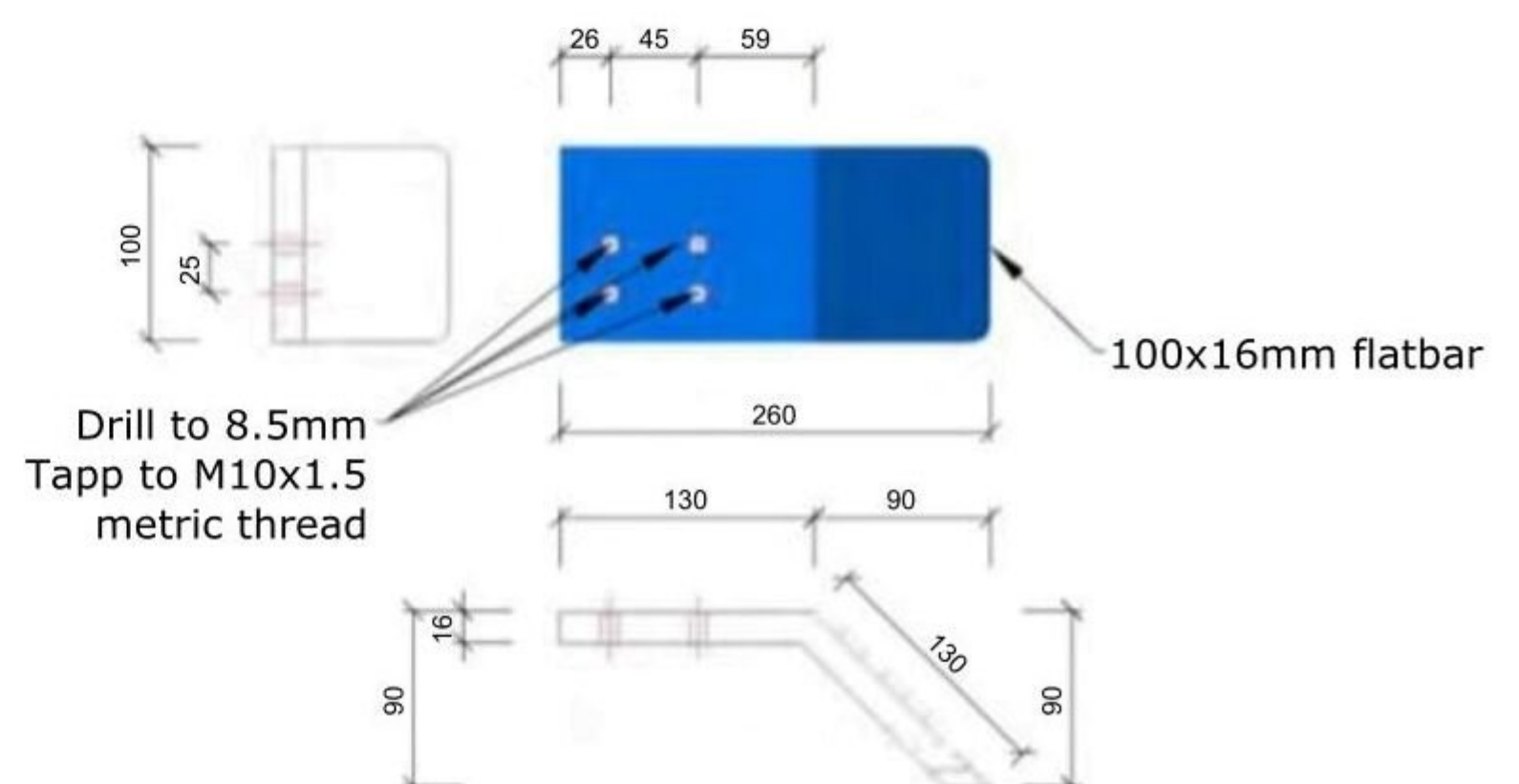


“If it’s not right, there will be problems tracking, and so on, so it’s worth the effort to make sure it’s perfect”

Motor mount base plate



Tool head receiver



Tracking/tensioning

I assembled the tracking/tensioning arm next. I chose 50x16mm flat bar, as it needs to be solid without flexing. If it does flex, it will throw off the tracking and will never track right. Even the slightest twist will do it, so it needs to be made strong.

I then attached the two side plates of 50x12mm and a central swinging plate of 75x16 mm flat steel to bolt the wheel to.

A bolt through the arm, when wound in, will push the swing plate out. In turn, this will push the outer edge of the tracking wheel up, moving the belt across when the bolt is wound out. The weight of the belt on the outer edge will bring it down, moving the belt the opposite way – tracking.

I used a half-inch UNF bolt, running a die over it to give me more thread. I also put a radius on the end so it didn't bind on the swing plate when it was turned. The fine thread gives a more precise tracking.



Welding the tension and tracking arm pivot plates

Spring

Two triangle brackets were cut from scraps and drilled with 19mm holes. These are for the spring to tension the belt. I'm using only a 12mm bolt but, as it pivots from a rear mount, the plates will not stay parallel to each other. They will in fact swing in an arc, so the bolt needs some sideways movement.

The rear pivot is simply two side plates with the arm bolted in between them and nipped up with a nyloc nut – not too

“If it does flex, it will throw off the tracking and will never track right”



Tension and tracking arm

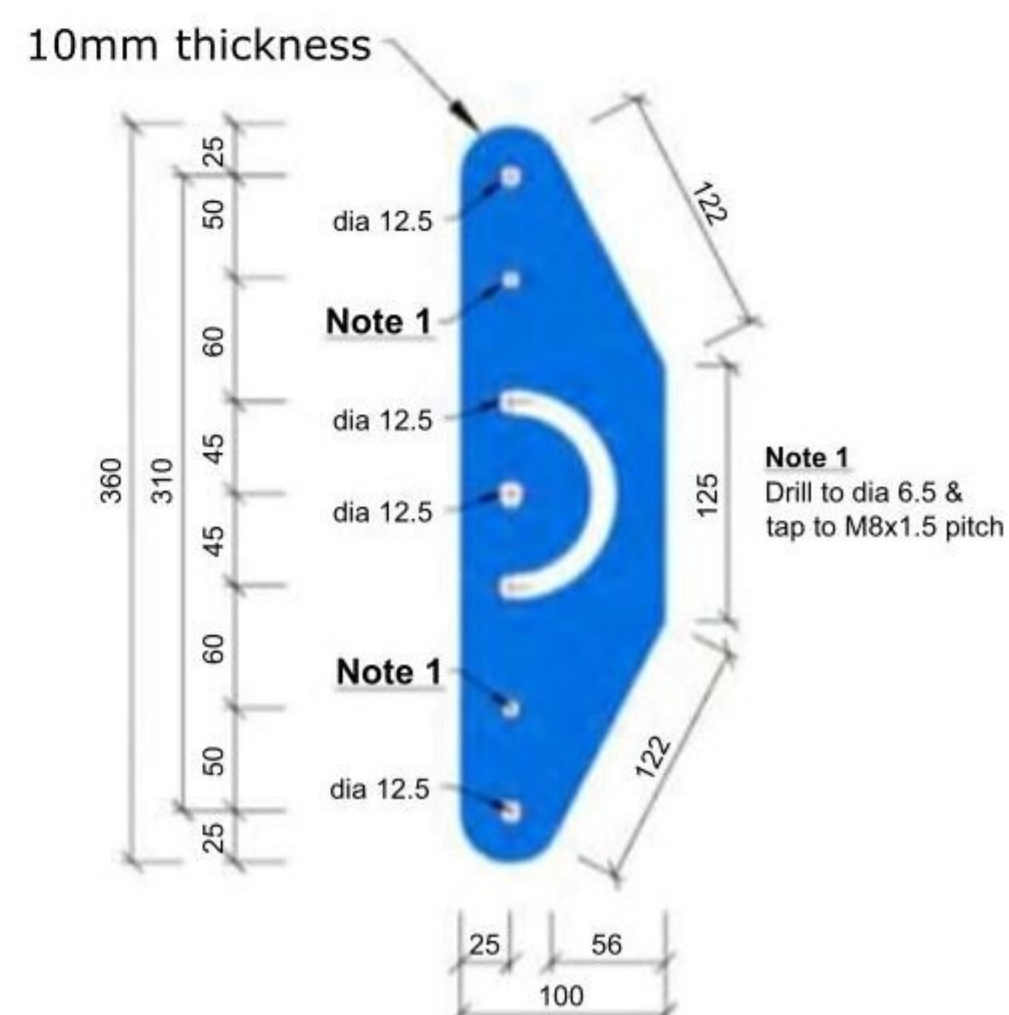


Bearing flange

tight, as it needs to move up and down freely but with no sideways movement.

All the pieces of the tracking arm were welded together. I clamped that main arm to the bench, as all the welding is done on one side and, if you don't clamp it, it will bow with the heat. Once it was welded, I cleaned it up and checked for straight. I checked the swing plate for a nice free swing. A swing plate that does not swing freely may need a swipe with a file here and there until it does.

Tooling head



Next, I attached the two rear pivot plates to the arm. While getting ready to mount that, I clamped a heavy plate to the main body (see photo). This step was to align the tracking arm to the main body so that the two 50x10mm pivot plates were welded in the correct spot. The clamped plate was temporary, holding the tracking arm to line up everything while it was being welded and ensuring it was flush to the main body – provided the mainframe had been made dead square. This is why that earlier step is so important.

Once it was square and lined up, I tacked it really well. I could weld it at this stage, but I waited until I was sure it would track right.

Time to test

With most of the mainframe done, it was time to mock it all together to test it. I mounted the two bearing flanges to the rear of the main body, which had been tapped earlier, and fitted the drive wheel.

I made the drive wheel from a 25mm shaft with a flange welded to it and



Squaring up mainframe wheel

then trued it up on the lathe. I then bored 200mm billet of aluminium up the centre to a snug press-fit on the shaft. The shaft was pressed in and bolted with 4x6mm coach bolts. Once assembled, it was held in the lathe by the shaft and trued up.

I've since discovered that NZ Safety Blackwoods has a good range of 'crown-faced pulleys' that would go straight on the shaft with a keyway. It could be lathed flat and save a bit of hassle. Blackwoods also sells the contact wheels

so would be worth a visit before you decide to make your own linisher.

I slipped the drive-wheel assembly into the bearing housings. As there is a degree of play in the housings, I squared the wheel of the mainframe before doing up the flange bolts. This play is another reason why it's so critical to get the mainframe dead square.

I locked the shaft into the bearings by way of grub screws. I didn't tighten them up until later when the belt was on, as that determines how far to slide it



Fixing shaft



Drive wheel



Leif prepares the tooling head



“I swapped it later for a crown-faced wheel, which gives more precise tracking”

through. The belt must be in the centre of it when it's tracking straight.

The next step was to assemble the flat platen tooling head by fitting the two wheels, which were made out of 75mm steel billet and trued up and bored to suit bearings. The platen itself is 50x50x3mm angle iron. This will be the backing behind the belt. I bolted it to the main body.

I then bolted the lower jockey wheel to the mainframe leg. This wheel was made from a 50mm billet, trued up and machined to suit the bearings. When it was bolted, I checked for square against the leg.

Tracking

It was time to assemble the tracking to the swing plate. The wheel used in the photo was just for a mock-up; I swapped it later for a crown-faced wheel, which gives more precise tracking. The swing

plate was bolted to the tracking arm. Finally, the half-inch bolt was screwed through the tracking arm so that it touched the swing plate and ta-da! We had tracking.

I took a handle from an old nine-inch grinder to be used when changing belts. It is pulled down and the belt simply slips off.

I now put a belt on for the rest of the mock-up and, using the handle, pushed it up tight against the belt and nipped up the rear pivot bolt on the tracking arm so it won't move down. This gives me a position to place and preload the spring assembly. They are a big belt so I need to give it a fair amount of preload. Once I was happy with it, I welded it there. The rear pivot bolt could be backed so the arm would be supported by the spring. Now that it was a spring-loaded, trackable belt, I gave it a few spins by hand to get it running true. ▶



Jockey wheel attached – note mounting plate holes for adjustment



Tensioner spring ...



... tack-welded



Welding plates for swing arm



Swing plate pivots



Bolt pushes swing plate out



Adjusting the bolt

**“It was
time for the
good stuff:
horsepower”
“It worked
better than I
had hoped”**

Motor

It was time for the good stuff: horsepower.

Mine is a 2.5hp motor but a 1hp would probably do the trick. I wouldn't go any lower, as it might get a bit frustrating on the hard grinds. I used a sheet of rubber under the motor to take out any little vibrations there might be. This may sound a bit pedantic but, when you are spending hours behind a machine, you want it to be as smooth as possible.

The motor was bolted through the slotted holes in the base. I didn't think it needed any mechanical device to tighten the belt; I just pushed it firmly by hand and tightened the bolts. The belt is not your normal belt – it's called a PowerTwist belt and is made with lots of

links, so any size can be achieved. This belt takes out more vibrations and is quite expensive but I think it's worth it.

I now donned the safety gear and got ready for the maiden voyage. It helps to get it on track by being ready on the tracking knob. I did some test-grinding on an old blade to see how the machine behaved under load etc.

It worked better than I had hoped, so it was time to strip it down and clean all the welding splatter off. There shouldn't be much as I did that cleaning through the build. I gave it all a wash-down with Prepsol wax and grease remover and sprayed that fantastic hammer-coat blue all over it.

Final assembly

Assembly is always the best part: to see your hard work come alive into something useful that you otherwise couldn't afford. There is something very satisfying about using a tool you made yourself – I think it's a bloke thing.

After the photo shoot, added refinements were a switch, a work light, a safety shield, and a crowned tracking wheel. A sparky mate checked the electrics.

Some may say that the choice of materials was a bit heavy. However, I hate fixing broken tools and I have used this machine on a very regular basis for some long spells (most of the day). On occasion, I have given it a really hard time and have had not one ounce of trouble with it. It is the most used tool in the shed at the moment.

Happy grinding. 🛠️



The 2.5hp motor sits on rubber mat before being bolted to mount plate

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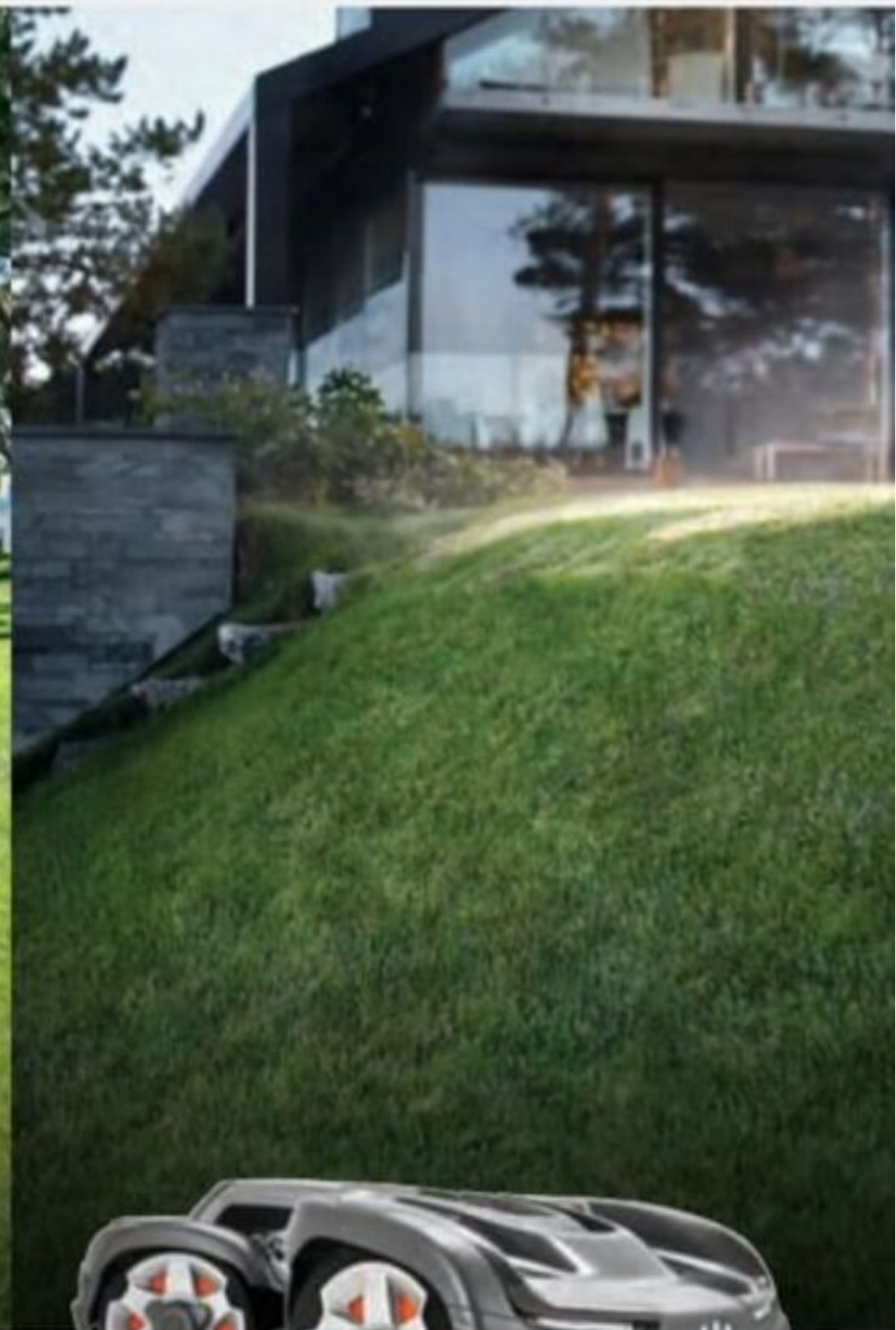
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Motorfest is back for 2024

The Stratford Park Motorsports Complex is revving their engines as they prepare for the 2024 AutoCity MotorFest.

Scheduled for 20 April from 11am – 4pm, MotorFest is all things automotive. From an extensive display of cars, bikes and trucks from clubs and individuals Taranaki wide, to live entertainment. Add to that the extensive kids zone with loads of activities to keep the young ones amused, to live demonstrations and an array of stalls and food carts; MotorFest will be sure to get your engines humming.

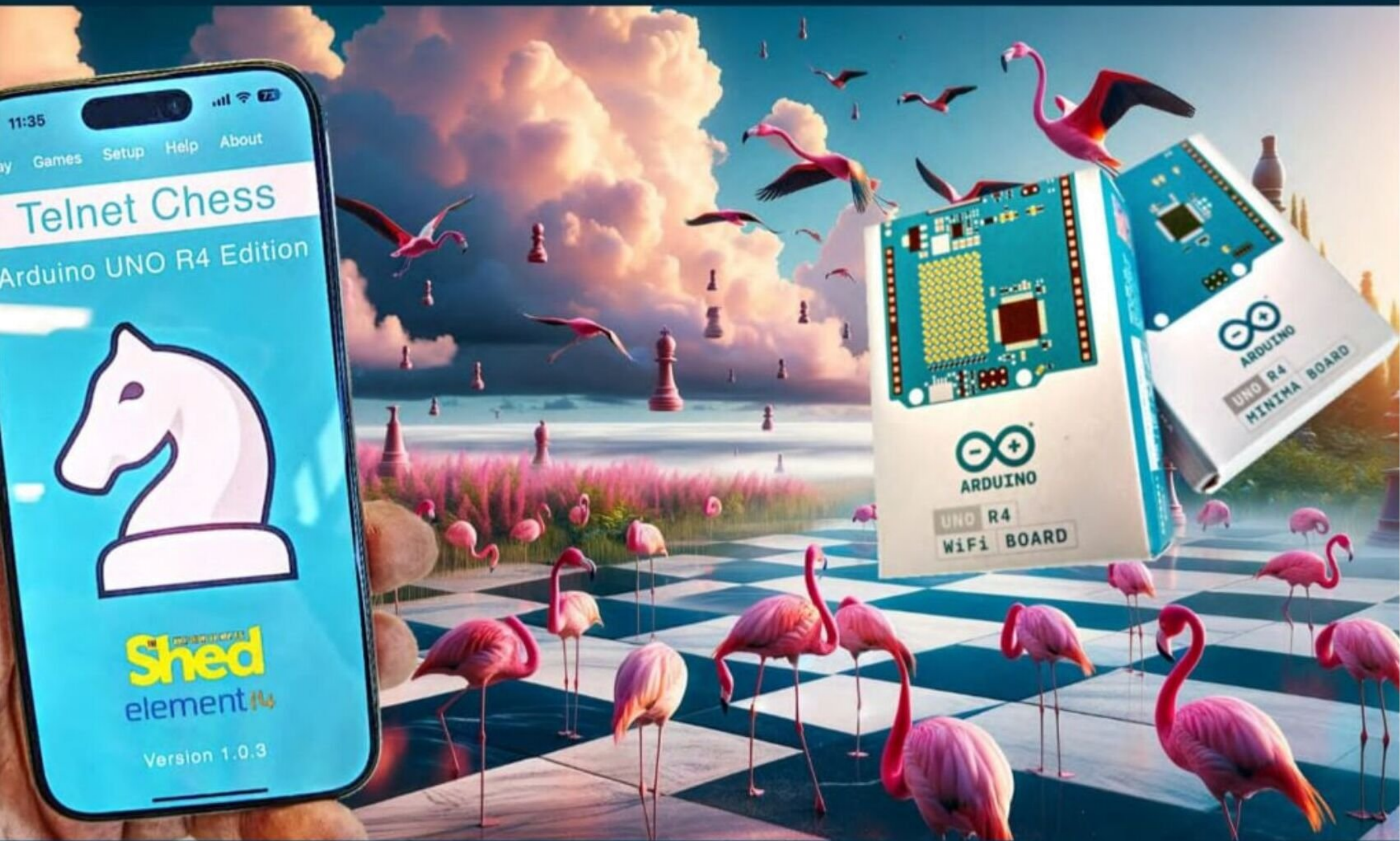
For the car enthusiasts, there's a swap meet where you can bring a trailer load to sell for only \$20. Clubs and individuals can participate by simply heading to eventbrite.co.nz and searching for MotorFest to register, or you can head to the Stratford Park Motorsports Complex on Facebook for more info.

Entry is just \$5 for adults and children 14 and under are free.

www.stratfordpark.co.nz or 027 305 6467

In this series of articles, we will explore how the power of the new Arduino UNO R4 models can be used to run a chess engine based on Microchess.

Part 3 will be dedicated to the Arduino chess game interface, to play with the Arduino chess engine using the Telnet protocol; and more, a full working Telnet chess client for iPhone, branded 'The Shed' and available free on the App Store by the end of January 2024



INTRODUCTION TO ARDUINO UNO R4 (PLAYING CHESS) — PART 1

Arduino has produced an update to its popular UNO R3 board. In this series our writers show how UNO R4 can be used to run a chess engine

*By Enrico Miglino and Luis Garcia
Photographs: Enrico Miglino*

For Arduino, 2023 was a very notable year.

After several agreements and partnerships with industrial brands such as Bosch for the Arduino Nicla, the Arduino platforms are expanding, moving from being a popular board for hobbyists and makers to entering the world of industrial applications based on embedded devices.

The ‘classic’ version of Arduino UNO R3, based on the AVR 328p, survives, and probably will for many years. However, the most recent Arduino boards implement powerful Arm-based microcontrollers oriented to IoT and embedded machine learning (ML) applications.

In this issue of *The Shed*, I will introduce an Arduino platform that can boost the makers’ creativity. Arduino UNO R4 does not replace previous versions but completes the coverage of the wide range of Arduino scenarios.

The experiments presented in these

three articles have been developed with the maker, my friend and colleague, Luis Garcia, who worked on the Minima model of the Arduino UNO R4. At the same time, I played on the standard Arduino UNO R4 WiFi model.

Of course, we enjoyed experimenting with both boards; thanks should go to Element14.com and Tariq Ahmad, who provided us with the hardware.

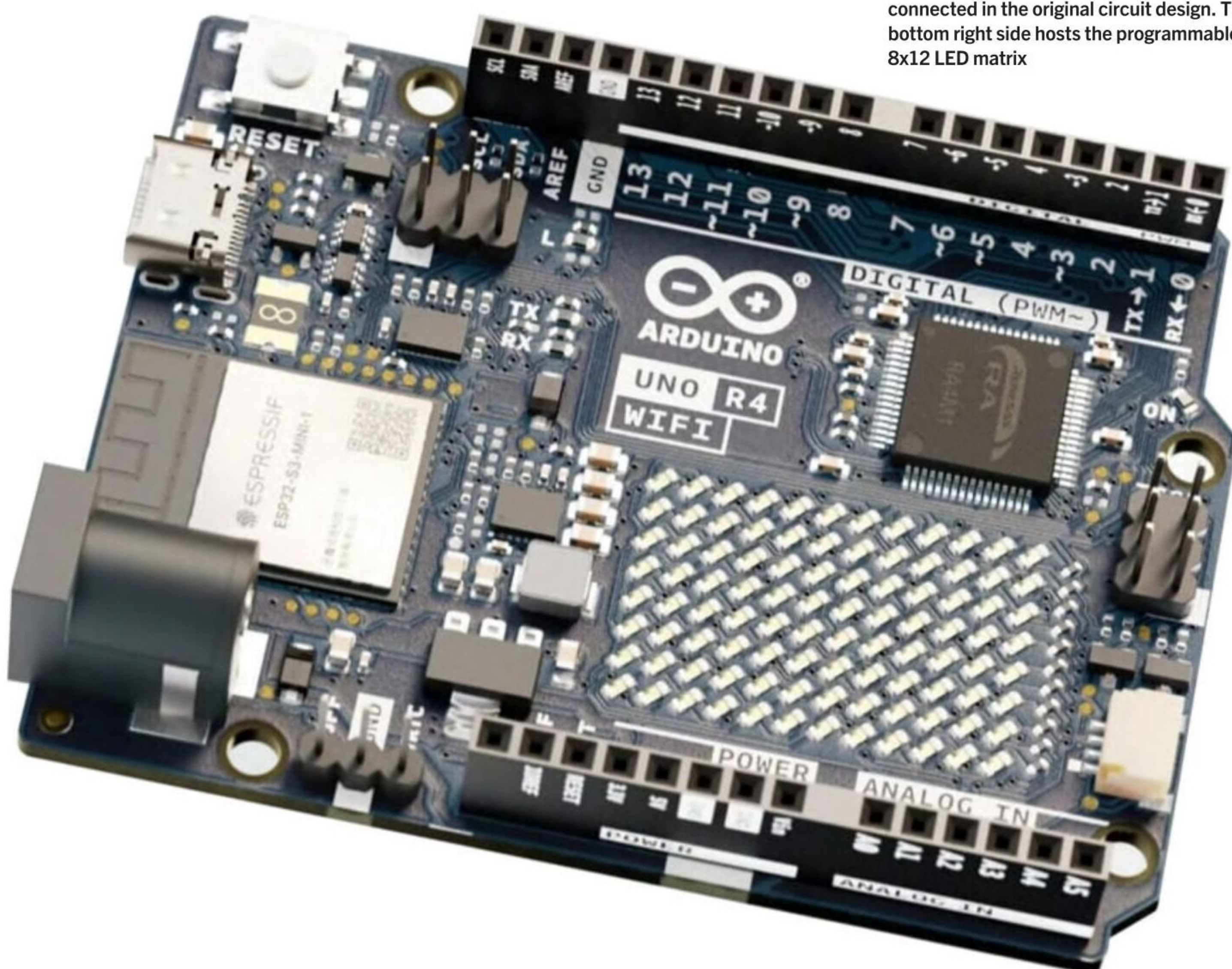
Technical notes

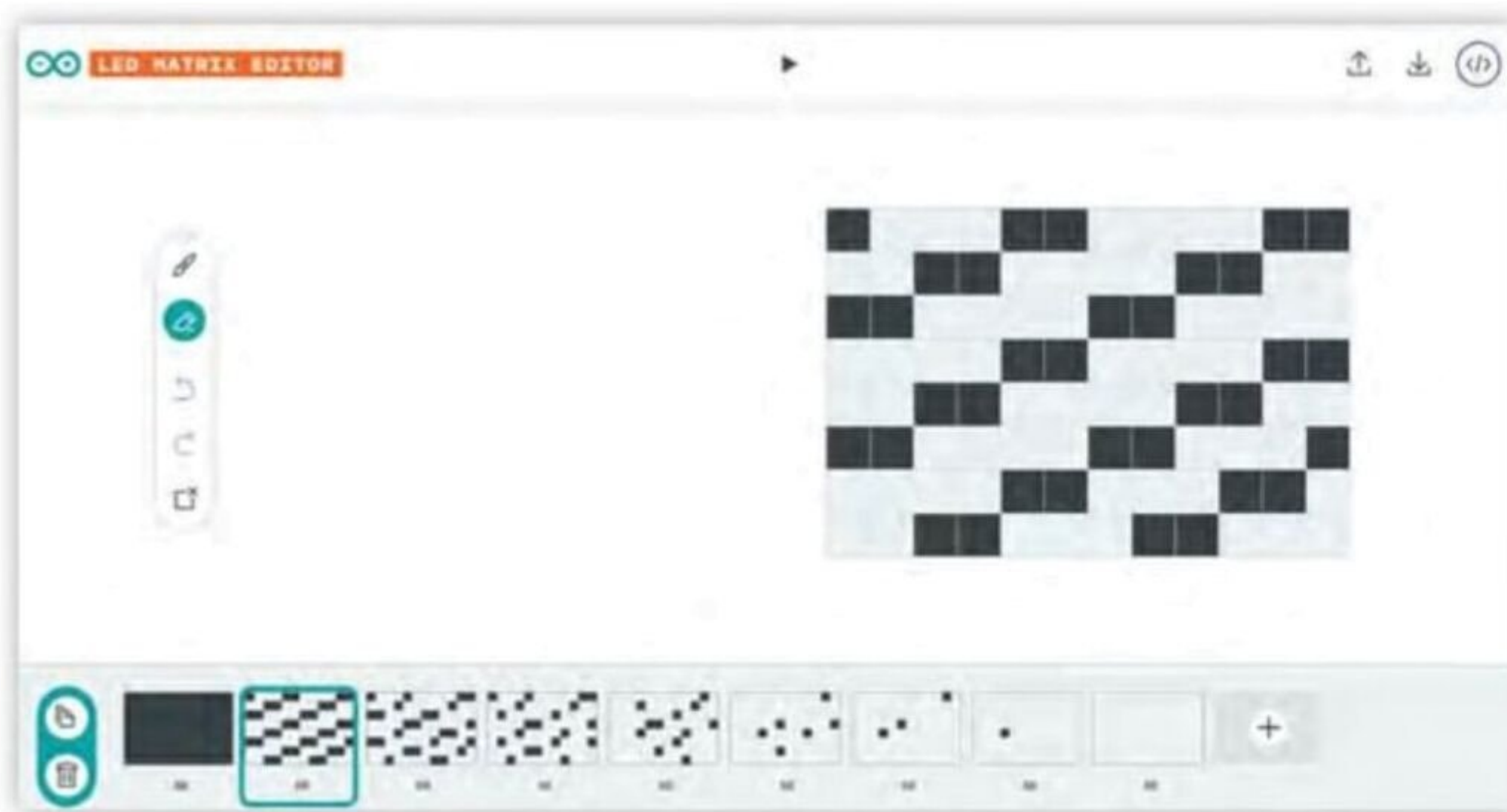
Arduino UNO R4 hosts a powerful 32-bit ARM MCU (microcontroller unit) and – on the advanced WiFi model – an ESP32-S on the same board; these two microcontrollers can work together in different configurations. Depending on the user’s needs, the board is available in two different ‘flavours’ (and prices). The advanced version of the board includes an LED matrix that can be programmed to show short messages and icons. Both boards have the same form factor as the Arduino UNO R3. ▶

“The Arduino platforms are expanding, moving from being a popular board for hobbyists and makers to entering the world of industrial applications”

Top view of the Arduino UNO R4 WiFi. This is the more advanced model, and includes an ESP32-S3 extra processor, used by default to provide advanced WiFi capabilities.

Of course, modifying the firmware provided with the board and working with the two independent processors is not difficult. This feature will expand the range of applications because both microcontrollers are already connected in the original circuit design. The bottom right side hosts the programmable 8x12 LED matrix





The LED matrix editor is a very interesting utility. It can also be run locally, saving the web page. With this web tool, it is possible to create icons to show on the LED matrix, as well as simple animations. The designed project can be saved locally, and the definition of the status of the LEDs for every frame is saved in a structure that can be used directly in the Arduino sketch

We worked around a project implemented in a slightly different way on the two boards to answer the question: do we finally have an Arduino UNO to play chess appreciably?

Arduino UNO R4 WiFi technical specifications

- Microcontroller Renesas RA4M1 (Arm® Cortex®-M4) 48 MHz
- ESP32-S3 secondary core up to 240 MHz
- RA4M1 (main memory): 256 kB Flash, 32 kB RAM
- ESP32-S3 memory: 384 kB ROM, 512 kB SRAM
- USB: USB C power and programming port
- 14 digital I/O pins
- 6 analog inputs
- 1 DAC
- 6 PWM pins
- UART, I2C, SPI, CAN bus
- Voltage: 5 Vcc, ESP-32 S3 3.3Vcc
- Input voltage (from the power supply): 6-24V

(Arm® Cortex®-M4) 48 MHz

- RA4M1 (main memory): 256 kB Flash, 32 kB RAM
- USB: USB C power and programming port
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- 6 analog inputs
- 1 DAC
- 6 PWM pins
- UART, I2C, SPI, CAN bus
- Voltage: 5 Vcc, ESP32-S3 3.3Vcc
- Input voltage (from the power supply): 6-24V

Testing the power of the MCU

We worked around a project implemented in a slightly different way on the two boards to answer the question: do we finally have an Arduino UNO to play chess appreciably?

Spoiler: the answer is yes.

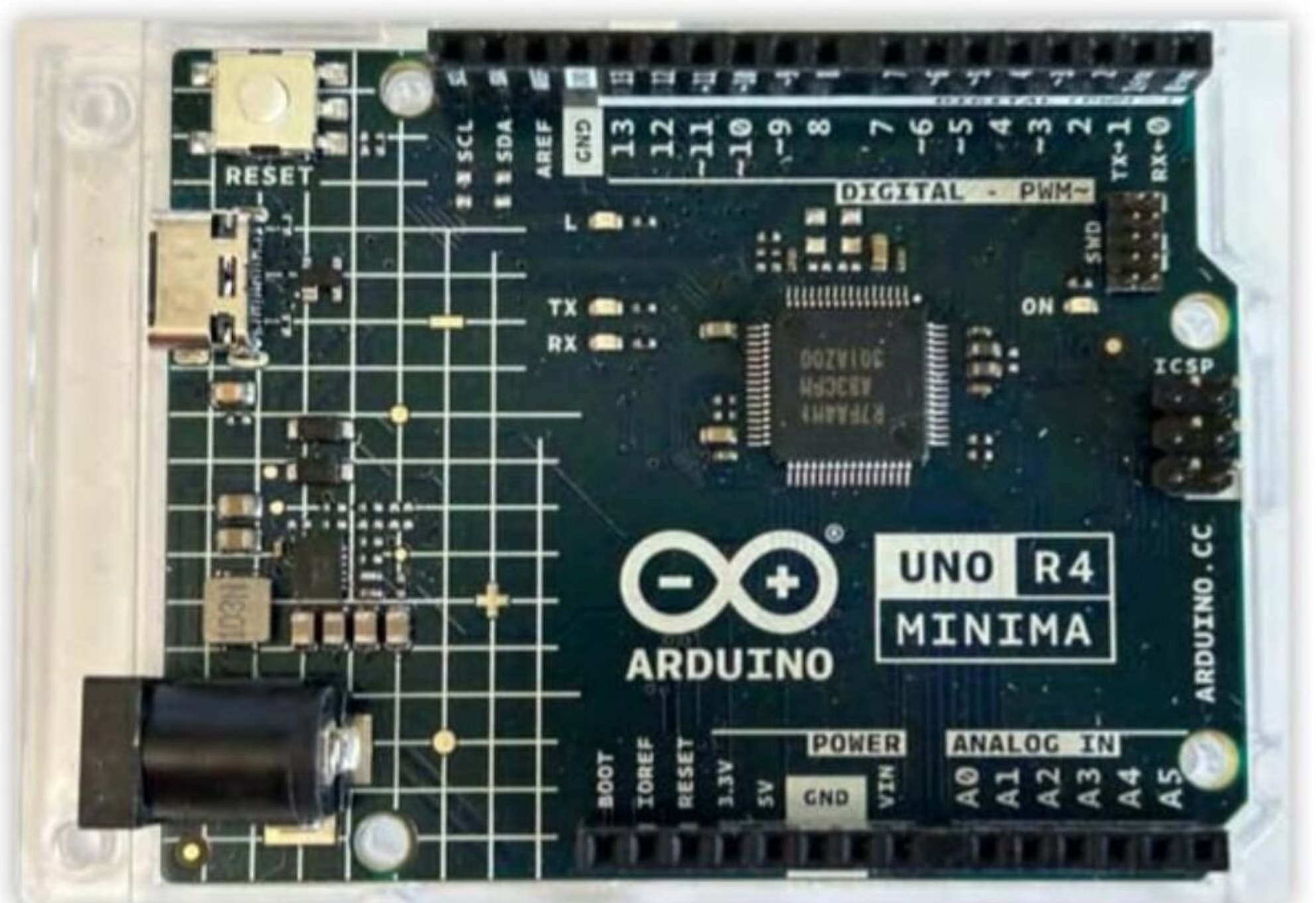
The software architecture design and the features to include in the chess game required us to make some decisions.

Arduino UNO R4 Minima technical specifications

- Microcontroller Renesas RA4M1

The top view of the Arduino UNO R4 Minima, as well as the more advanced WiFi model, which keeps the same form factor and GPIO pin distribution as the classic Arduino. This makes it possible to reuse many shields originally designed for the Arduino UNO R3.

The powerful microcontroller has the same characteristics in both models, while the Minima is not equipped with the LED matrix and the ESP32-S3. As we will see in the next instalment, Luis, the co-author of this series, is working on interfacing the Minima board with an external ESP32-S3





A detail of the ARM microcontroller – the core of the two Arduino models – including a DAC channel for audio conversion

“The evolution of computer-based algorithms (computer chess engines) required a formal model easily managed by computer systems”

“It has been necessary to limit the role of the microcontroller to two main tasks”

The chess game approach

To optimise the performance of the system, it has been necessary to limit the role of the microcontroller to two main tasks:

- Send and receive the moves.
- Play a complete chess game.

Regardless of the adopted communication (Bluetooth, USB serial, or WiFi), a notation to represent the game moves is required.

In chess, every move should be represented in a single line of text so that every move describes the ‘from’ and ‘to’ position of the moved piece.

A standardised chess moves notation appeared for the first time in 1737 in the book *Essay on the Game Of Chess* by Philipp Stamma.

The representation of every tile on the board uses a system of coordinates; every row is numbered from one to eight, with the first row corresponding to the first left white rook, and every column has the letters from ‘a’ to ‘h’ from left to right – the bottom is the first row of the white pieces.

According to this board representation, several move notations have been developed in the following decades. The evolution of computer-based algorithms (computer chess engines) required a formal model easily managed by computer systems and understandable by human players.

PGN (portable game notation)

In this notation, the moves are represented in the format

{piece name}{coordinates from}
{piece name}{coordinates to}

Example: (Ruy Lopez opening)

- e4 e5
- Nf3 Nc6
- Bb5 Ba6

For every move, this notation includes all the information. In addition, every recorded PGN game can include a header with some descriptive metadata; if not used, these fields should be empty.

[Event “Event name”]
[Site “Place of the game”]
[Date “yyyy.mm.dd”]
[Round “Number of moves”]
[White “Player name”]
[Black “Black name”]
[Result “Game result”]

FEN (Forsyth-Edward Notation)

This system, developed by newspaper journalist David Forsyth, also represents the game moves but has some limitations, for example, it is impossible to recognise a draw offer from the opponent.

More details on this notation format can be found on Wikipedia (https://en.wikipedia.org/wiki/Chess_notation).

There are also other notations specific to certain kinds of data exchange – such as the notation for telegraph and radio chess, to mention one of the most diffused. ►



A detail of the Arduino UNO R4 Wifi – the most advanced model – showing the ESP32-S3 soldered on the board

“As the chess engine checks the human moves”

The adopted notation

For the Arduino chess game, we assume that the position of the initial pieces on the chessboard is correct.

As the chess engine checks the human moves, it is possible to adopt a simplified PGN notation using only the board coordinates to represent every move.

Arduino UNO R4 communication

The easiest way to interact with the chess engine is through the USB serial interface, but there are some limitations:

1. The user must run a serial TTY terminal, or at least use the serial interface provided by the Arduino IDE.
2. This communication method, ideal for debugging, does not use the potential of the ESP32-S part of the Arduino UNO R4 board.

3. Using the USB serial communication, the board must be connected to another device, e.g. a laptop running the TTY terminal.

For these reasons, we opted for a more efficient WiFi connection. As the moves represented in PGN notation use only ASCII text characters, it is not too complex to set up a protocol to interface the chess engine with a human opponent through a Telnet terminal.

The standard PGN notation includes the name of the moved pieces to identify every move univocally. While the sole board coordinates are sufficient to describe an entire game (a list of positions) and to store the moves, the full PNG notation should be represented.

The software architecture

The Arduino UNO R4 program has been split into three parts:

1. The Chess Engine, including the moves validation
2. The WiFi communication
3. The Telnet protocol, including the entire chessboard representation in ASCII format.

The Microchess engine

The chess engine has been ported by a version of the original Microchess and kept isolated from the rest of the architecture.

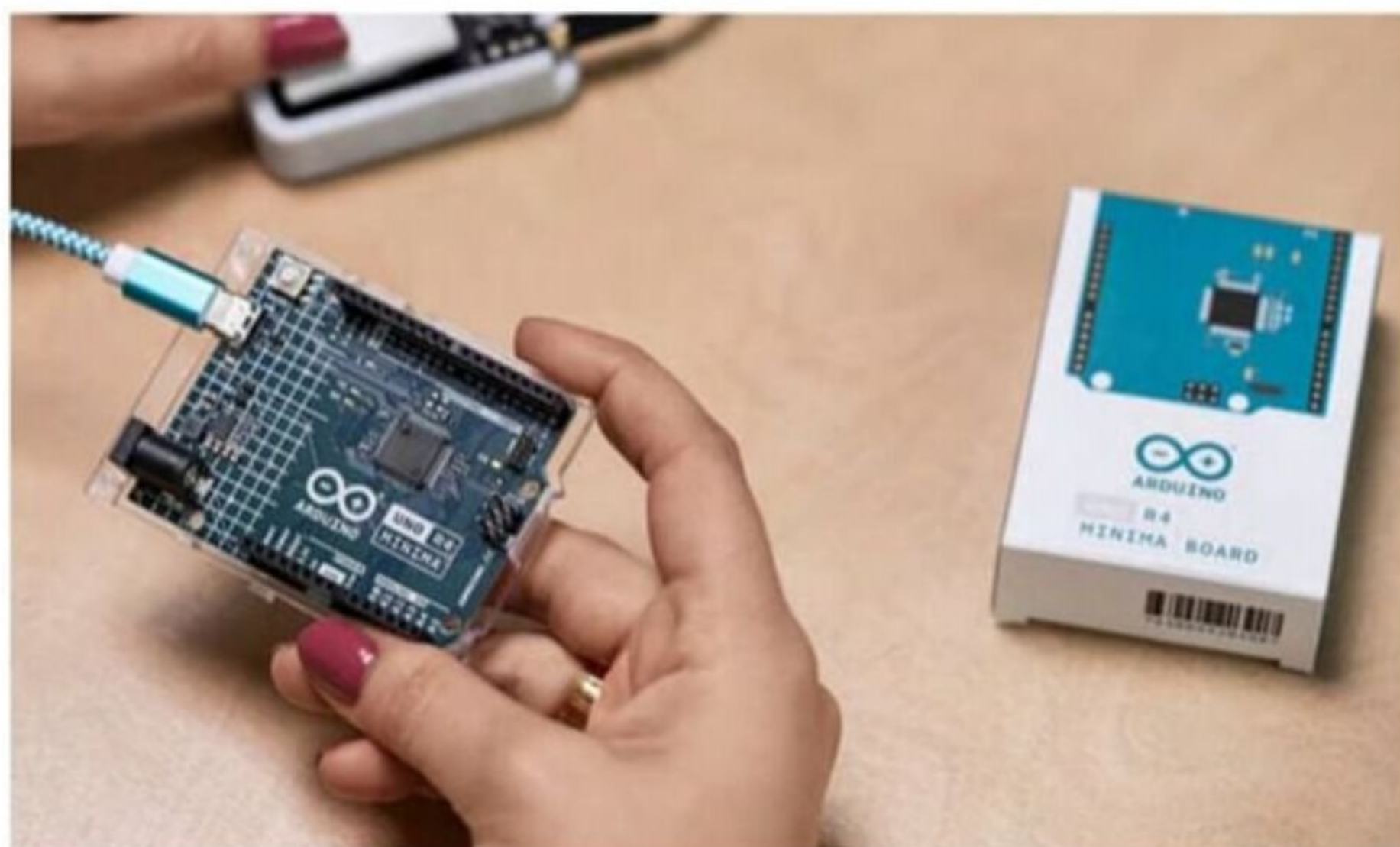
Peter Jennings published Microchess in December 1976. The author originally developed this incredibly optimised chess engine for the Rockwell 6502, an 8-bit microprocessor that was the core of the first small personal computers, like the KIM-1 and the AIM65.

It was a full chess program in 924 bytes of 6502 code! You can find more on the story of this program and how its porting survived until these days on the site of the author: <https://www.benlo.com/microchess/index.html>

The full software

The most updated version of the software – some parts are still a work in progress – is available on the GitHub repository <https://github.com/alicemirror/Arduino-Telnet-Chess>.

In the next two issues of *The Shed*, we will explore in detail how the Arduino UNO R4 chess program works and how it can be interfaced with a smartphone. 📱



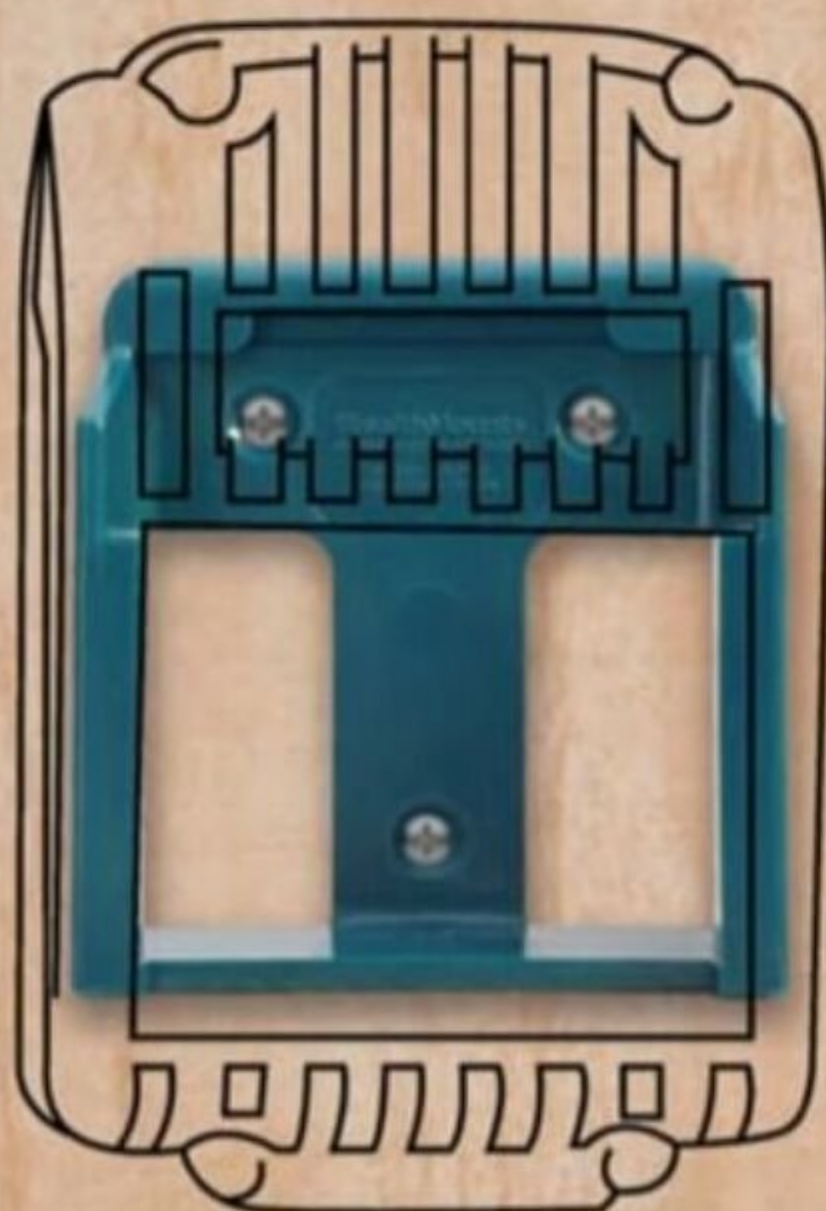
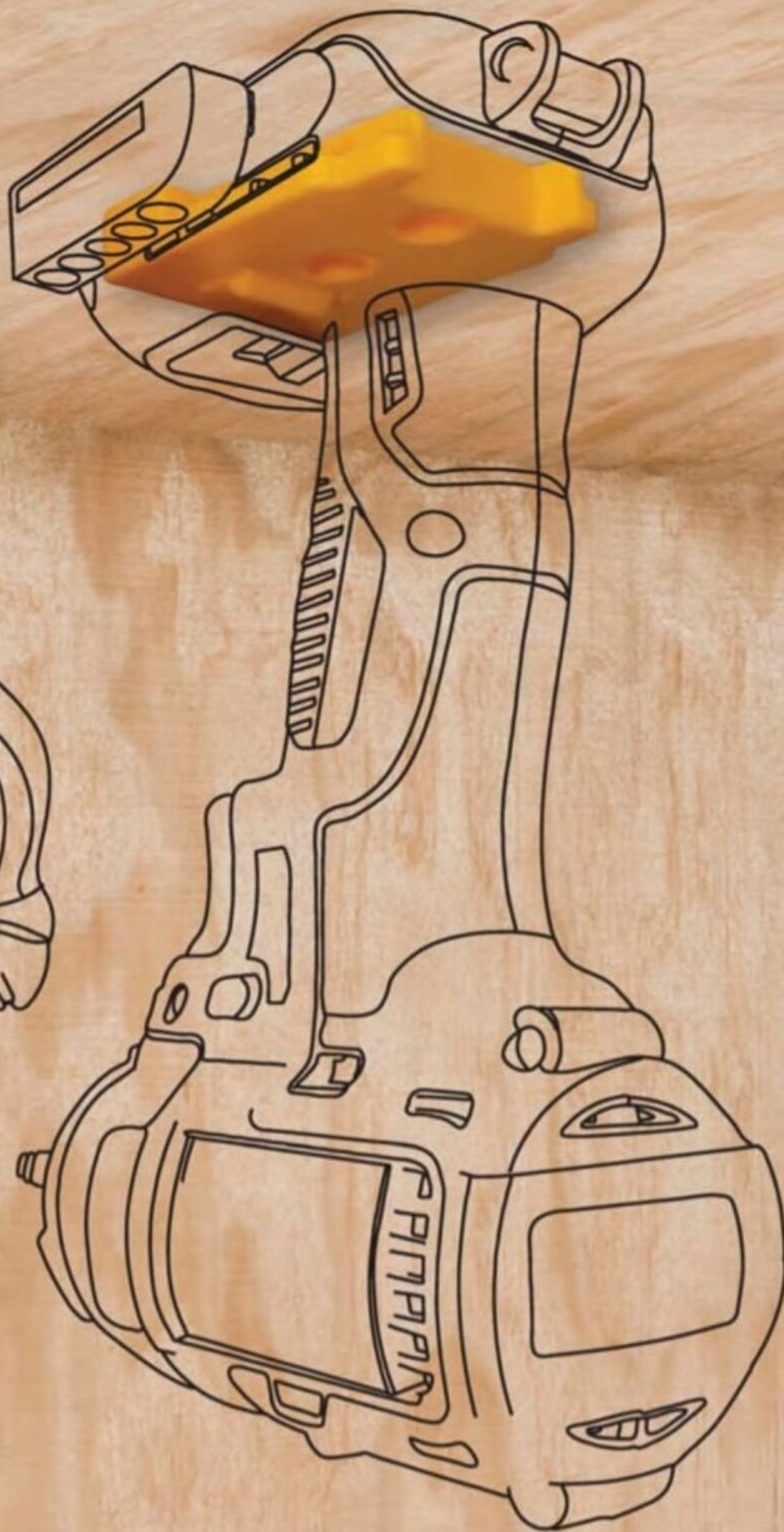
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ELEANOR'S JOURNEY

THE GREAT RELOCATION (PART 1)

To relocate or to build from scratch, that is the question – and a plethora of variables may influence the answer

By Andrew Broxholme
Photographs: Andrew Broxholme

So, you are thinking of relocating a house to your property; or, you want to build but, having seen those house-relocation shows, you're thinking it might be a good idea just to move an existing house – perhaps to get a house for less, or because it might be quicker than building from scratch? Well, keep reading.

My wife and I moved the lovely old

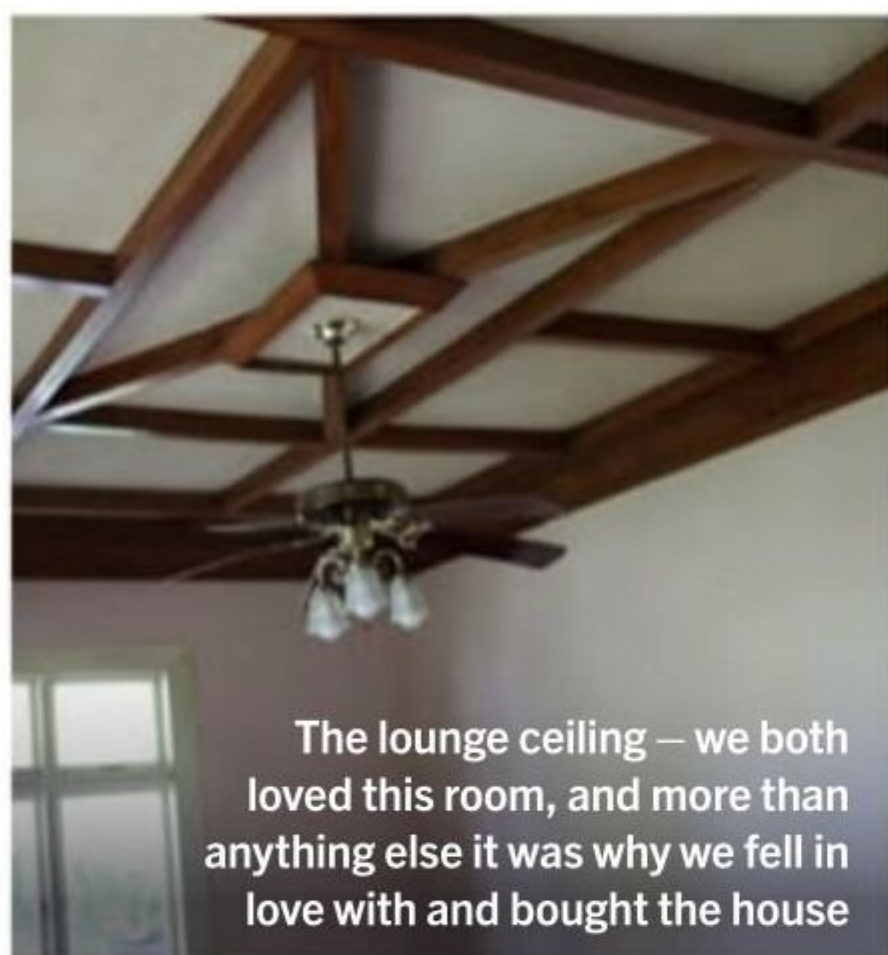
house you see pictured here to our land last year, but it turned out to be way more stressful and much more expensive than expected; it also dragged on for more than nine months. After the relocation, we talked to others who had done the same. Pretty much everyone said they would never do it again. Would we? Well, that depends – if you keep reading, you'll find out why.

As is usually the case, it's the unknown unknowns (thanks, Donald Rumsfeld) that catch us out and can be the source of the biggest challenges. Had we had more time to do our research, perhaps the exercise would have cost a little less, or perhaps we would have had fewer problems. Then again, if we had bought and moved a different house, it likely would have had challenges unique to that situation.

The house – still in one piece but lifted so the transport trailers could get underneath



Eleanor as bought – there is no actual living space behind the half round upstairs window



The lounge ceiling – we both loved this room, and more than anything else it was why we fell in love with and bought the house

A house named Eleanor

The decision to name the house was my idea, but my wife came up with the name. Eleanor is what they call a transitional villa; she was built as a family home on a farm near Whakatane – as best we can tell, between 1900 and 1920. She has the internal ceiling height of a villa but more modern casement windows. She also has a somewhat unique roofline and lacks the fancy external detail of Victorian villas. At 150 square metres, she is also larger

than most homes of that era.

When built, Eleanor had three fireplaces – a sign that the original owners were not poor. While she looks careworn, the rimu and kauri structure is in very good shape, with all its original doors and door hardware, although the window hardware is a mixture of modern and some reproduction fittings. The aim will be, where possible, to restore her using period-appropriate hardware while still having a home suited to modern living. ►

“She was built as a family home on a farm near Whakatane – as best we can tell, between 1900 and 1920”

Our reproduction cottage





Along with the house, we bought and dismantled what was apparently the original cook's quarters. Although it looks very shabby, it was far from easy to take apart

Old is good

My wife and I love old stuff, so much so that when we built the little 65-square-metre cottage on our rural property we made it look old, with high ceilings, taller windows, timber floor, and classic detail, including a wraparound verandah.

The original idea was to replicate the cottage on a bigger scale for the main house, but post Covid it became obvious that this would simply cost too much. Then an ad for this farmhouse popped up on Facebook. The owners were asking just \$20,000, but of course it did have to be relocated as quickly as possible – that was the first of many problems.

The niggly bits

In most cases, you will buy a home for relocation from a house mover, who has already removed it from a property. It will be sitting on blocks, ready to go to a new location. It will need new foundations, which may differ depending on where you are in the country, but it's a straightforward move onto your site once you have the paperwork organised.

It's a very much bigger project to buy a building, prepare it for removal, then lift it off its foundations for transport. It doesn't stop there, either. Once it has been lifted off its foundations and moved, you will need to clear the site and remove all the debris, not to mention pay for services (power, water, and sewage) to be disconnected.

This must all be detailed in the contract you sign when you buy a building for relocation. In our case, the owners planned to build a new home on the site and wanted to get started as quickly as possible. We originally allowed three months; once that had passed, we faced the very real risk of losing the house and our deposit due to the unforeseen problems. However, we kept up communication with the original owners, who knew we were attached to the house and wanted to save it. In the end, the huge issues the original owners faced in getting consent to start their new home gave us the time we needed to move Eleanor.

Asbestos

Oh, heck! Having drawn up the agreement and handed over a non-

refundable deposit of \$10,000, we were handed an asbestos inspection report that we didn't even know had been commissioned. It was horrifying.

Now, the inspection report doesn't tell you for sure which bits are asbestos, instead it states, "It might be here and here, or there ...". Trust me, if you want to send a house-moving company running, disclose an asbestos report like the one I was handed. Well, it didn't go running, but everything stopped.

As Eleanor was not far from my home, I had decided to do as much of the preparation work as I could.

We knew by now that the move would cost in excess of \$120,000, usually paid in stages. With the real estate market being slow – my day job is selling real estate – I took some time off to do the preparation work, little realising that the task would drag out to almost six months.

As I owned the building and it wasn't a workplace I could, while taking sensible precautions, carry out the work to identify positively and remove what turned out to be relatively small amounts of asbestos. Once this was done, the house was reinspected, various areas and materials tested, and the site declared safe for workers to return and ready the building for removal – then it started raining.



Now you see it – a not-so-modern extension was added as a laundry and toilet; this had to go as it was on a concrete pad and couldn't be lifted with the main structure



Now you don't – interesting that there are three doorways into the house; the middle one was originally an external entry to the original bathroom and toilet



An interesting solution to hold up the corner of the roof; the pillar wasn't original nor strong enough to be relied upon while house was lifted to be transported

Bloody rain

A complicating factor in the move was one of the wettest summers on record. Believe me, you don't want to try to move a building weighing around 40 tons across soft ground. So, while workers had returned, they had to fit our project in with their other jobs, some also held up by weather.

I was busy doing what I could to remove rubbish and reusable native timber from the site, and handling the unexpected extra jobs. Towards the end, things brightened up; we had a solid week of fine weather and therefore didn't need to use the potentially expensive contingencies that included a bulldozer and even a two-stage relocation.

Another reason for increased cost was size. The high ceilings meant the roof had to come off and, as it was just over 11 metres, it had to be split in half. In the four kilometres the house had to

The cook's quarters partly dismantled – I recovered more than 80 per cent of the rimu framing



travel, there were at least nine sets of power lines to go under.

Driveway issues

A problem we faced was how to get the house off the farm. The original idea was to take it down the main driveway onto the state highway, but we were advised that the driveway might not handle the load without being wrecked. The landowners didn't want their driveway wrecked, and I didn't want the cost of restoring it if it was. Luckily, a good solid farm track came in the back of the farm and was close enough to the house site to be an alternative. However, the old cook's quarters were in the way, as was a large underground water tank which had to be opened up and filled with rubble to carry the weight of the trucks. ►

“Believe me, you don't want to try to move a building weighing around 40 tons across soft ground”



“That ring foundation ... plus 100 years of debris, filled three very large trucks and we had to pay to dump it all”

Ring foundations

The house was on what is called a ring foundation – a low wall around the house that carries the outer walls. While the house piles had been renewed at some point, the ring foundation carried most of the structural weight of the building and kept the area under the house very dry. As a result, the bearers and floor joists are in very good condition.

One of the big relocation costs can be the extra work required underneath the house in order to meet current building code requirements. Eleanor might have stood for 100 years but she will still have to pass a modern building inspection before we can move in.

Remember the need to clear the site? That ring foundation you can see with the house raised, plus 100 years of debris, filled three very large trucks and we had to pay to dump it all. We also had to be careful to identify and remove with appropriate safety measures any fragments that might have been asbestos; this went into double-sealed containers. There was not much – a blessing given that original report.

The worst job

My worst job was in the ceiling – it was hot, poorly ventilated, and full of smelly insulation infested with bird nests. This had to be bagged up, then the cavities vacuumed. It was underneath a layer of modern white insulation but it all had to go because the roof was being removed for transportation. I spent the better part of two weeks in a plastic suit with a full respirator; thank goodness it wasn't asbestos-based insulation – we checked.

It's easy to get carried away on a project like this: when I discovered the original hallway ceiling above a modern lower structure, I decided it had to come out in order to save the material for reuse. The house was going to be cut down the hallway anyway – they would use chainsaws; it did mean, though, that all the rooms needed additional bracing to keep the house in one piece for the relocation. ►

Inside the ceiling – a surprising lack of structure





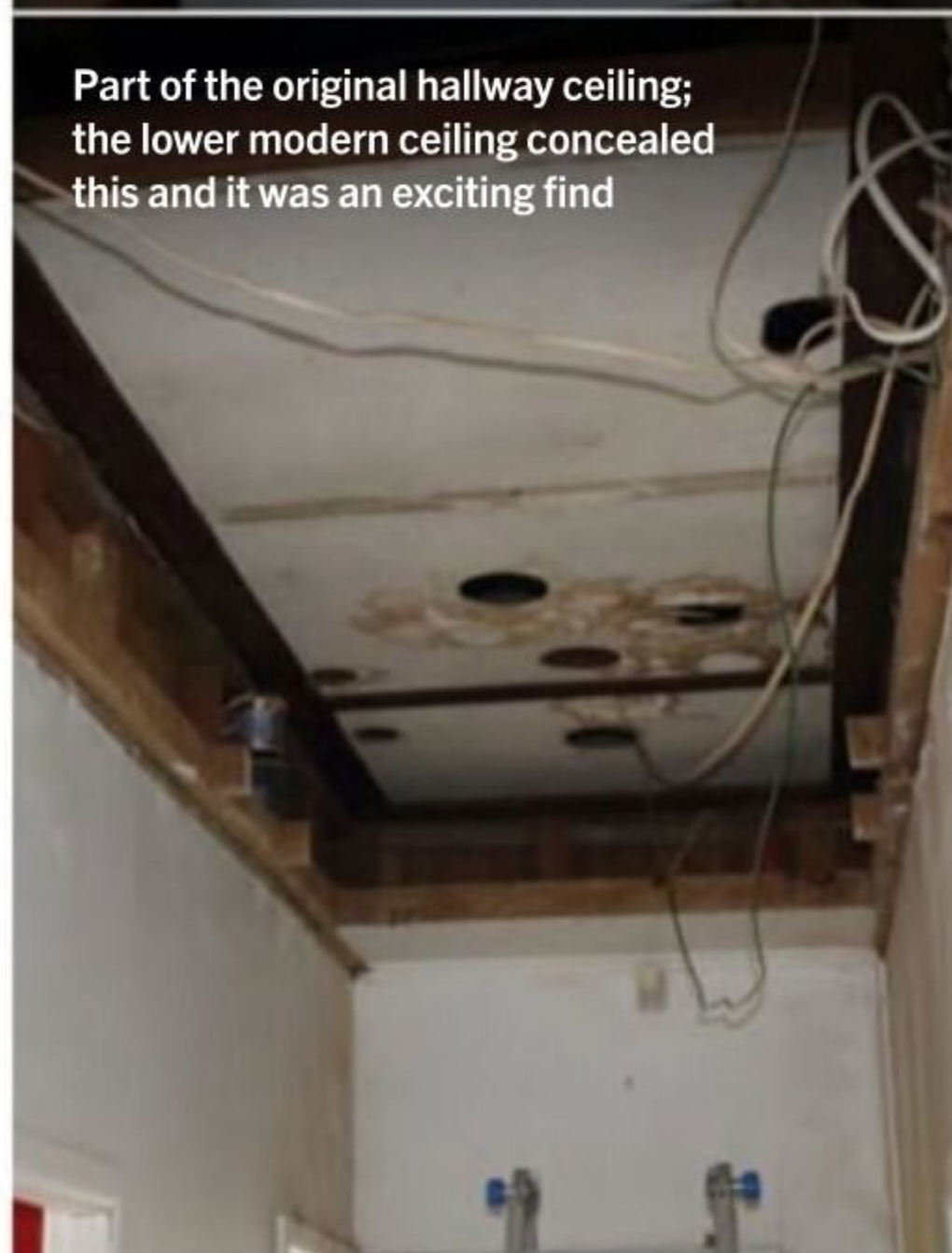
The verandah could not be transported with the house, so it had to be dismantled



With the verandah removed outside the French doors into the parlour, you can see some of the original piles and intermediate newer ones that were not concreted into place



The solid native timber lounge door; lots of future fun to be had getting that white paint off!

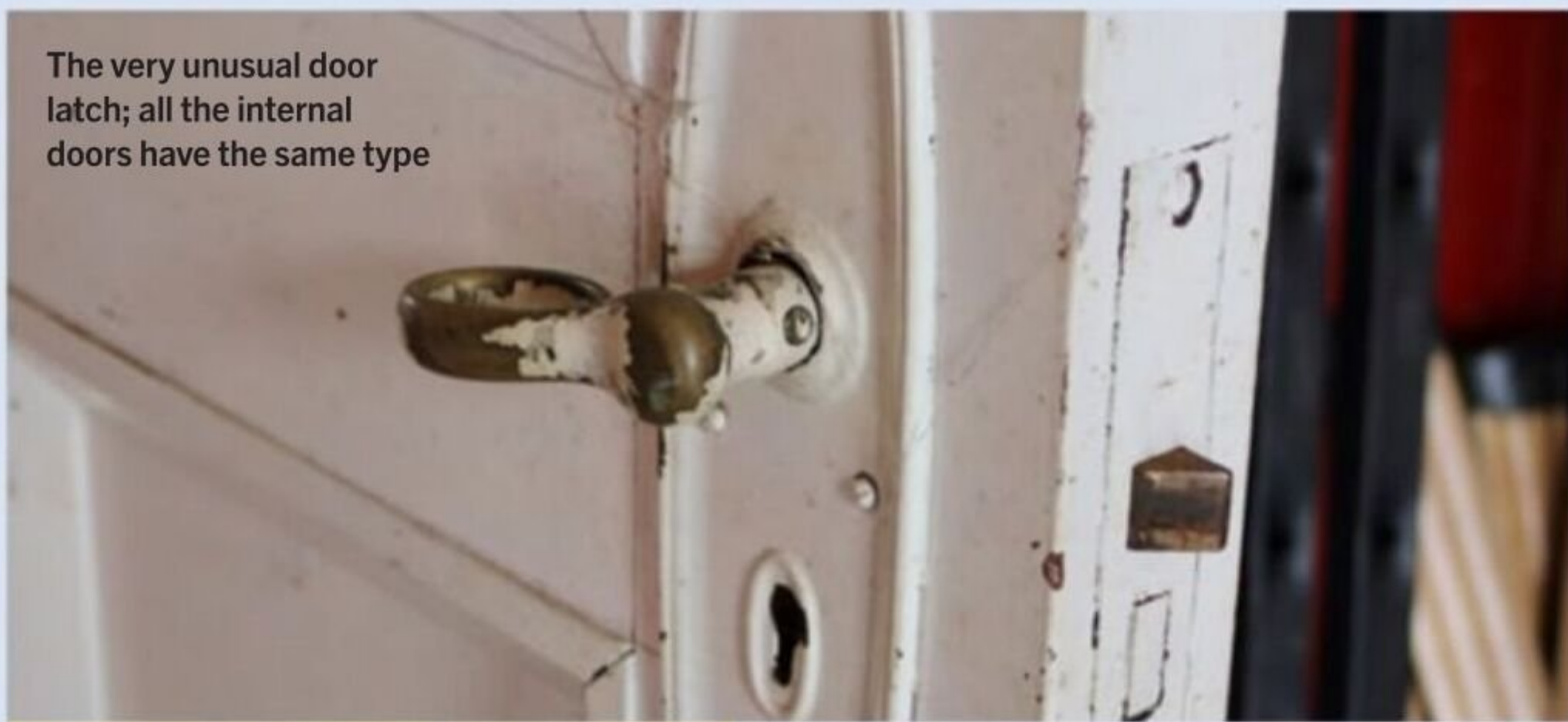


Part of the original hallway ceiling; the lower modern ceiling concealed this and it was an exciting find



The kitchen also had its original ceiling above a modern lower addition; you can also see what was probably the opening for the original kitchen range

The very unusual door latch; all the internal doors have the same type



“This may eventually help us pin down when Eleanor was built”

Original features

As all the focus was on getting the house moved, it was only later that we realised that the doors and door furniture were likely original to the house. All the internal doors have the same design and a very unusual door latch I’ve yet to see anywhere else.

The parlour, which opens onto the verandah via a set of French doors, will become our master bedroom. It has a most unusual window. A similar one, with the same dimensions, was in another house of the same era as Eleanor. Our best guess is that a series of these were made and sold to different house builders. This may eventually help us pin down when Eleanor was built.

During renovations – likely in the 1970s – lower ceilings were installed ►



The curved, stained glass window in the parlour faced south in the original house



The slightly butchered serving hatch between kitchen and lounge; it will be restored

Houses are only ever moved at night – here is Eleanor at dawn at her new home; the short trip meant the local crew could go home ready to start bright and early the next day



The original dining room ceiling; the bracing will stay until the house is lowered onto its new foundations



The house will need an entirely new roof so a temporary structure was built in place of what had been cut away and the original iron sheets put back



“Rest assured we bought her for her character and very much want to keep that, and enhance it where possible”

in the hallways, several of the bedrooms, and the kitchen, but the dining room ceiling was left alone. The advantage of a high ceiling is that even a smallish room can feel very spacious. The original ceilings in Eleanor are 3.1m, making what is a sizeable house feel even larger.

Helpful council

The local council has been helpful. The house is one of the oldest in the district and they gave us the go-ahead to move it without needing to get building consent. This was because the house isn't currently considered to be a habitable dwelling; it is regarded as being 'in storage' as it sits on its temporary supports. It's high enough off the ground for someone to be able to work underneath and install the new bearers and piles.

The first phase of Eleanor's makeover was the move; if you want to follow our ongoing progress, she has her own Facebook page at <https://www.facebook.com/p/Eleanors-Makeover-100084724167684/>.

Stage 2

The next stage, which is under way, will be to install the new piles and support

bearers. This is progressing slowly until my real estate earnings pick up.

We have started the paperwork and have the engineering information for the building consent that will turn her back into a dwelling once she is on new foundations. There are lots of possibilities around how we reconfigure the interior, especially the kitchen, dining area, and family bathroom. No firm decisions can be made until the house is securely down on new foundations, but rest assured we bought her for her character and very much want to keep that, and enhance it where possible.

We have no regrets about the project, and would do it again to get a building like Eleanor – a real classic worth saving. Had we known then what we know now, it could have been done for less and with far less stress.

There is still much to do, and at times we considered walking away, but we are both glad we stuck it out. In terms of my own life experience, it's very much in the category of 'What doesn't kill you, makes you stronger', but I'm stubborn when I want to be, and I wasn't going to give in easily. I'm so glad I didn't. 🏠

Eleanor waits patiently



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SOUND DESK

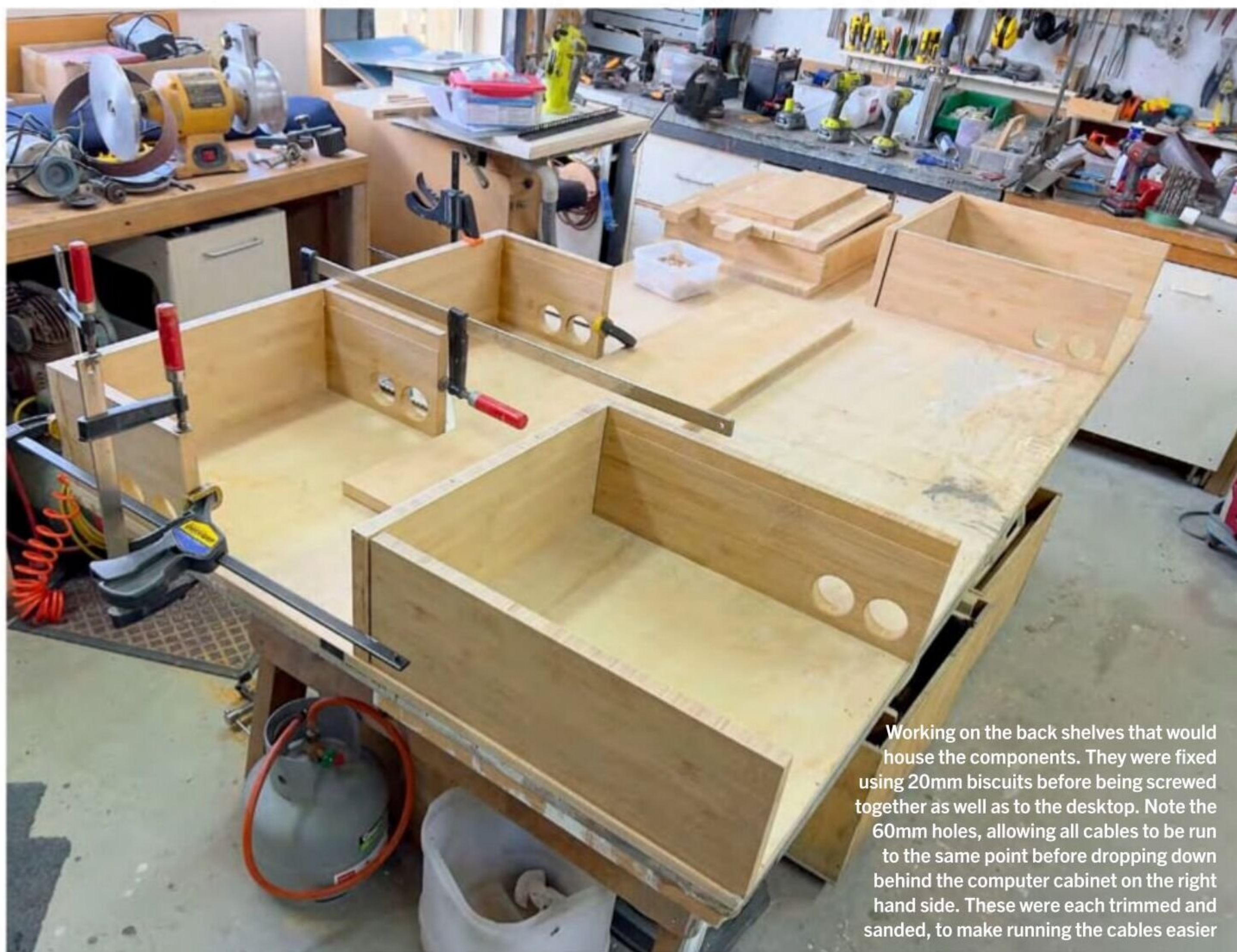
A SYNTHESISER AND PIANO KEYBOARD WORKSTATION

A weighty project brings its own challenges,
but the result gratifies both creator and client

By Nigel Young
Photographs: Nigel Young



The sound desk with all its components fitted. Clearly the desk had to complement them in terms of looks, value and integrity



Working on the back shelves that would house the components. They were fixed using 20mm biscuits before being screwed together as well as to the desktop. Note the 60mm holes, allowing all cables to be run to the same point before dropping down behind the computer cabinet on the right hand side. These were each trimmed and sanded, to make running the cables easier

An opportunity to build a bespoke sound desk came my way recently – one that on the one hand was relatively simple, while on the other hand was very specific in its design, demanding a very high quality of finish.

It started with some sketches, a walk through a local hardware store to determine the materials required, a ride on my Kawasaki W650 to see the equipment that had to be accommodated, 3D drawings in SketchUp to see how it would all come together, and a lot of emails just checking and refining the details.

This would be a project about logistics, priorities, and process – with a few surprises on the way past. The main considerations were:

- Handling and storage of expensive materials to ensure they don't get marked or damaged
- A cutting schedule
- Very accurate dimensions and ergonomic considerations

“Once assembled, the desk would weigh around 110kg”



My SketchUp drawing showing the final design. There were no departures from it during the build



Des Thomson using a milling machine with the 60mm Forstner bits to put the cable holes in the desk top. I was at the other end – 2200mm away – holding it flat while Des drilled the holes



- The specific requirements of dealing with music and sound – in this case, vibration and any interference by the desk in the process. This would mean that I couldn't have two steel surfaces touching, for example
- Both the weight and value of the considerable amount of equipment, its layout and accessibility. This included allowing for a piano keyboard to be mounted on a sliding shelf and kept under the desktop when not in use
- The use of castors – this was ultimately discarded due to their impact on the height
- The nature of the bamboo panels; the bamboo was very hard on tools – something I would factor in if I were to use bamboo panels again

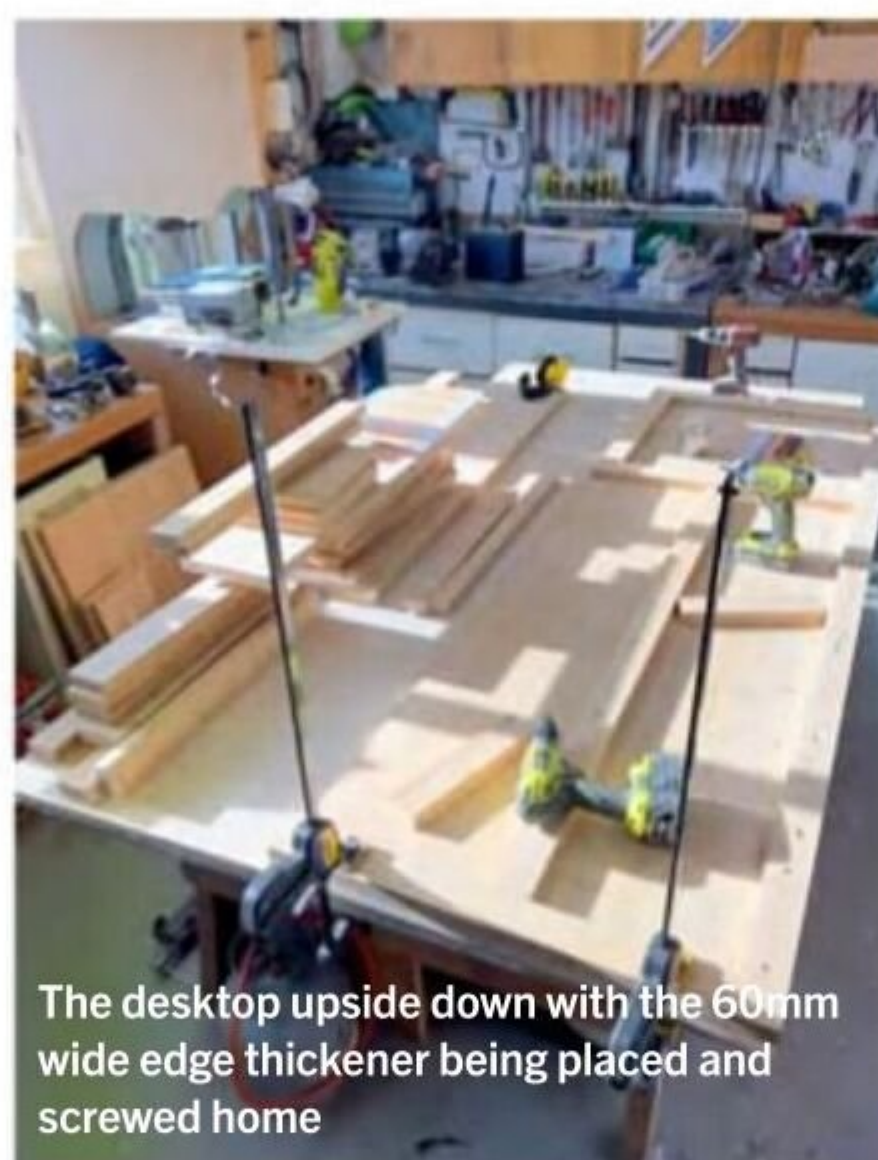
The weight: the four sheets of 2200x600x25mm laminated bamboo benchtop each weighed 21.5kg, while the four proprietary steel legs to hold it all up each weighed around 5kg.

Once assembled, the desk would weigh around 110kg – and that was before the equipment was installed. The Yamaha DX7 keyboard alone weighed 14.2kg.

There was confidence in knowing the desk was very stable, and therefore wouldn't detract from the user experience. However, the weight did influence our decision on how we would transport it.

The components

The desk was to be 2200mm (nominal) long, 700mm wide, and 1350mm (nominal) high. There were



The desktop upside down with the 60mm wide edge thickener being placed and screwed home

five components to consider: the configuration of the steel legs; the desktop at 700mm, which would require an additional 100mm; the back shelves at 305mm and 575mm high; the under-desk sliding shelf for the keyboard; and a separate under-desk cabinet on the right for a computer. The taller back shelves would take reference speakers on top, while the lower one would hold the computer monitor.

The back shelves all had to be drilled to take cabling, as did the desktop. This was all routed to the one point at

the back of the desktop before going out to a power point. All the vertical edges of both sets of shelves would take black rack rail at 270mm and 540mm respectively. These would have a 5mm clearance at either end, except for a computer cabinet, which had 5mm at the top and 62mm at the bottom. The computer cabinet would have a typical 100mm toe space going back 75mm from the front edge of the desktop.

Broken down to its components, then, we had:

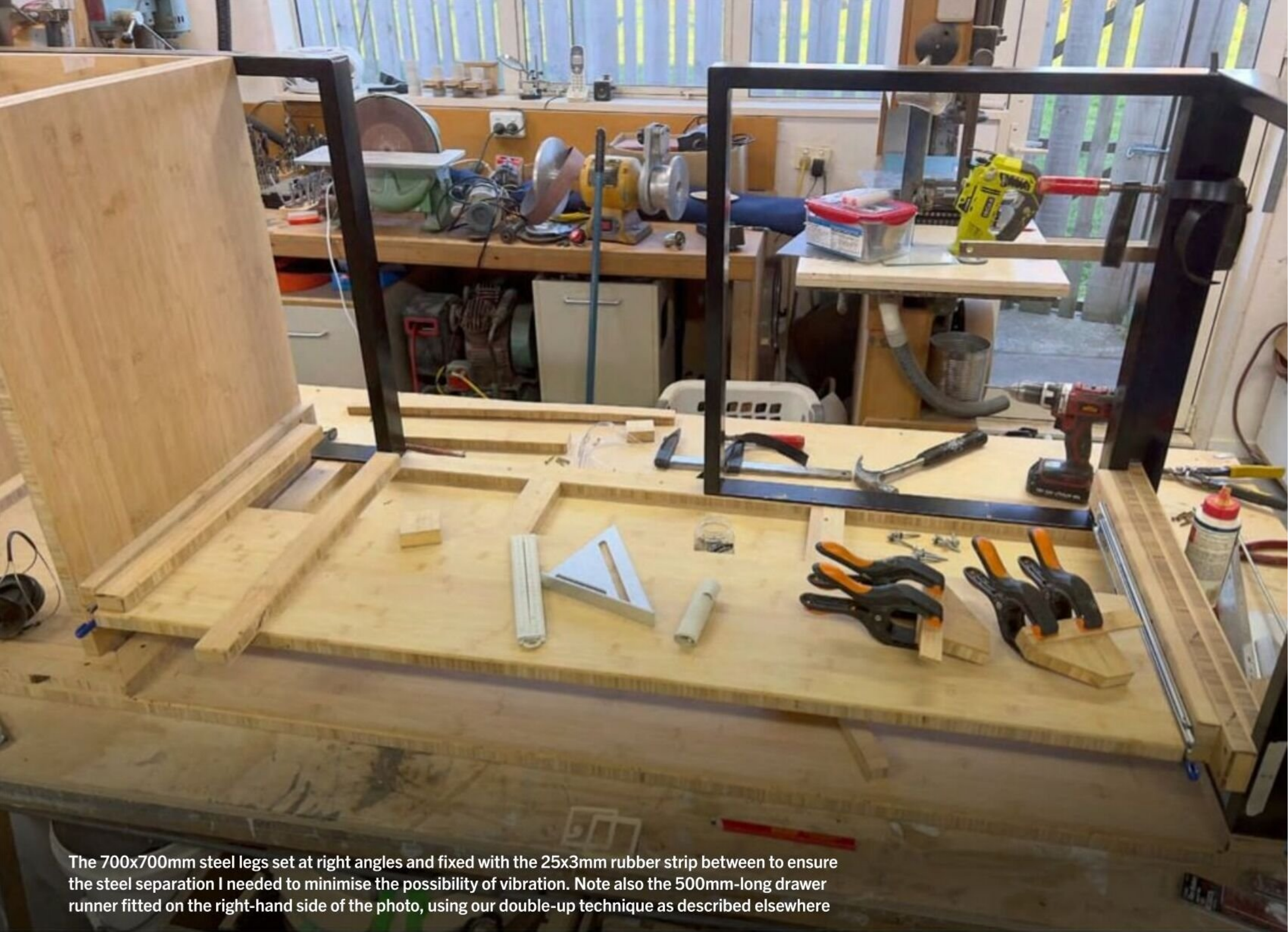
- The steel legs
- The desktop
- The desktop back shelves
- The under-desk computer cabinet on the right-hand side
- The under-desk keyboard shelf mounted on drawer slides

The design process

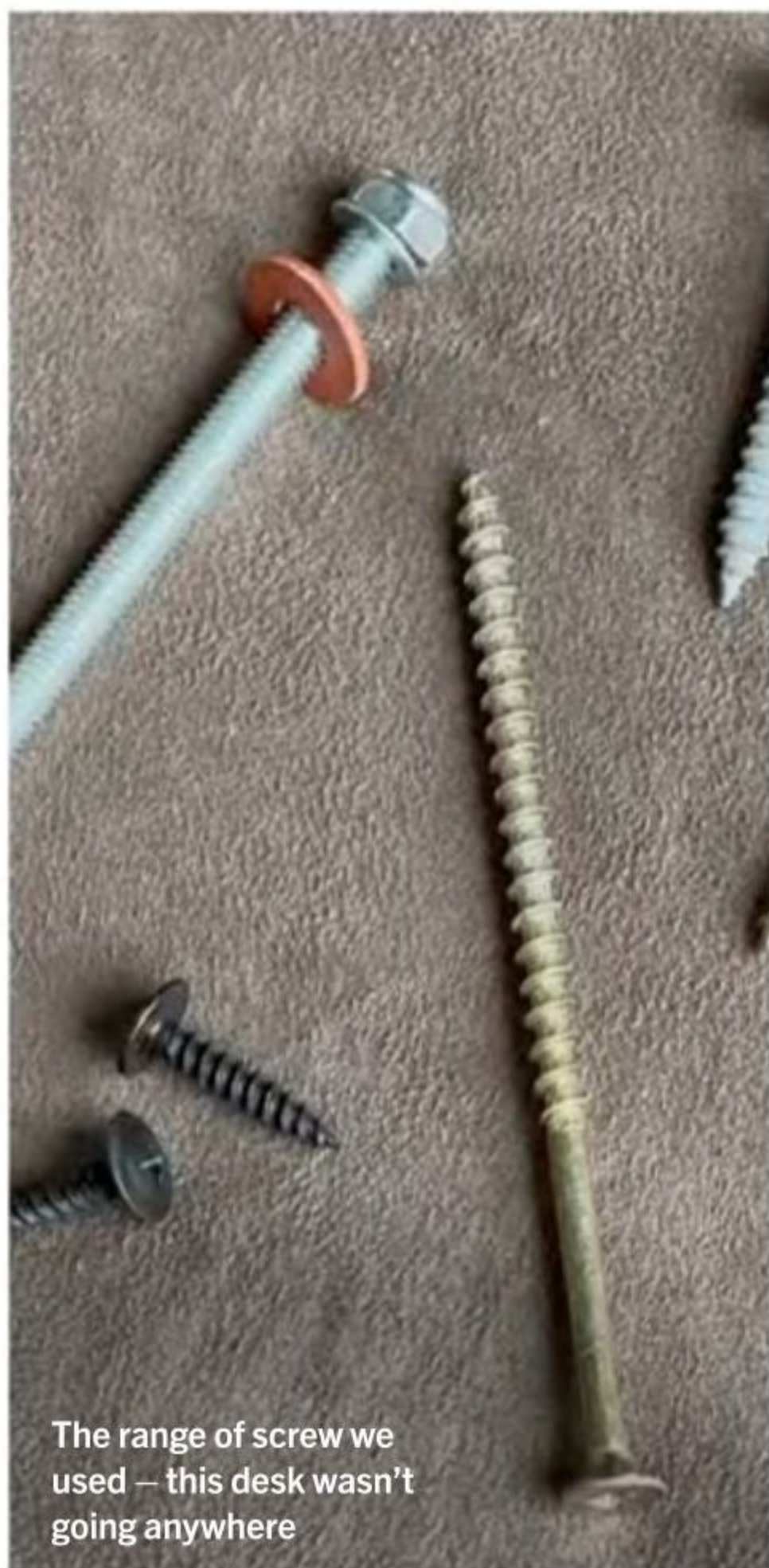
Three main criteria dictated the final dimensions.

The four back shelves had to have an internal dimension of exactly 486mm in order to accommodate the equipment, all of which would be mounted on the rack rail. The sum total of these, plus the seven vertical sides at 25mm each, would determine the final length of 2119mm.

The next determining factor was the sitting/working position, which required a 600mm clearance to the underside of the keyboard shelf for leg room, the



The 700x700mm steel legs set at right angles and fixed with the 25x3mm rubber strip between to ensure the steel separation I needed to minimise the possibility of vibration. Note also the 500mm-long drawer runner fitted on the right-hand side of the photo, using our double-up technique as described elsewhere



The range of screw we used – this desk wasn't going anywhere



depth of the keyboard shelf with some clearance for the keyboard itself, and finally the floor to desktop dimension. This would be set by the steel legs and desktop thickness. This could have come down by 25mm if I had decided not to thicken the desktop edge, but we needed it in order to give the steel leg/desktop connection a decent depth for the legs to screw into. The decision around screws and fixings was an easy one – as big and thick as I could find.

In the end, we used Hi Grip hex head roofing screws with rubber washers – once again separating two steel surfaces.

The sturdy legs

The final determining factor was the steel legs, at 732x700mm in a square configuration. This was 60x30mm furniture-grade steel box section with 60x5mm flat on the top, pre-drilled with four holes suitable for M6 fixings, to take whatever was being fixed to it – in this case, the aforementioned roofing screws.

We would use four of these box legs, bolted together in two 90-degree configurations, with a strip of 25x3mm rubber between them, for the steel to steel sound vibration separation. For fixing together, we would use 110mm M6 bolts with Nyloc heads and fibre washers.

The height then was 732mm plus 50mm from the combined bamboo desktop and 60mm-wide edge thickening strip all the way around,



Another picture of the back shelves and the assembly process

“In construction terms, it was similar to building with portal frames”

which I was using to strengthen the edge, making it 782mm from the floor. I couldn't have one of the strips at the front due to the clearance needed for the keyboard, so I set that one back under the desktop as close as I could to the back edge of the recessed keyboard shelf.

The bamboo was sturdy enough

This ultimately proved redundant due to the stability of the laminated bamboo panels. We discovered this when the client went to install his Yamaha keyboard – the cables at the back protruded at an upward angle, and clashed with it. I also added 60mm strips under the top shelf ends to give them extra support. These would be screwed in place using 50mm square head 8g wood screws and go across from the back edge of the desk to the back edge of the strip, just behind the keyboard. The shelves would be fixed to the desktop using the 100mm version straight up through the strips and the desktop into the bottom edge of the



sides. Since I had doubled up the sides in order to provide a better support for the lower shelf, I could now use a total of four pairs of 100mm screws 25mm apart, going across on both sides, plus another four at each end and the single middle one. This shelf wasn't going anywhere. During the design process, I wondered whether this would require bracing. In construction terms, it was similar to building with portal frames.

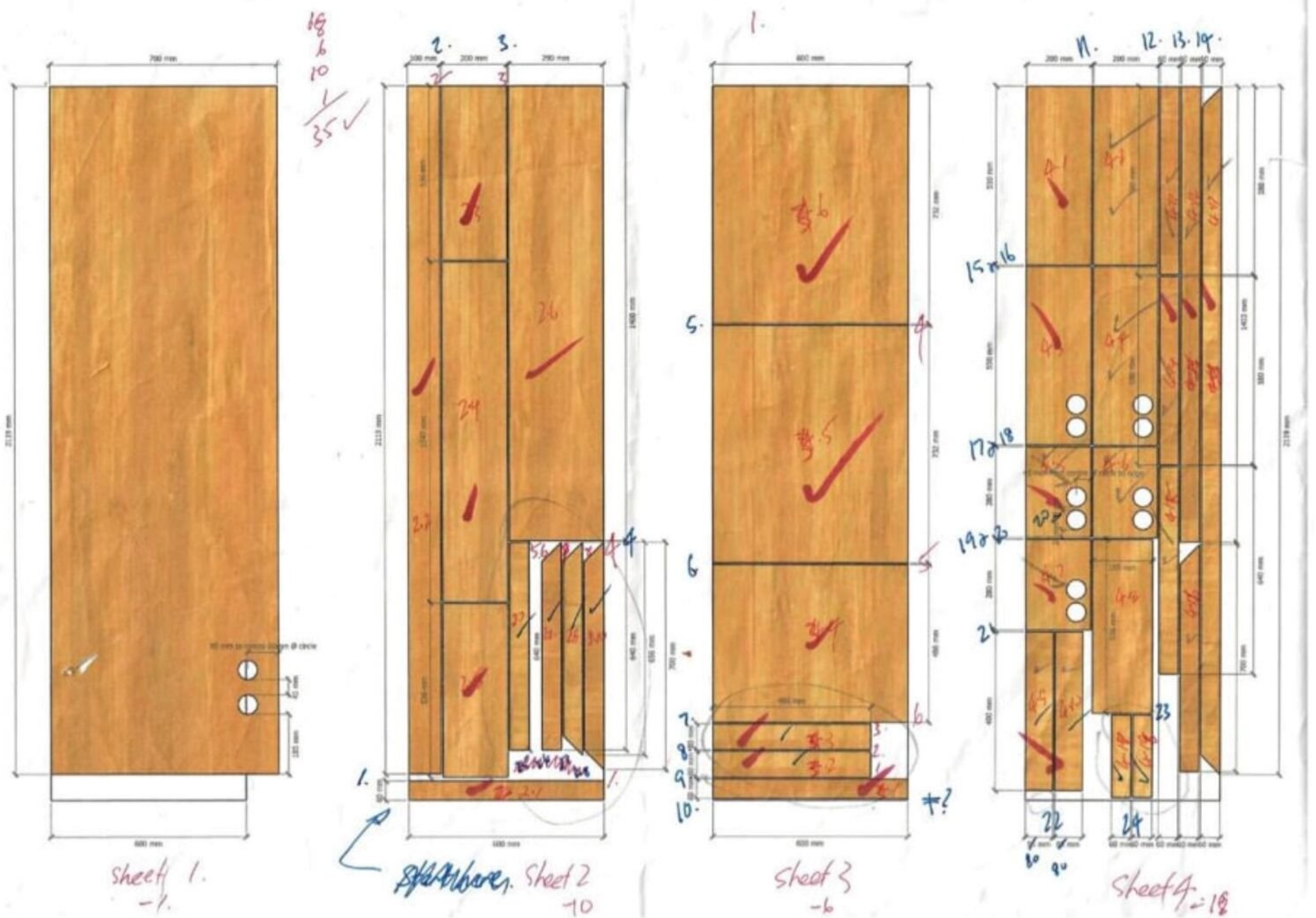
The preparation process

The assembly of the steel legs in their 90-degree configuration was straightforward enough. The sides needed drilling in two places – for which we would use a 7mm bit, allowing a 1mm clearance for the M6 bolts – with one side being the 30mm edge while the other the 60mm edge. Add the 3mm-thick rubber strip and two fibre washers to each, and a 110mm M6 fixing would be needed. We would use Nyloc nuts to reduce the possibility of them becoming loose over time from vibration. The 30mm difference would prove to be very useful for the fixing of the keyboard drawer mechanism.

The bamboo panels

The next step was cutting the four bamboo panels. I had determined that we would need 35 separate pieces, and they all had to come from the four – at \$135 and 21.5kg each, I wasn't going to buy a fifth one.

I drew up a cutting plan and then



My cutting schedule from the SketchUp drawing. There was minimal waste – I was determined not to use a fifth sheet

went to get advice on the best way to cut them. Although the panels show the bamboo running lengthwise, the core runs crosswise, so any cutting down the length was primarily a cross cut, which in turn meant using a finer blade. I settled on a 184mm Diablo 60-tooth finishing skill saw blade.

The other advice I was given was to

run masking tape down the cut-line first, as this would also help prevent the edge from tearing as the blade teeth came up out of the cut.

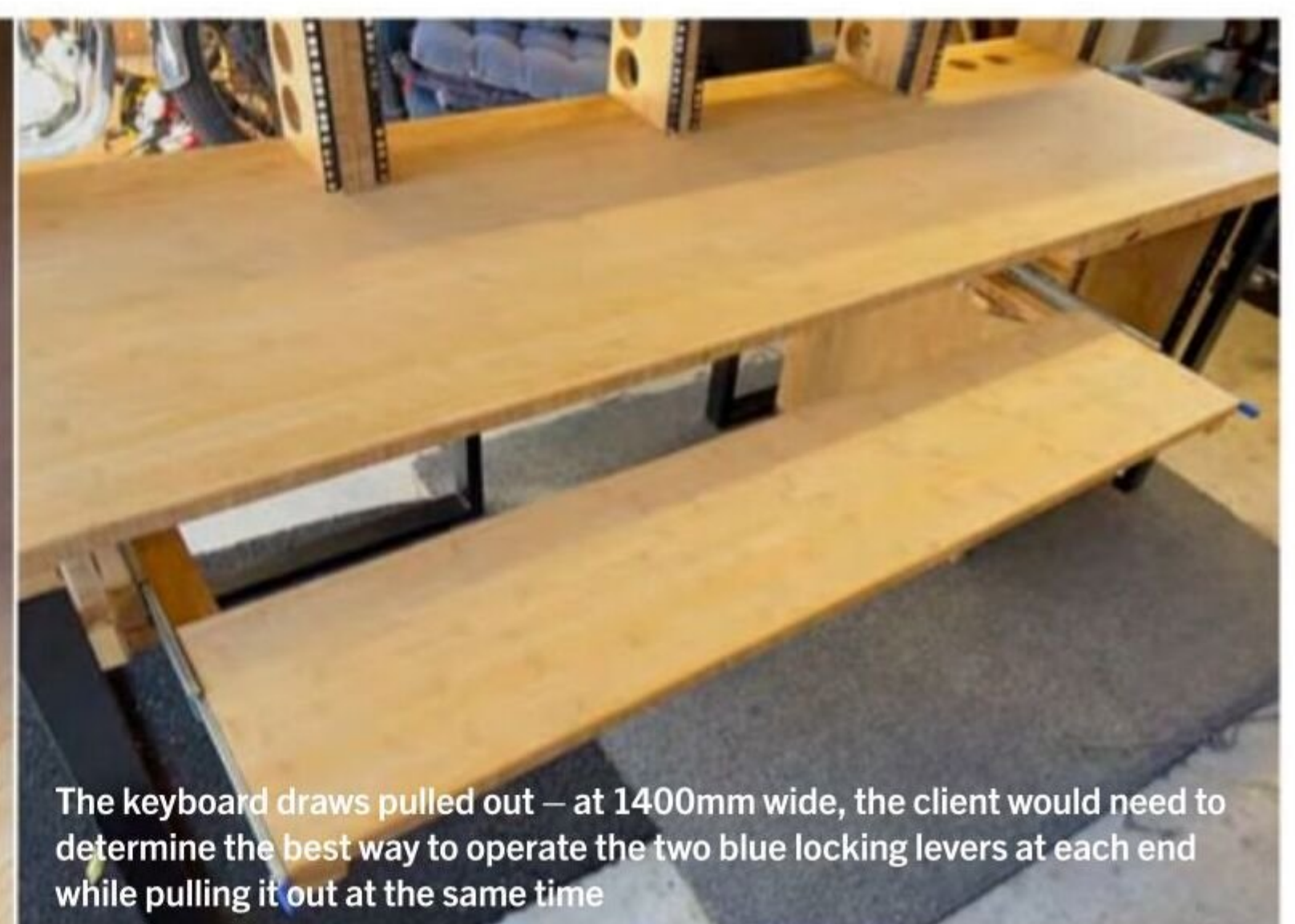
One advantage of this was being able to draw a decent cutting line on it, without having to mark the bamboo panel itself. My primary concern here was the integrity of the edge cut, as

there will be a lot of it on display.

The final step was drilling the 60mm-diameter cable holes, for which we would use a Forstner bit. We then routed the edge to a curve to make cabling easier to place. This also was done at the user-interface edges. With 25mm of bamboo to attach these to, we had no concern over the integrity of their installation. ►



These pics show the process for fitting the rack rails. Notice the 5mm thick piece of wood that the rack rail is sitting on prior to fixing – this would ensure the consistent gap for all of them



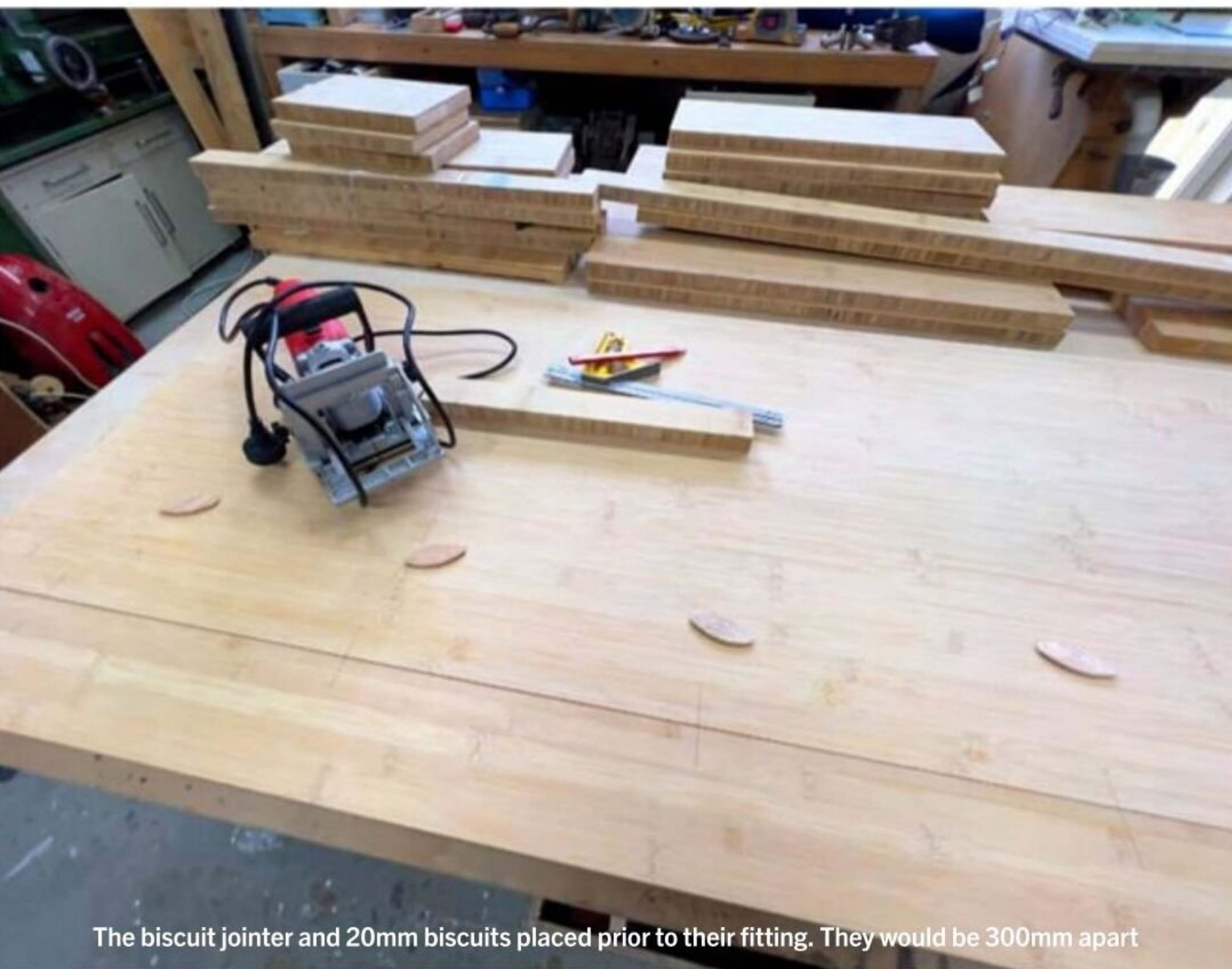
The keyboard draws pulled out – at 1400mm wide, the client would need to determine the best way to operate the two blue locking levers at each end while pulling it out at the same time



Using the biscuit joiner to prepare for the 20mm biscuits used in joining the 100mm-wide strip to the back of the desktop in order to make it 70mm wide. This was needed as the tell legs were 700mm wide



The 100mm strip glued and clamped to the desktop – notice the over and under approach to the clamping in order to prevent any movement in terms of its flatness



The biscuit joiner and 20mm biscuits placed prior to their fitting. They would be 300mm apart

“So for \$82.25, I killed two birds with one stone. Sweet”

Biscuits and glue

I had decided to use a biscuit joiner with 20mm biscuits in conjunction with Gorilla Glue to ensure a substantial bond for the majority of the joins. Where screws were required, I used 50mm hex head roofing screws to fix the bamboo panel to the steel legs. These were never going to let go. They also came with rubber washers – again to minimise any potential vibration. The only other fixings were the M6 bolts between the steel legs, 8g 20mm black button head stitching screws for the rack rails, and the square head 8g wood screws everywhere else.

The keyboard drawer mechanism was a

pair of 500mm-long ball bearing runners with rail locks. These were rated at 60kg, and I bought them online from Fullie Hardware. There would have been a \$9.50 courier charge, but Fullie was advertising free delivery for any purchases over \$75. These bearing runners were \$67.75, but I also found 20mm biscuits at \$14.50 for 100 – so for \$82.25, I killed two birds with one stone. Sweet.

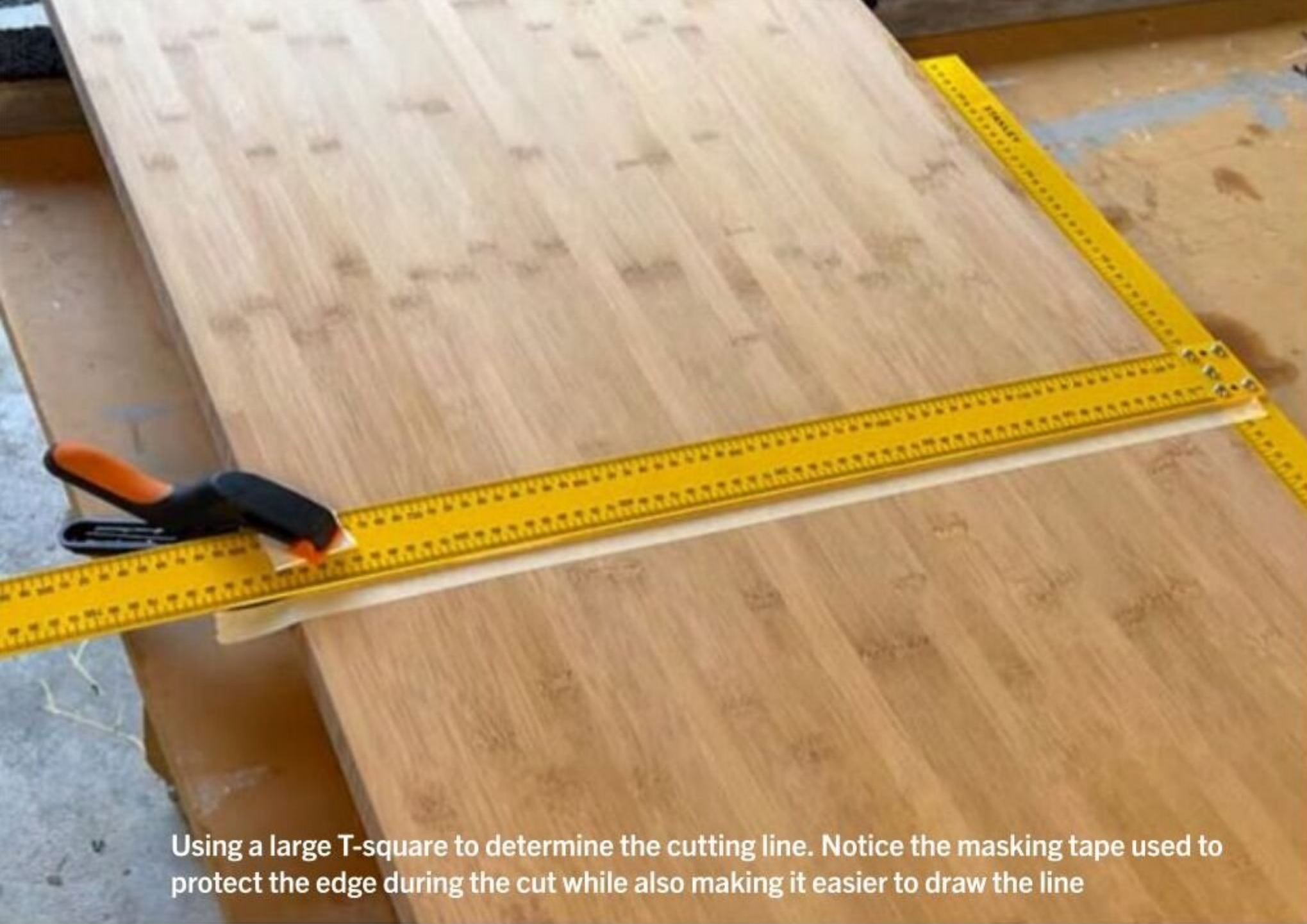
The build process

Two crucial factors would determine the rest of the build: the four 486mm shelves on top of the desk and the clearance required for the Yamaha DX7 keyboard. Getting these wrong wasn't worth thinking about.

The 486mm widths were determined by the electronic synthesiser components that were to be installed, and, while the fixings between these and the rack rails had slots for a bit of tolerance, I wasn't going to rely on that – I needed to get this right first time. I had drawn up the configuration of the synthesiser as part of my design, so I had thought the process through then. This was just a case of putting it into place correctly.

Cutting schedule

When I laid out the cutting schedule, I allowed 5mm for the thickness of the saw blade. This meant that the keyboard shelf would be 290mm wide. The Yamaha keyboard was 329mm wide, so I needed to be sure that the lack of the 39mm wouldn't cause a problem. As it turned out, the feet were 200mm centre to centre across, so this was fine. The pitched forward front of the keyboard



Using a large T-square to determine the cutting line. Notice the masking tape used to protect the edge during the cut while also making it easier to draw the line

“Great control was required to prevent them skittering away and damaging the surface of the bamboo panel”

also allowed for the smaller footprint, as this was where much of its width was.

My cutting schedule showed each panel, which I numbered 1–4. I then labelled each piece as 2.1, 2.2, 2.3, and so on, and counting each piece confirmed my total of 35.

I put a small piece of masking tape on each piece, with its designation: 2.1, 2.2, 2.3, and so on, so that each one matched its position on the schedule. When we came to assemble it all, there wouldn't be any guessing as to whether we had the right piece or not.

All the big pieces were cut out at the beginning, with the smaller ones and the mitres done on a crosscut saw equipped with a 100-tooth blade. The cutting was done using tracks that had been designed to accommodate the skill saw, and the results were perfect – no wandering or variation, just superb cuts.

On the limit

I learned that, although the width of 486mm for the equipment shelves was correct, I hadn't allowed for the 90-degree curve in the rack rails, so we were right on our limits, and in one case slightly under. I discovered this when the client came in with some of his equipment to check our accuracy. We resolved the issue by routing a 3mm-deep strip out of the side of each shelf side. This was effectively a rebate that allowed for the rack rails to be flush to the sides, and should the problem ever go the other way, and be too wide, the client could unscrew the rack rails and put a washer behind each screw, packing it out as required in a way that would be barely noticeable.

“It works for me,” was the client's response.

The rebate was done using a router, with the width to match the rack rails. This required two passes, but with sanding it was fine. Five of the sides as well as the desktop required a pair of 60mm-diameter cable holes, for which we used the Forstner bit. These needed to be used in a drill press, as great control was required to prevent them skittering away and damaging the surface of the bamboo panel. This proved interesting when it came to the two holes needed in the 700x2119mm desktop. The rest were very straightforward. ▶



Fixing the other drawer slide to the back of the computer cabinet



The rack rails, the 3mm rebate, and the pair of 60mm cable holes in the back shelves



Clamping the rack rails in place prior to drilling and screwing



The keyboard drawer at full extension showing the mounting for the stop mechanism. We used a typical kitchen soft-close mechanism, only in reverse

A small extension required

The steel legs were 700mm wide, which meant that the desktop would need a 100mm extension to the 600mm wide panel.

We glued the extension on with Gorilla Glue and 20mm biscuits – one every 300mm – and clamped it all with four large extending clamps, staggering one up, one down, and repeat, in order to prevent any upward lift while it dried. We left it for a couple of days, and then used a chisel to remove any excess glue.

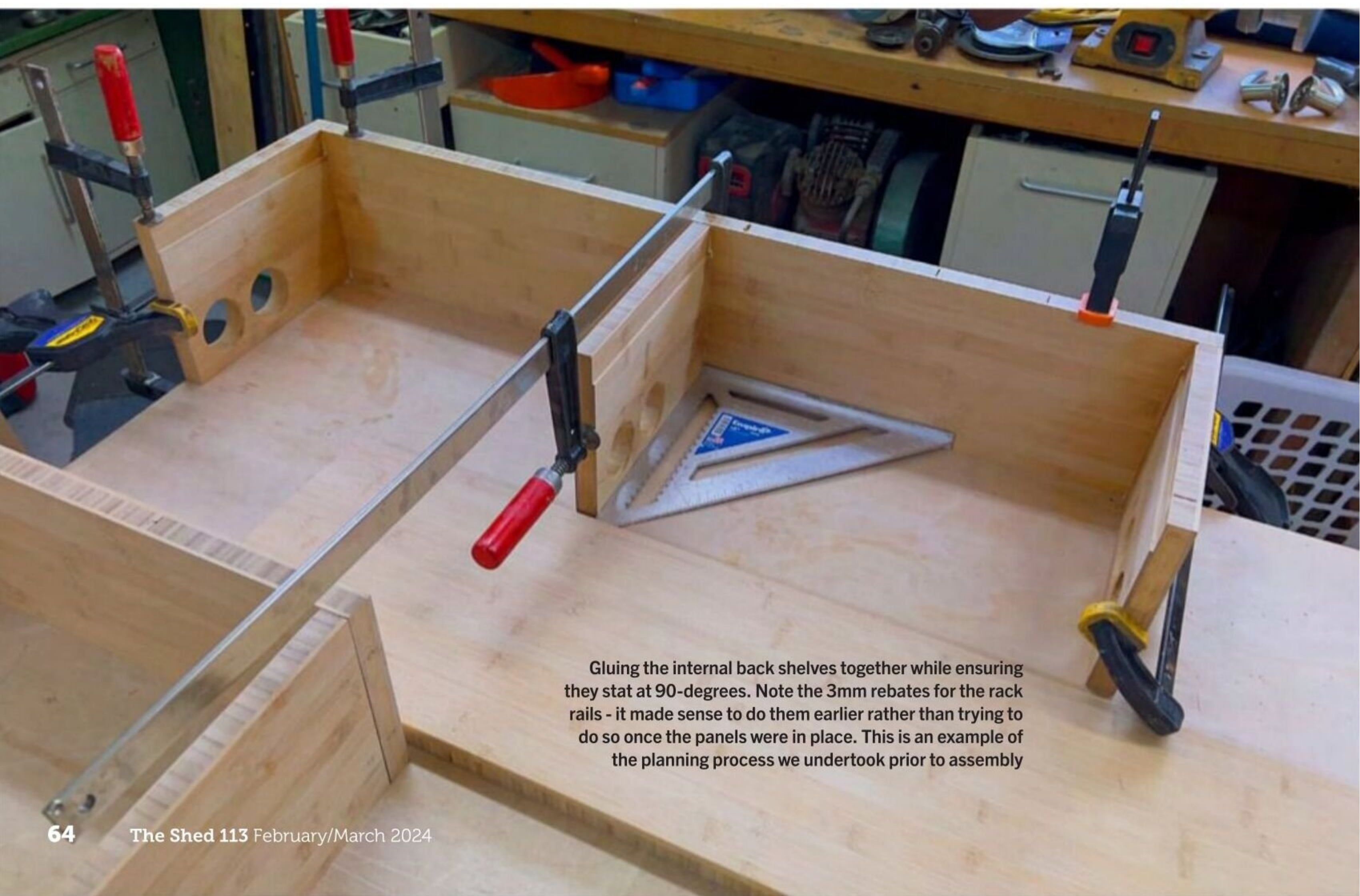
The idea here is to use one that is not too sharp, with the flat side to the surface, using it as close to flat as possible. This is to avoid the possibility of the chisel digging into the panel, and then the problem of having to fill it without the mishap being obvious. Whatever wasn't removed by the chisel would be sanded out. We used a belt sander for this, and the finish was fine. Given that this would be at the back and hidden by all the equipment, seeing it was never going to be an issue. We put two factory-machined edges against each other in order to achieve the best quality join.

Fixing the edges

Once I had determined which side was up and to be the desktop, we flipped it over and began to screw-fix the edging all the way around. There was no need to glue these, as it was just a 25mm packer to provide extra fixing depth. The steel legs were 60mm wide, so we had cut the edges to match.

I originally intended to use 110mm M6 engineers bolts to fix the legs into their 90-degree configuration; however, they were hard to come by, and even then I couldn't be certain that the amount of thread at the end of each bolt was sufficient.

I would use Nyloc heads with fibre washers, in order to physically separate steel from steel so that no vibration could occur, vibration being a major issue with music given the range of frequencies involved. In the end, I decided to make my own out of M6 threaded rod – that way I was guaranteed all the thread I needed – along with a Nyloc head and the fibre washer at either end.



Gluing the internal back shelves together while ensuring they stat at 90-degrees. Note the 3mm rebates for the rack rails - it made sense to do them earlier rather than trying to do so once the panels were in place. This is an example of the planning process we undertook prior to assembly



The computer cabinet being built, showing a typical toe space at the front

Rear shelves

The two-level shelves at the back of the desktop were formed as three individual components, the two taller end ones and the lower middle one. The joints were all 20mm biscuits, with the exception of the centre of the lower middle one, where we used dowels as it was easier to be more accurate with their placing. Each component was then fixed to the desktop as described above, with the middle shelf also being fixed through the side of the inside end shelf into the ends of the lower middle shelf. The result was like a box brace attached to the desktop, sitting on top of the L-shaped steel legs. With the desktop itself acting as a diaphragm brace, the integrity of the desk was never in doubt.

The computer box

The computer box under the desktop, on the right, was made separately, and then screw-fixed in place. I didn't put a back on this as it was unnecessary.

The bottom shelf sat on the strip used to create the toe space. This was continued all the way around, so as to give the shelf extra support. The inside side of this would also take the 500mm-long drawer mechanism on the right-hand side, screw fixed through from the inside. The computer box was then fixed to the underside of the desktop, using

a wooden flange fixed to the top of the side. The outside panel was also screw-fixed to the steel legs at the toe space and behind, ensuring the integrity of the assembly. This gave the bottom of the box more security during transportation.

The drawer

The left-hand drawer mechanism was fixed to two pieces of the bamboo panel sandwiched together, with a 60mm-lap at either end. These were screw-fixed to the steel legs and proved to be an excellent way of supporting the keyboard shelf bracket. Once these were in place, we could tackle the final part of the build – the under-desk keyboard shelf.

Fitting the shelf to the brackets was very straightforward, and the

mechanism was very smooth, operated by two levers, one at either end. At 1400mm apart, this would take a bit of practice as they both had to be pushed down and then used to pull the shelf out for use. At 500mm long, the shelf would come out 500mm – far more than was needed; it only needed to come out around 330mm. This was controlled using a typical soft-close mechanism – the sort found in kitchen and bathroom drawers – only we used it in reverse. Triangular-shaped stops were installed, which in turn held the ends of the soft closers. It all worked well – the client could slide it out using the two levers at each end, and then a very slight pull on the shelf unlocked it and allowed it to be pushed back under the desk. ▶



The keyboard drawer mechanism showing the triangular block that supports the soft-close mechanism



All finished and sitting in my garage awaiting pickup. It has one coat of Danish Oil on it to seal it against greasy finger marks, coffee stains, and the like. It made the finish 'pop'. The client was very happy with it

Final touches

The final step was to seal the desk with a coat of Danish Oil prior to fixing the rack rails. This would protect the surfaces from marks left by the natural oils in the hands, rings from coffee mugs, and the like.

Very little sanding was required, as the surfaces were pre-sanded during manufacture – it was just a matter of some touch-ups and cleaning from the build. Pencil marks needed during the build came off using an eraser. The rack rails were then screw-fixed with their 5mm clearance top and bottom. I stood each one on a 5mm-thick strip of wood to achieve this, to give consistency across all of them.

The results

The weight and eventual transportation of the desk were always going to be an issue – even the drawer brackets from Fullie Hardware weighed around 3kg. The four steel legs alone weighed nearly 20kg. That, added to the combined 86kg of the bamboo panels, led to the decision to use a professional moving company with the expertise to lift and transport the desk.

As we had made the decision earlier not to use castors to move it around, it became important that the bottoms

of the steel legs were able to move as frictionlessly as possible when required. Without that, any future manoeuvring would risk damage to either the desk or the extra 25kg of components that it accommodated – or both.

Happy client

The client was pleased with the desk. He discovered the issue around the cables from the back of the keyboard, and, after a brief visit and consultation, fixed it himself.

again, although the 700mm-width of the legs against the 600mm width of the panel will always be a consideration. The edges responded well to a trimmer where needed, with the rest being sanded to take away the sharpness.

The whole project took about six weeks, with many years of enjoyment ahead for the client. The emphasis is on the music, sans any interference from the desk itself, and the result is a great example of modernism's mantra: form follows function. 🎧

“The whole project took about six weeks”

It was an interesting project – the bamboo benchtop panel was beautiful to work with and gave a superb finish. Just keep in mind the hardness of the bamboo and the need to use a fine blade when cutting it. I would certainly use the bamboo and steel leg approach



Moving it – the desk being tied back to the truck and covered with a blanket for protection

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ANOTHER SHED!

Letting the imagination run wild led to an innovative solution to a challenge —
and resulted in a magical space

*By Scott Gavin
Photographs: Scott Gavin*

Why build yet another shed? Was I bored? Do I have copious amounts of spare time? To spend lots of money?

The respective answers are: No; NO!; and Absolutely not!

So why?

Well, my wonderful wife has spent many years perfecting her skills as a potter, and later a jeweller. Our house is full of colourful pottery pieces and stunning silver creations. However, my garage was also filling up with pottery tools, bags of clay, buckets of glaze, and even a very large kiln. The decision was made to build my wife a pottery shed.

This was a significant project, but it turned out to be the most wonderful creative space, and a great place for her to hide from me and the kids. The pot shed – no, not that sort of pot – was a typical weatherboard type of construction, designed around the used aluminium glazing we could find on Trade Me.



The indoor–outdoor rock and the bottle wall

A second shed

Several years later, my son started to show a penchant for all things electrical. Suddenly, his bedroom was clogged with soldering irons, broken appliances, and general mess – and so was my garage! Again, the call was made to construct a shed.

Our section is small, steep, and mostly bush covered, so my son's 'mad scientist's lair' is nestled in the bush, between some trees. We decided to clad it in polished stainless steel to reflect the bush and 'hide' it in its surroundings. This turned out to be a very effective finish.

That left my favourite, and only,

daughter, Grace, as the only one without a shed. She loves art, she loves her own space to be free to make her art, and, more important, her mother said, "Get that mess out of my house!"

Instead, I have a deep desire – possibly passed down by my medieval Celtic ancestors – to build my princess a castle. ►



My wife's amazing custom-made sink

"It turned out to be the most wonderful creative space, and a great place for her to hide from me and the kids"

Wall framing up, including the 'bloody curve' — note the large rock on the right



But where?

That was an interesting question. The pot shed is basically built in our trees, and the mad scientist's lair is underneath the pot shed. There was no space left for the 'studio' without getting creative – and destructive.

My wife's shed is very close to our boundary, with a small garden between it and a boundary retaining wall. The garden was "not reaching its fullest potential", and the retaining wall was not adding value, but it was holding up the neighbour's lawn. I was nearly sure there would be enough space back there for an art studio if we were brave enough to start.

To maximise the floor area, the new studio would wrap around the pot shed, snuggle into the bank, and straddle a very large boulder. This approach gave us about eight square metres of floor area, but it made the floor plan a very interesting shape.

This area is the first thing anyone sees as they come up our driveway. For the sake of first impressions, the studio would have to look pretty special from the outside, too.

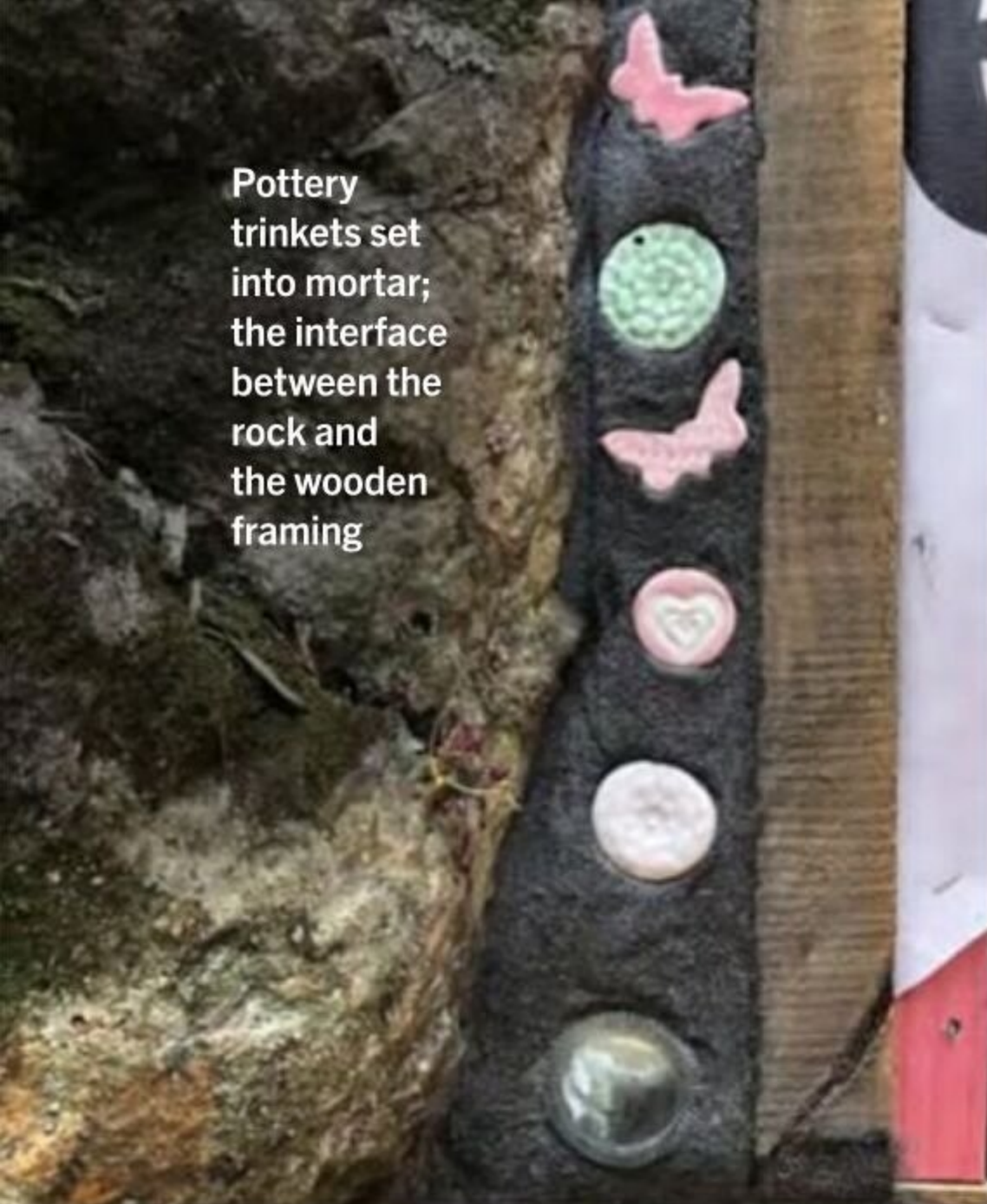
Grace on the digger, preparing the foundation



Grace helping with the roof beams



Floor laid, retaining wall partially built



Pottery trinkets set into mortar; the interface between the rock and the wooden framing



Cousins helping to screw down the roof



Nearly ready for the roof!

Design?

My wife wanted a basic design to keep the cost and build time down. We ignored her.

In theory, the studio construction is basic: ply on beams for the floor, standard 75x40mm framing, Glulam beams and ply for the roof, Trade Me deals for the doors and windows, and some ply with a pretty grain to line the walls. Really, a boring basic shed – until Grace and I decided to go all out with the design. There was potential to do something very different, and that opportunity could not be passed up.

Dad–daughter building conversations went like this:

“Hey, Grace, we could do a planted roof!”

“OK, Dad, but what if me and my friends want to sit on the roof? Can we do a seating area, too?”

“Sure; don’t tell your mum.”

“What about a firepit?”

“Sure; don’t tell your mum.”

“Can we have an internal water feature, with a Japanese contemplation garden?”

“Maybe; don’t tell your mum.”

Features such as a curved wall, an inside/outside boulder, a bottle wall, a grass roof, a rooftop patio, curved decks, built-in seating ...

Each of these items turned a basic weekend build into a long construction crusade of several months. It turns out that, when you make an extra effort on one feature, you feel you need to make an extra effort on the next section – thus, the architectural and financial snowball that is my princess’s castle.

Worth it, though, I reckon.

Digging in

After a brief consultation with the neighbours, who were fully on board with the new retaining wall, I decided to see how much of the messy garden I could dig out by hand. This very quickly turned into a trip to the local hire shop for a Kanga digger. What fun! The digger made short work of creating a huge mess, but we managed to clear out a reasonable area to make a start. ►

“My wife wanted a basic design to keep the cost and build time down. We ignored her”



Smoko time with Mum

“It turns out my son is a legend digger driver”

It turns out my son is a legend digger driver; I was giving the instructions while he deftly positioned the bucket at will. We were not so lucky when my wife had a go – better stick to pottery! Once the build area was cleared,

postholes were dug to form the new retaining wall. The retaining wall was rebuilt – stronger and taller – and became the rear wall of the shed. This was by far the quickest part of the build.

I concreted the ground beneath the shed, then used timber beams and ply to form a floor to cover my sub-par concreting skills.

Outside

Next came the walls, which are standard timber framing covered in plywood as a base cladding. Easy – in theory.

We decided to go with a rustic feel on the outside, with Hundertwasser, Seuss, and a touch of Tolkien as inspiration. The outer cladding is made from power-pole cross-beams, which are mostly an Australian hardwood of some variety. The beams are hard wearing and give an amazing, weathered look. I ripped them in half down the centre. This ruined a few saw blades but gave two planks that could be screwed directly



The ‘Castle’ blending into its surroundings



Grace at work on a masterpiece

onto the shed as cladding.

The effect makes the shed look as old as its medieval inspiration, and lets it blend nicely into the surrounding landscape. A nice touch is that it's not immediately obvious what the cladding is made from – the only giveaway is the bolt holes left by the insulators.

A turret would be nice

I wanted a Rapunzel-esque turret with a spiral internal staircase to the roof. However, common sense, my wife, and eventually I myself all agreed that a turret and staircase was not a good use of space. However, the turret did inspire me to build a curve into the studio wall – giving a great effect from the inside and the outside. It kind of gives a turret look to the 'castle', as I was hoping. Also, that 'bloody curve' – as it became known – means less driveway space is taken up than if it were a square corner.

We still had a big boulder I could not move, right on the edge of the floor plan, so the architectural design team decided to incorporate it as an

indoor-outdoor feature – the interface to the rock was dealt with by building a mortar-based bottle wall. I was dead set on using blue bottles in the wall – I don't know why; they are nearly impossible to find. Leftover ceramic cups and trinkets from my wife and daughter's pottery creations added to the mystical look of the bottle wall.

The interior

The inspiration for the interior design was even less pre-considered than the outside. However, we are pleased with the results. Kevin McCloud might call it "mid-century, French-farmhouse, shabby chic, with a hint of Art Deco about the edges". We simply refer to it as "black and white, with a big chandelier".

The walls and ceiling are whitewashed, and Grace and I chose a near-black vinyl floor covering. The black was carried on to the door frames and skirting – giving a simple but striking effect. The play of light walls and dark floor also helps to make the space feel bigger than it is. ►

"Also, that 'bloody curve' – as it became known"





Sanding the bench top, and sanding, then some more sanding

“I then spent hours with a belt sander to ensure the entire surface was smooth enough”

Some of the power-pole cross-beams turned out to be jarrah or purple heart. I put those aside and used them to build the benchtops. The planks were planed smooth, then edge-glued together to form a bench. I then spent hours with a belt sander to ensure the entire surface was smooth enough for Grace to create her masterpieces on.

To make a feature from a problem: dried flowers and marbles filled the holes where the insulators had been attached, held in place with glass-clear epoxy. A further coat of epoxy over the entire bench gave us a very hard and glossy finish.

Pièce de résistance

Another Trade Me find was the very oversized, black and chrome chandelier. It is just ridiculous – too blingy, too big, hangs too low, wife doesn’t like it. It is perfect!

The best and final piece, which completed the interior fit-out, is the sink

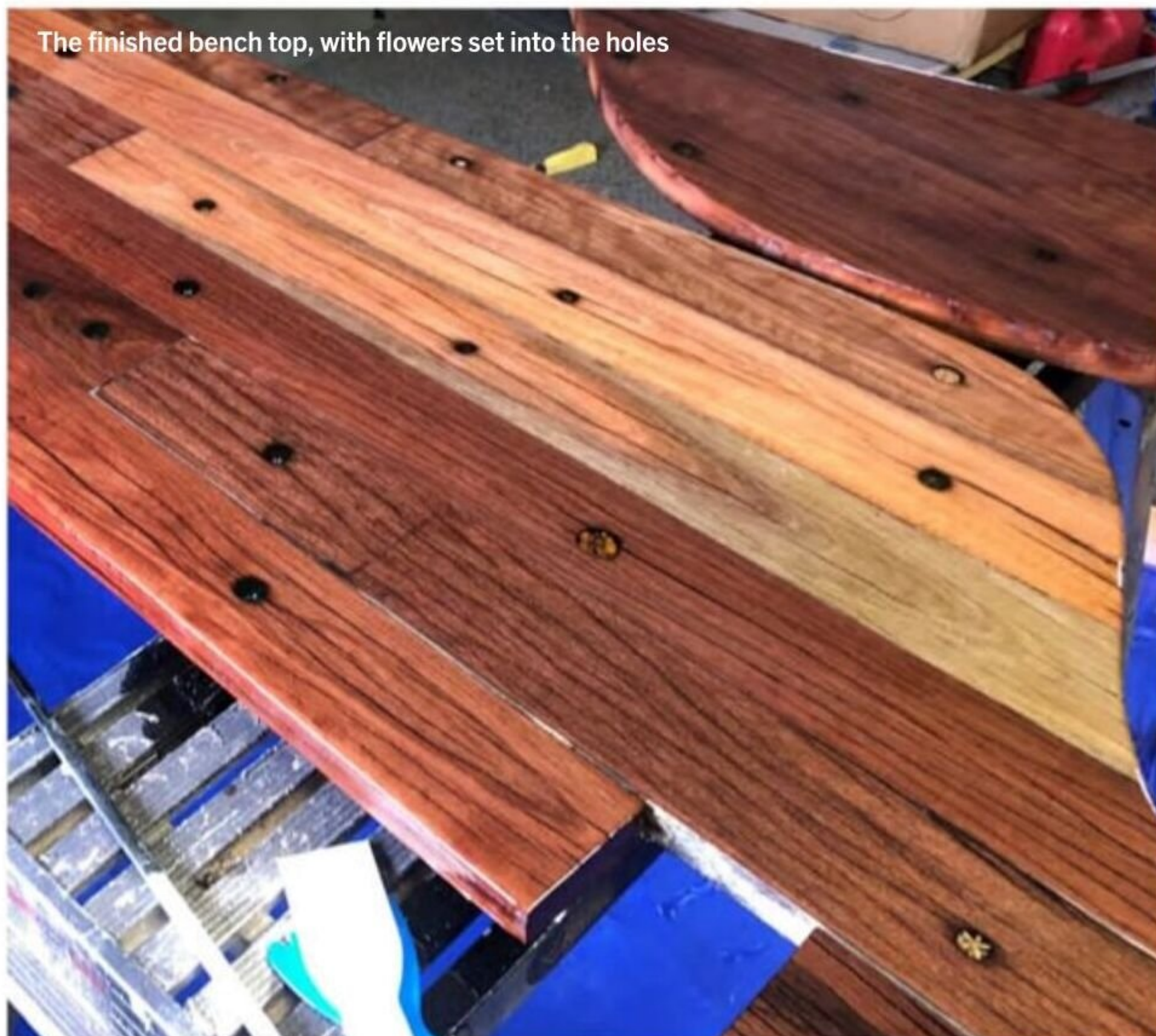
– yes, the sink. My wife lovingly spun, glazed, and fired the most beautiful sink. It sits nicely on a piece of jarrah benchtop, which nestles perfectly on the inside of the ‘bloody’ curved wall.

The garden/patio roof

I wanted a roof garden with grass etc. to make it look like a hobbit hole, while Grace wanted to have a roof patio to have parties with her friends. We reached a compromise.

The roof took a huge effort – mostly because it needed to function as a garden and patio area. I used heavy plywood as a base, then added a very thick layer of fibreglass to ensure it was waterproof. The roof is slightly sloped to allow water to drain.

The cladding was extended past the roofline, to form a handrail on the roof patio. A planter box was built along the front edge and planted with grasses – this gave the effect of a ‘planted roof’ when viewed from the front. ▶



The finished bench top, with flowers set into the holes



Firepit and ‘throne’



The decked area, for Dad
to sit with his coffee



The firepit being put to use – toasting marshmallows

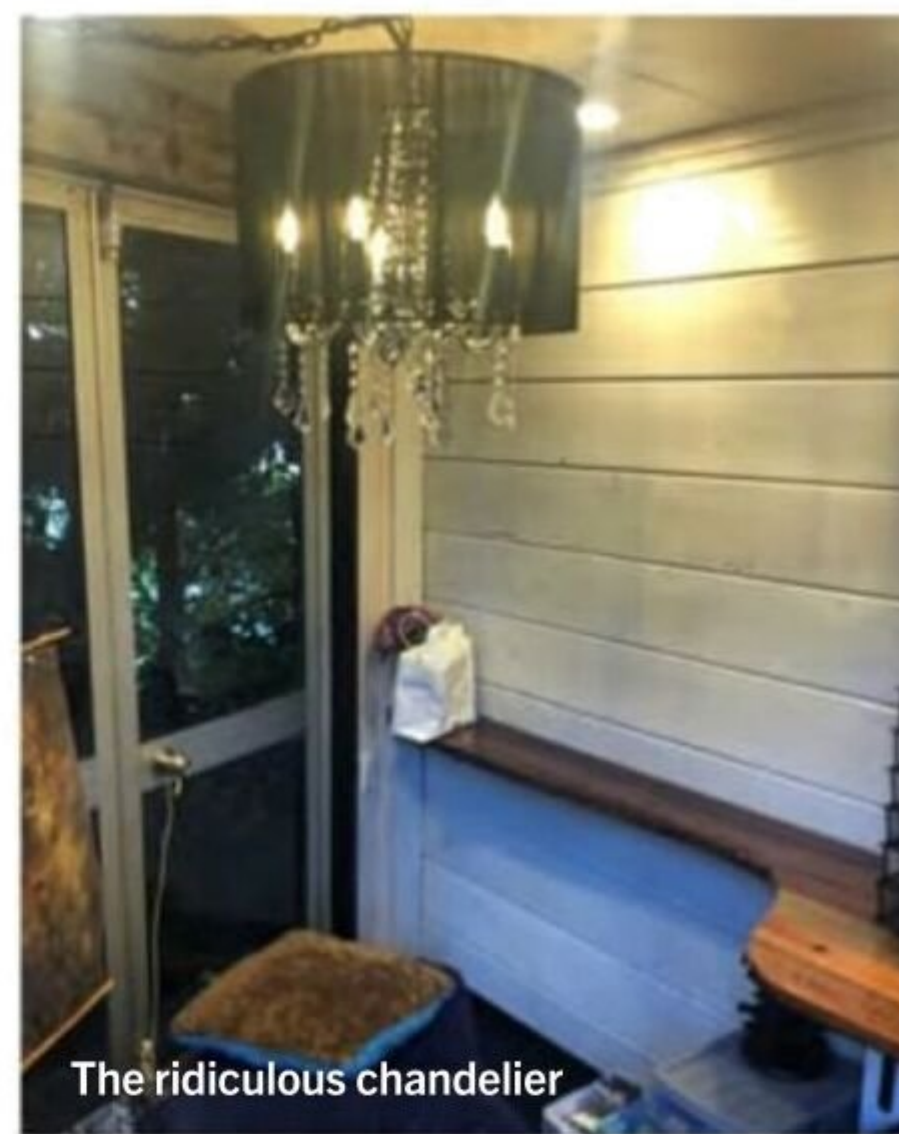
“The result is the most amazing princess throne – a real team effort, which was great because my enthusiasm for the project was flagging by then”

Meanwhile, a small, but deceptively complicated, deck area was constructed over half the remaining roof. The other half was covered in stones and provides the perfect place for the fire pit. Yes, despite the protests of my mother-in-law, we have a firepit on the roof!

The cutest little firepit

My mate Jamie was removing some superfluous equipment from his boat. As soon as I mentioned “firepit”, his face lit up as he realised he had the perfect opportunity to offload some junk: an old hot water heater from his boat – a bit like a miniature version of a domestic hot water cylinder. I cut the bottom section off this and welded it to a steel base. The result is the cutest little firepit, the perfect shape and size to suit the intimacy of the space.

The final piece of the rooftop puzzle was where to sit? By now my wife was on board with the all-out design



The ridiculous chandelier

aesthetic. So, she helped design an in-built seating area. Her seat design incorporated an odd angle, a curved transition, and a sloped seat back! It was very difficult to conceptualise and even harder to build!

The result is the most amazing princess throne – a real team effort, which was great because my enthusiasm for the project was flagging by then.

Another shed?

Would I build this again? Probably not.

Will I build a fourth shed? Almost definitely not. We all have our own separate but connected spaces, so, unless there is an unexpected surprise in the procreation department, one space each is all we need.

Am I glad we did it? Hell yeah! It’s a wonderful space for us all to enjoy. My wife has claimed the rooftop throne as her own on sunny days. We are looking forward to some nicer weather to make the most of the rooftop as a family. Also, it turns out that at night, with the fire going, it is a very romantic spot just for two.

The studio blends into its surroundings, but still manages to stand out. It’s the first thing that visitors notice – everyone wants to see if there are fairies or hobbits living inside it. It is a hugely satisfying feeling to see my daughter happy in her studio. It is a privilege as a parent to witness your children thriving in their chosen activities.

I’m not sure if the studio adds value to our property, but I am absolutely sure it adds value to all our lives. I would 100 per cent recommend that you build your queen, princes, and princesses their very own custom castles. 🏰

The advantages of Peanut Furniture Connectors

In the world of furniture manufacturing, every detail matters. A new product revolutionising cabinet and furniture construction is the Peanut Connector. Available from Jacks, these unassuming yet highly effective furniture connectors are set to become an essential tool in the arsenal of modern cabinetmakers. Peanut connectors offer a host of advantages that speed up and simplify the assembly process, reduce material costs, improve the overall quality of cabinetry, and deliver a more contemporary slim-line look. Let's explore these connectors and the numerous benefits they bring to the table.

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Advantages of Peanut Cabinet Connectors:

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For more information on Peanut Connectors see the-shed.nz, call Jacks on 0800 522 577, or email sales@jacks.co.nz.





THE RIGHT TO REPAIR

Repairability, reliability, and the push for a circular economy

Murray Grimwood





Recently, I read an article championing legal standards for product repairability. My recent 'Off the grid' ramblings had, coincidentally, included the repair and refurbishment of items; the article induced some further contemplation.

Heading on down that track, we find ourselves contemplating around-the-globe efforts to create – or extend – repairability standards; and a parallel push for the recirculation of materials, known as a circular economy. These are interesting trends, with implications for all things sheddie.

Some background

We have lived through an amazing era – and created some repercussions in the process. Materially, we have extracted,

consumed, and discarded – an almost entirely linear process. Competing products became ever more complex as they strove for market share via manufacturing efficiencies.

For instance: integrated-circuit manufacturing is apparently down to using UV (rather than ordinary) light to create wafers – but the products they comprise are increasingly not, by any stretch of the imagination, fixable. Nor – because the materials are so mixed and in such miniscule quantities – do they get recycled; it takes energy to do that, and we have chosen to use that energy to indulge ourselves rather than clean up behind us.

Product life

From a purely business point of view,

selling more, more often, seems better. That drives business attempts to monopolise all things: parts supply, rights to repair, accreditation, obsolescence (think: 3G, Windows 7, parts support). From a global-resource point of view, the process is a linear 'extract, consume, discard' one – clearly a temporary arrangement on a finite planet. To address the 'discard', we need to control the first two, and it is obvious how: by lengthening the lifetime of products – including being able to repair them – and by recycling them as much as possible.

Push back

That there will be push-back from manufacturers and retailers to proposed legislation is inevitable. Any rules that safeguard environmental bottom lines but incur compliance cost (farming lobby vs water quality, for instance) will incur push-back; it goes with the territory. The way to think about all such things is to ask whether, a couple of generations hence, we will be thanked for our choice.

There is also the question of warranty validity; can society force a manufacturer to back a product repaired by a non-approved repairer? With knock-off parts? And where will insurance figure in all of this? The counter-argument is that no repair should be so complex that those issues ... become issues! ►



“ Which is better: short-lived but easy to fix or long-lived but harder to fix?”

A third way?

I can remember – just – picking up a few spanners and a pair of pliers, changing the clutch plate on my Wolseley 18, then taking my girlfriend to the movies in it the same night. Heck, I remember dropping my better half off for a waitressing stint, changing the clutch on our Escort-powered Hino Contessa (a marriage made in heaven, accessibility wise) and picking her up in it at shift's end. We thought nothing of it, but I wouldn't be game to try for that time frame with the clutch on our current Corolla. Yet the Corolla has wheel bearings – front ones, at that – that have circulated, untended, for nearly 400,000km. Which is better: short-lived but easy to fix or long-lived but harder to fix? Or is there a no-brainer third way: long-lived and easy to fix? I suspect that might involve de-complexifying.

Repair Cafés

A practical ground-up action has been the establishment of Repair Cafés, beginning around 2009 in the Netherlands and the USA. There are now more than 2500 globally. <https://www.repaircafe.org/en/about/>

Repair Cafés have house rules (see side panel on page 82) and a useful website – it lists 12 cafés in Auckland, for instance. The first Repair Café in New Zealand was run by the Lyttelton Harbour Timebank at Diamond Harbour School in 2013. There are now more than 50 in this country, and Repair Café NZ claims that 451 volunteers have spent 12,125 hours at 233 events; no minor effort. Bikes are the most

common item repaired. Being involved would be a natural fit for many sheddies, and I would have thought there was a compatibility with Menzsheds, too.

Legislation

Legislation is coming ... slowly.

Manufacturers will delay it all they can, but the outcome is inevitable; we will see products that are designed to last longer, be more easily repairable, and be more amenable to recycling.

Inevitably, they will cost more upfront, the purchase price reflecting the increased product support and eventual disposal cost. Personally, I cannot see how monopolisation of repair rights (agency rights) can continue in its present form; currently, society can afford neither the premium nor the disposal – something's gotta give. Here's what CNN Business said about a recent

farmer / John Deere agreement:

“The agreement marks a major victory for farmer and consumer advocacy groups, who have complained for years about the repair limitations Deere has imposed on its products and technology, from software locks to requirements to use official dealers for repairs. The restrictions have inspired multiple lawsuits against the company and created a high-profile public relations headache in which farmers have accused Deere of interfering with their ability to plant and harvest crops on a timely basis.”

It is an interesting development, but John Deere has sidestepped legislation by settling out of the court, so to speak. One senses a foot hard on the (tractor) brake.

<https://www.deere.co.nz/en/news/all-news/conversation-on-right-to-repair/>





Also in the legislation mix is the question of whether manufacturers have the right to data obtained via your lifestyle, vehicle use, etc. Almost a separate topic on its own, nonetheless data capture feeds back into which products are offered – a self-perpetuating consume/discard incentive.

French repairability index

In 2019, the French government adopted a law regulating the mandatory display of clear information for consumers about the repairability of electrical and electronic equipment. The objective is to encourage consumers to choose more repairable products and manufacturers to improve the repairability of their products. It applies to five categories sold in France after 1 January 2021: smartphones, laptops, televisions, washing machines, and lawn-mowers. New Zealand could do worse, as a starting point, than copy France.

Plug and play

Surface-mounted electronics are a classic case of manufacturing ease overriding repair and recycling. It is unlikely that we will see a reversion to old-school componentry, but plug-and-play modules, at least, make sense. Taken to an entirely logical conclusion, one could envisage an evolving rolling maul of modular options for a base model, or chassis, and including specialist-application modules and upgrade ones. That would require more standardisation between manufacturers and between models (the EU is already legislating for plug standards) and maybe a tad less fashion-driven obsolescence.

Circularising the economy

“The essential concept at the heart of the circular economy is to ‘ensure we can unmake everything we make’” – NZ Ministry for the Environment.

Ellen MacArthur is a tiny sailor

“The essential concept at the heart of the circular economy is to ‘ensure we can unmake everything we make’”

with a big heart; provenly brave, provenly resourceful, provenly capable of strategic thinking. Having circled the globe at record pace, she turned her thoughts to addressing its ills, and established the Ellen MacArthur Foundation: <https://www.ellenmacarthurfoundation.org/> ►



The foundation's preamble reads: "Through design, we can eliminate waste and pollution, circulate products and materials, and regenerate nature, creating an economy that benefits people, business and the natural world."

The instinct is impeccable but the practicalities are daunting; globally, less than 20 per cent of waste is recycled, and much of that is to a 'lesser quality than before' standard. In some ways, the foundation's goal is at odds with repairability; it talks about getting stuff back into the stream at the front end, whereas repairability is about keeping stuff in mid-stream, as long as possible.

Symbiosis needed

In reality, we need a symbiosis of the two: 'as near as possible' full recycling and 'as long as possible' product life. I'd add a third: both approaches need to be as energy frugal as possible – because we won't have as much energy as we currently have, yet we're already falling 80 per cent short in recycling, and well short in other needed actions, too, such as addressing the climate forcing we're responsible for.

What can we do?

Top of my list, unsurprisingly, is energy awareness. There is no point in driving 100km in an ICE vehicle to drop off a dead computer, it's a combined negative. Next: repairability trumps circularity.

It is better to have products that don't require junking in the first place than to slicken up the junking process.

That goes with thinking resiliently: what happens if we can't source parts? We should choose things that we know we can fix, or that we know can be fixed locally. We can acquire spares, ahead of need. We can teach repair skills, teaching product adaption as an aside. (It is amazing how many helpful YouTube clips there are; somebody somewhere has restored/repaired/adapted just about everything.) And of course, we can find our nearest Repair Café and offer our services.

May you live in interesting times

It is an interesting time to be alive. I look at my 'grandies' (preschoolers all) and wonder what they will see and do.

One already has a clear penchant for wheels, cogs, and levers – making him the fourth generation of an apple that hasn't fallen far from that tree. Will he find a vocation (in the social rather than the monetary sense) repairing and repurposing? Will he be fixing old kitchen appliances, or turning fuel-stranded SUVs into windmills? What I'm sure of is that the more I pass on to him by way of skills and knowledge (before I can't) the better. The same is true of Repair Café exchanges where the fixer teaches the owner – and, of course, any of us can pass it forward anytime. 🛠️

Repair Café house rules

www.repaircafeaotearoa.co.nz/

- The work carried out in the Repair Café is performed free of charge on a voluntary basis by the repair experts at hand.
- Visitors carry out the repairs themselves whenever possible, but repair experts on site can help if necessary.
- The fact that the repairs are being performed by unpaid volunteers reflects the allocation of risks and limitation of liability. Neither the organisers of the Repair Café nor the repair experts are liable for any loss that may result from advice or instructions concerning repairs, for the loss of items handed over for repair, for indirect or consequential loss or for any other kind of loss resulting from work performed in the Repair Café. The limitations set forth in these house rules shall not apply to claims declared justified on the basis of liability arising by virtue of applicable consumer protection legislation which cannot be lawfully superseded.
- A voluntary donation is greatly appreciated.
- Any use of new materials such as leads, plugs, fuses, ready-made knee bends or applications will be paid for separately.
- Visitors offering broken items for repair do so at their own risk.
- Experts making repairs offer no guarantee for the repairs carried out with their help and are not liable if objects that are repaired in the Repair Café turn out not to work properly at home.
- Repair experts are entitled to refuse to repair certain objects.
- Repair experts are not obliged to reassemble disassembled appliances that cannot be repaired.
- Visitors to Repair Café are solely responsible for the tidy removal of broken objects that could not be repaired.
- To cut down on unnecessary waiting times during busy periods, a maximum of one broken item per person will be examined. The visitor will join the back of the queue if there is a second item for repair.

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RELIVING A PROJECT FROM MY YOUTH

Will the children of today ever enjoy the satisfaction of making something themselves?

By Coen Smit
Photographs: Coen Smit

When I was a kid, we made our own toys from the scraps, bits, and pieces that we could scrounge in the neighbourhood. It was also an era when toys were not politically correct: girls played with dolls, prams, and dresses while boys had toy guns, knives, cubbies, and catapults.

As an avid consumer of superhero comics, I also had a collection of wooden space ray guns and the like. However, my most cherished toys – because they did something – were the knives and catapults I made from scavenged bits and pieces.

Nothing's impossible

The recent index of New Zealand's knife-makers in *The Shed* (March/April 2023, issue 107) rekindled my memories of those youthful times when I was an eight year old wandering around the small country town where we lived, like an Australian version of Huckleberry Finn, all the while carrying my little knife made from an old steel ruler and my catapult, with which I could take on the world. Ridiculous, I know!

However, as children we often lived in a world of our own creation and imagination. Today, imagination comes packaged and delivered for the younger generation. Rose-coloured glasses now only add to the appeal of those long-gone days.



“my most cherished toys – because they did something – were the knives and catapults I made from scavenged bits and pieces”

It's time

Now, in my retirement, it is nice to revisit those bucolic times and build another catapult for myself, even if it's never destined to be fired in anger.

Years of building a host of different things will hopefully improve my skills in building the new one, although I want to retain the simplicity of the originals. The advent of spear-gun rubber tubing has lifted the construction of catapults to a new level. However, by the time it reached me I had moved on and was busy building spear-guns instead. Today, all sorts of sophisticated versions can be found on the Internet – ones that fire arrows, have sights and/or hand guards – but these were not what I grew up with and don't arouse my interest. I am no longer the eight-year-old hunter I was then.

Simple parts

The parts required for the old-fashioned catapult were simple: a stout forked tree branch, some rubber, twine, and a patch of leather. The rubber often came from a discarded inner tube (preferably from a car, as the rubber had better elasticity than a push-bike tube) and the leather patch from an old belt, shoe, or whatever came to hand.

To do this little adventure the justice it deserved, I used only the tools I had available as a child: a saw, a knife,



The tree fork selected for the catapult



The catapult fork cleaned and notched for the rubber band

“It is important that the two branches of the fork are roughly the same diameter”

scissors, a fretsaw, and sandpaper.

On a recent walk in a local timber plantation, I came across a young, fallen eucalypt that yielded two potentially suitable forked branches. It is important that the two branches of the fork are roughly the same diameter and the angle between them is not too wide. Of course, it is possible to build a fork from something like construction ply and get exactly the shape, size, and angle needed but it just would not be the same as sourcing it from the bush. (A bit like eating farmed trout as opposed to wild-caught trout, I suppose.)

Prepping the fork

Stripping off the bark revealed any flaws that might have been present and smoothed the timber for holding the

catapult. The next step required me to recut the fork to the finished size of the catapult. The base of the forks needed to be long enough to hold the catapult without the top of my hand fouling the bottom end of the fork itself.

I had been too clever for myself once and made a catapult that had only a small stock below the fork. Although it looked good, I soon learned that it was a lottery as to whether the pebbles would launch themselves into the scenery or into the thumb and back of my hand.

The height of each fork needed to be sufficient to allow a small missile to pass through without the whole contraption becoming overly large. Naturally, I did have to allow for my hands having grown since I was eight years old, as well as the increased pulling power I can apply as an adult. This catapult is therefore a slightly larger and a more robust version of the earlier incarnations.

Fitting the rubber

Once the forks were cut to their final size, I used a fretsaw and my knife to cut an indentation at the upper end of each fork to secure the strips of rubber. Stretching and tying off the strips with twine prevents them from slipping off the forks when the catapult is in use. Again, experience soon taught me that failure to do this properly would result



The completed catapult

in a strip of stretched rubber slapping me in the face at some point. It brings to mind the old adage, “You learn by doing, failing, and doing it again!”

Whilst I was amusing myself with this simple little project, I reflected on how much times have changed and the world has moved on. When I was a youngster, if you wanted something like this catapult, your first thought was: “How can I make it?” It never occurred to us to go and buy one! Being inventive was a lesson learned early in life. It has been an approach that has stayed with me all my life; I still have an aversion to buying things I can make.

What next?

I wonder what it's like for the youth of today with an electronic society barraging them with entertainment day and night. Will any of them want to build themselves something that may require some effort and resilience when the project doesn't go as planned? Or is the gulf between the electronic world and what a youngster could make themselves, and that is relevant to their world, just too great to bridge? What is in store for our society when the last of the men and women of the 'makers' eras depart? 🏠



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Chris in his workshop with the two power tool dragsters



CHRIS GORDON KEEPS BUSY

PART 1

Diverse projects, created with the help of the circular economy

By Ritchie Wilson

Photographs: Ritchie Wilson and Chris Gordon

Chris's job involves designing electrical gear for power-network companies. Most of New Zealand's electricity generating companies purchase gear from the company for which he works. In his spare time, he makes stuff in his very well equipped workshop. He has a lathe and a large milling machine, a gas set, and a homemade tube bender.

Chris says that his projects tend to come together easily. Components turn up at opportune times; things tend to fit together without a lot of modifications.

He used to campaign a MotoGP racing motorcycle very successfully, his bike competing in the 1999 Australian 125GP, before realising that he was no longer prepared to risk the lives of the riders he employed to ride these powerful machines. These days, the cars and bikes he works on travel a little more slowly. For example, his penny farthing or 'ordinary' bicycle gets along quite sedately compared to his slightly older V8-engined two-wheeler.

Inspiration is everywhere

Chris can pinpoint exactly where the idea for some of his projects came from.

He was driving through Christchurch one afternoon when he saw, at a distance, a person riding a seatless tricycle, their whole weight supported by the pedals. Fascinated, he immediately decided he would build his own version.

He used components sourced from used bicycles and children's scooters, bought at the Christchurch City Council's EcoShop. This is where items salvaged from the city's dump are sold, and where Chris prefers to buy the donor items for his projects. They are usually remarkably cheap. His sister, who works in a bike shop, tried to discourage him from cutting up one children's bicycle – which cost less than \$20 – on the basis that it had had a ticket price of \$400 when new.

Traditional methods

Chris joined the frame pieces together with bronze brazing rod, using his oxyacetylene set. He says that his eyesight isn't good enough for TIG welding – the method used to make bicycles commercially these days – and that brazing is less stressful.

He also admires old designs and methods: brazing is the way bicycles were put together in the 1800s and for most of the last century.

The seatless tricycle looks intriguing;



“The Christchurch City Council's EcoShop ... where Chris prefers to buy the donor items for his projects”

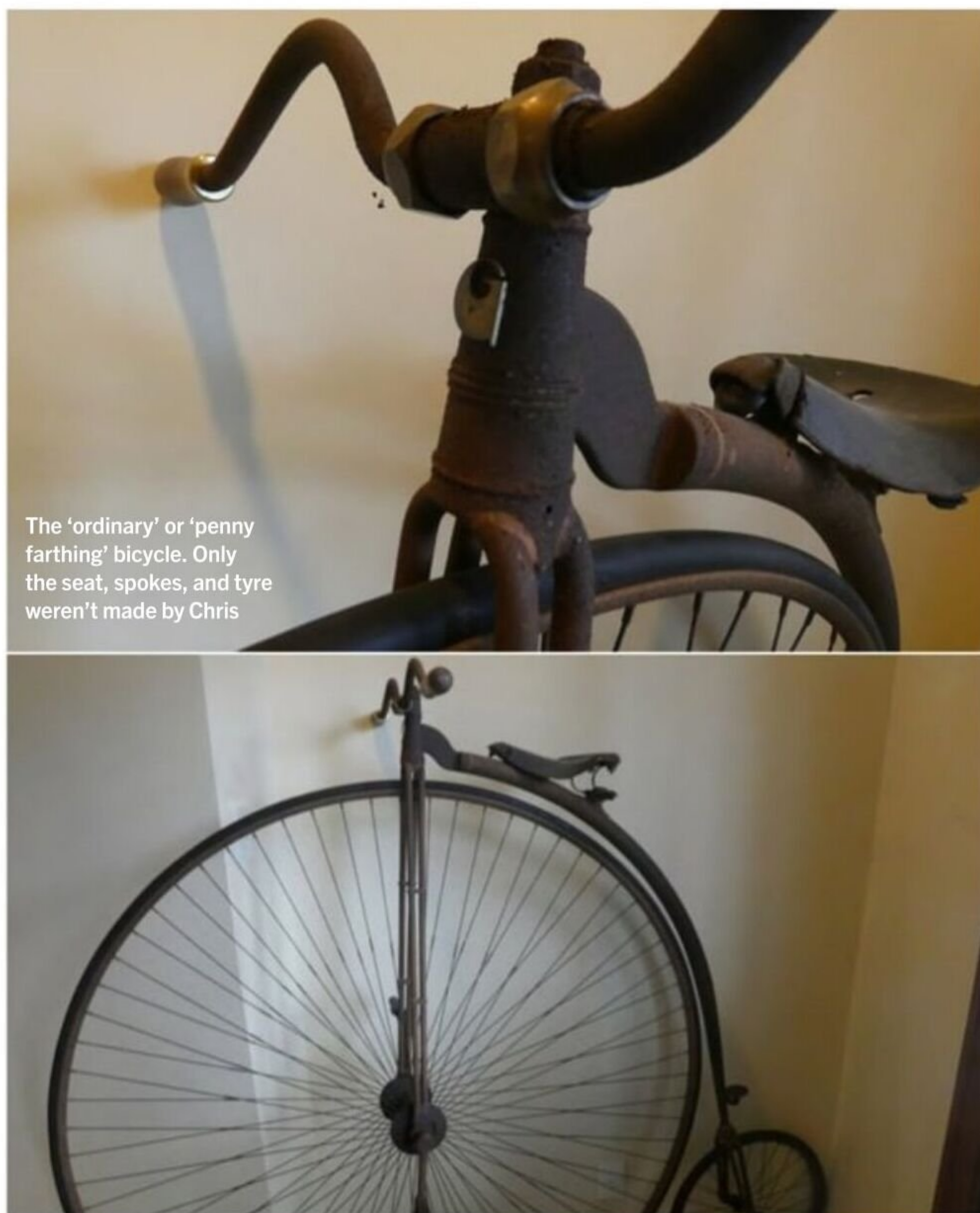
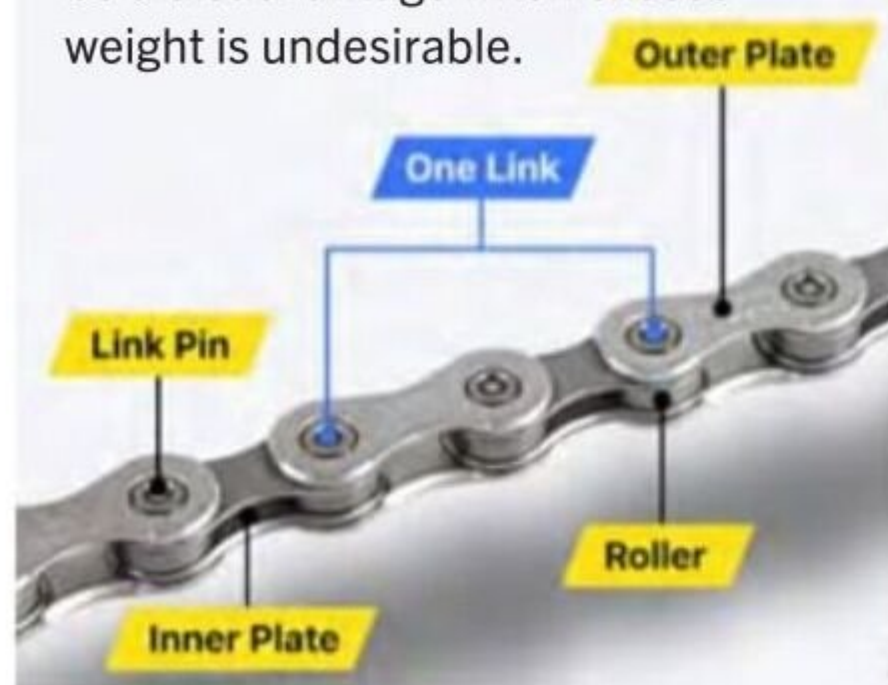
Bicycle chain

A bicycle chain has rollers that rotate around pins that are an interference fit in the chain's side plates, which have two holes punched in them. The idea is that the rollers roll over the teeth of a sprocket, rather than sliding along them, greatly reducing the friction of, and the wear on, the chain/sprocket system. The efficiency of a chain drive is excellent, which is why it is used in practically all bicycles. The possible alternatives, such as shaft drive (as on Moto Guzzi motorcycles) or toothed rubber belt (as on Harley-Davidson motorcycles) have been tried on bicycles but haven't caught on.

The pins around which the rollers rotate also join the plates together to form the chain. A plate can be either inside or outside the next plate. The combination of an inner plate and an outer plate on each side and two roller/pin combinations forms the smallest repeating unit of an ordinary bicycle chain, called a link.

If an ordinary chain is to be shortened, the smallest reduction possible is one link, which is usually about 24mm long – not an insignificant distance – so bicycles have a fairly wide range of adjustment of the back wheel position so that the chain's best tension can be obtained.

Half link chain is similar but has the advantage that the smallest amount that it can be reduced is half a link, or about 12mm. The side plates in half link chain are bent so that one end is an outer and the other end, with the pin and roller, is an inner. The outer end fits over the inner end of the next half link in the chain, and the inner end's pin holds the two half links together. The side plates of a half link chain have to be strong enough to resist being straightened by the tension forces acting on them, and so are heavier than those of an ordinary roller chain; this can be a disadvantage when excess weight is undesirable.



The 'ordinary' or 'penny farthing' bicycle. Only the seat, spokes, and tyre weren't made by Chris

its finish is admirable, but it is extremely difficult to ride. It is steered by turning the front wheel, as in a traditional trike, which seems to require super-strong arm muscles. Chris initially thought that if the dampening of the steering was increased the bike would be more controllable. The very large turning circle was also a bit disappointing. He has since seen an advertisement for a commercially produced seatless trike that has a fixed front wheel and steers by the rider leaning to one side or the other. Skateboard-type trucks on each side of the back turn as the trike tilts, steering it. It is difficult to visualise – the project is a work in progress.

Power-tool racers

The article in issue 109 of *The Shed* by the magazine's electronics guru, Enrico Miglino, on the Belgian Makers Fair was the catalyst for Chris to make two chorded power-tool drag racers.

These are four-wheeled miniature

racers which, the rules state, must be powered by a motor originally from a hand-held, chorded power tool, such as a drill or an electric chainsaw. The racers run in wooden channels 30cm wide and 30m long. Chris was shown the article by another sheddie, and three weeks later had completed two racers. Again, the components were sourced from the EcoShop.

Chris originally intended to use angle grinders, as most of the racers in Enrico's photos did, but it turns out that angle grinders are popular items at the EcoShop – there were none for sale. What they did have was 14 chorded skill saws, so he bought two identical Black and Decker saws for, he thinks, \$20. He also purchased a number of 7-inch circular-saw blades and a couple of pairs of inline roller skates, which provided the front wheels of the racers. The rest of the materials came from his own workshop. It turned out that everything that was needed was on hand. ►

“Two pairs of 7-inch circular-saw blades, sandwiched together, were used as the driving wheels because of their ‘nasty’ appearance”

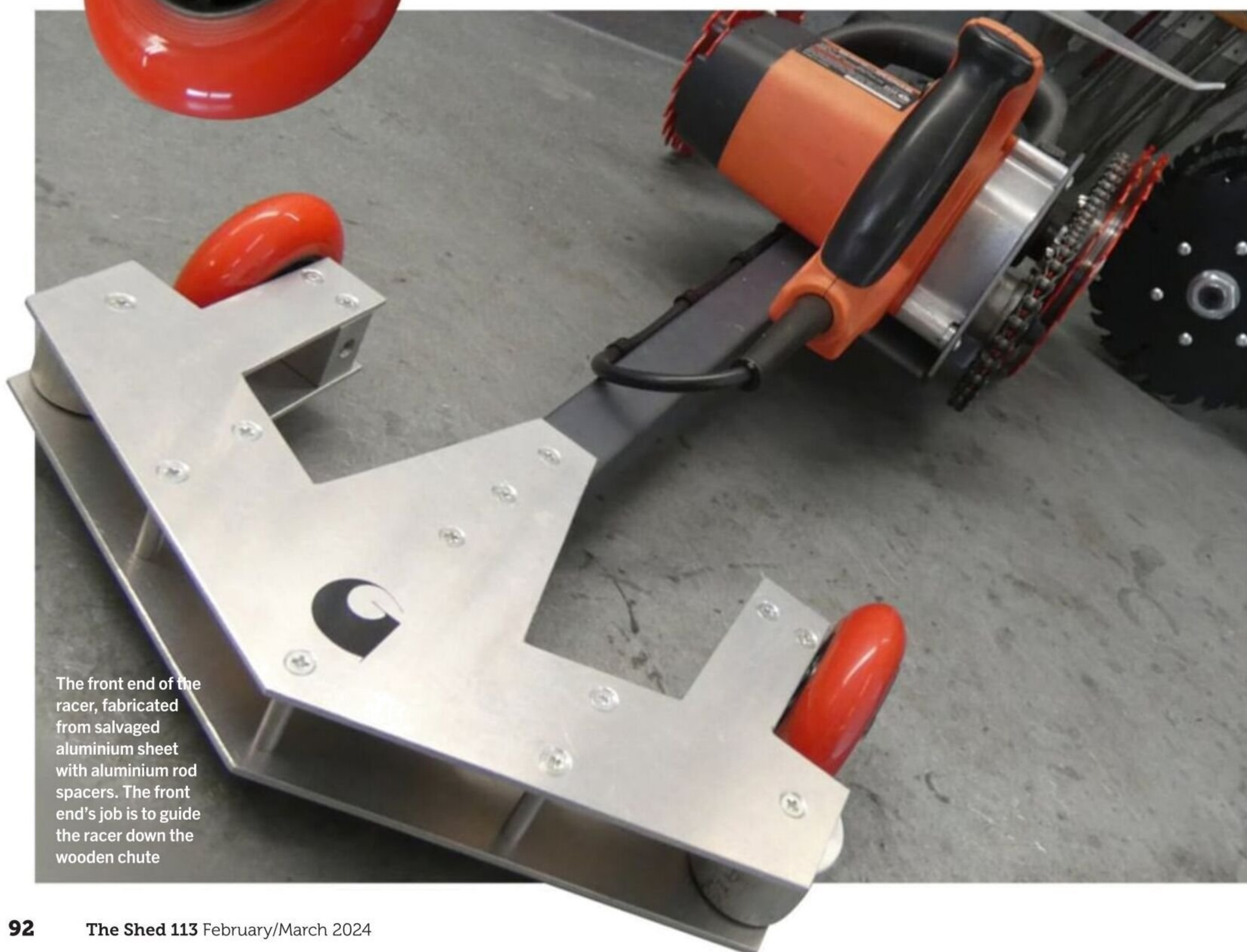
Nasty is good

Chris started with the donor saws and a couple of lengths of 20mm-diameter high-tensile threaded rod. Two pairs of 7-inch circular-saw blades, sandwiched together, were used as the driving wheels because of their “nasty” appearance. The blades are joined by six equally spaced nuts and bolts through holes accurately drilled using the milling machine and its digital readout;

3mm-thick aluminium washers hold the two blades apart. Chris made these from scrap aluminium sheet, using a hole saw and a drill. This scrap aluminium sheet – waste from some manufacturing process – was also used for other parts of the racers. The sandwich of blade-washer-blades was firmly attached to each end of the high-tensile threaded rod with nuts that had been narrowed on Chris’s lathe.

A sprocket from a child’s bike is fixed to the rod by narrowed nuts. Chris found that the caged ball bearings he had on hand had an internal diameter of 20mm, so these were also put to good use. Their outer diameter was 47mm, so, using his lathe, Chris opened the ends of the heavy walled steel tube, which houses the two bearings, out to 47mm and a depth equal to the width of the bearings. The tube was also from the scrap bin.

The front wheels are salvaged from inline skates



The front end of the racer, fabricated from salvaged aluminium sheet with aluminium rod spacers. The front end’s job is to guide the racer down the wooden chute

The two racers. The wings above the rear axle are mainly decorative



A back axle made from high-tensile threaded rod

Back axle done

This then is the back axle: the tube with bearings in housings at each of its ends, a saw blade sandwich at one end and a sprocket and the second saw blade pair at the other, the threaded rod and narrowed nuts – with appropriate, fabricated, aluminium washers – connecting the whole thing.

The back axle is connected to the front wheels by a 30x30mm square tube spine, which was brazed to the heavy tube.

The square tube has an interesting origin. It arrived as part of the packaging of a small two-seater city car that Chris had custom-made in China. Truly!

The Black and Decker saw is bolted to the spine.

The front axle is made from a sandwich of shaped pieces of the 3mm aluminium sheet, held apart by aluminium blocks and lengths of narrow aluminium tube fastened by countersunk screws and nuts. ►

Why Harley-Davidson riders wear black clothes

Before the back wheels of Harley-Davidson motorcycles were driven with toothed rubber belts, roller chains were used. Unlike the rubber belts, the chains had to be lubricated in order to keep wear on the chains and the associated sprockets to a minimum. Some of this black lubricant would be thrown off the chain and end up on the rider's clothes. Black clothes didn't show this grime as much as other colours, so black was favoured by motorcyclists. The puzzle is why riders of Harley-Davidsons continue to wear black, long after the reason for their doing so has disappeared.





The EcoShop sourced components for the power tool racers: saws, saw blades, roller-blade wheels and bicycle sprockets

“Perhaps a nationwide championship could be instituted?”

The 80mm front wheels, formerly on inline skates, are held on 8mm bolts, threaded into the aluminium blocks, with 13mm outer diameter bushes stopping the wheels from being crushed. On the very edge of the front axle, aluminium discs, which are a loose fit on the screws that hold them in place, will rotate and stop the racer from scraping the walls of the racing channel.

Swapping chains

The saw’s blade has been replaced with another salvaged bicycle sprocket and connected to the back axle’s sprocket with roller chain.

Due to a small error in calculating the length of chain needed, Chris had to change from ordinary chain to half link chain, to give the chain its proper tension. The (possibly purely decorative) wing is, perhaps predictably, made from the scrap aluminium sheet.

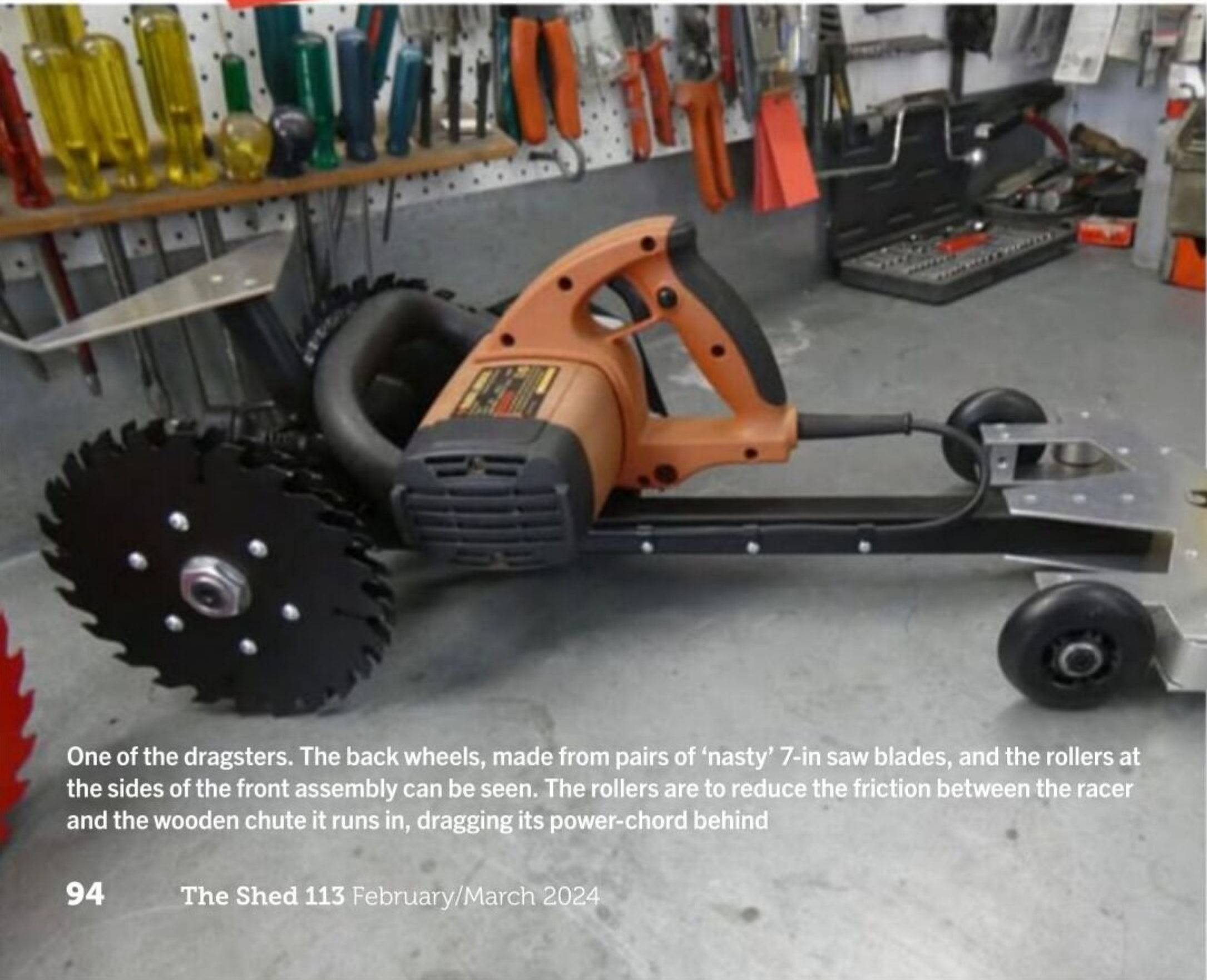
The overall appearance of the racers is of a classic dragster ‘rail’, similar to the top eliminator successfully campaigned by Chris’s late cousin, Ron Collett.

In his teens, Chris was part of Ron’s crew.

Now that the two racers are made, the next challenge is where to race them. Chris could make a pair of wooden race channels in his own backyard, but he would prefer some local organisation to construct some and make them available to all comers.

Perhaps a nationwide championship could be instituted?

In part 2 of “Chris Gordon keeps busy” – The Shed, April/May 2024, issue 114 – Chris makes a pair of V-twin motorcycle engines from scratch. 🛠️



One of the dragsters. The back wheels, made from pairs of ‘nasty’ 7-in saw blades, and the rollers at the sides of the front assembly can be seen. The rollers are to reduce the friction between the racer and the wooden chute it runs in, dragging its power-chord behind

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NEW!



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FUN WITH FERRO-CEMENT

Sheddies overcome diverse challenges when they decide to build a shed themselves – but how often do they have to ensure the shed is bear proof!

*By Bob Van Putten
Photographs: Bob Van Putten*

Do you need a bullet-proof shed? We did – and this is how we built one.

It all started when we said goodbye to city life and homesteaded up in the hills.

For a year and a half we lived in an 18-foot (5.5m) travel trailer while building a straw-bale cottage. There wasn't much space inside, so all the overflow went into an old metal garden shed someone had given us. Inside it we had a rod to hang clothes on, shelves for dry goods, stacks of five-gallon pails containing bulk foods, chests of tools, and our trusty chainsaw.

Right from the start, we began having problems with that shed. The first winter we had three metres of snow, which almost flattened it. I had to shore it up inside and keep the snow

shovelled off. The sheet-metal walls were covered with frost inside, and ran with water during any thaw. Critters of all sorts kept getting in and messing about with our supplies. Once, a bear ripped the padlocked door right off!

Eventually

When we finished our cottage, we poured a little concrete pad on which to set the garden shed, moved it to its new location, and kept right on using it for the usual overflow.

We still didn't like it much, and nine years down the road we got around to replacing it. As we looked back on our experience with the old metal shed, we wanted a new shed that had none of its failings; we wanted it stout, zero maintenance, critter proof, fireproof, and able to handle trees falling on it,

any amount of snow, and perhaps the occasional marauding bear.

A building technique called ferro-cement seemed to fit the bill. This is basically a thin shell of cement embedded in a wire frame. Cement is very strong in compression, but is brittle and has no strength in tension. A thin steel rod or wire is very strong in tension, but weak in compression and will bend. By combining these two materials, we get something with the strengths of both. Steel reinforced concrete isn't new, and I'm sure we're all familiar with its use in massive monolithic pours for foundations and large buildings. The difference with ferro-cement is that it employs a light, free-standing wire framework upon which a thin layer of cement is applied, usually by hand.



Eureka!



Shoring up the interior

Stock panels

My contribution to the art of ferro-cement building is the use of inexpensive 16-foot (@ 5m) stock panels for the framework. I'm sure most rural dwellers will know what these panels are and how handy they are for fences. Ever since I first transported a few of these home-bowed-up sheets in the back of my pickup, I have been fascinated by their potential as a building material. The steel is strong and springy – easily bowed into useful shapes. Barrel vaults! Domes! Steel-framed yurts! Covered wagons! I simply had to try it out.

The new shed took the form of a tapered half-barrel vault about 2.5m wide and a little over 3m long, built over

the same concrete pad the metal shed had sat on and set against our mortared-cordwood firewood shed. The better part of three cattle panels were used to frame it up. I dug a trench around the sides, about 300mm deep and wide.

The panels were cut to length with bolt cutters. One end was shoved down into the trench; the other end was nailed to the woodshed. I'd intended to weld the panels together but simply wired them instead because I couldn't get the welder I'd borrowed started! I found it was best to clamp the panels together tightly with vise-grip pliers, then wire up that joint good and tight. The trench was then filled with concrete to lock the panels in place and serve as a foundation. ►

“The trench was then filled with concrete to lock the panels in place”



Wiring the stock panels together



The completed stock-panel frame

The shed in winter



Ties everywhere! Of course, the long tails were cut off before plastering

Door frame issue

The doorway presented a problem. When the cattle panels were nailed to it, the tension pulled the doorway out of shape. The first one I made was framed up out of 4x2s and didn't work.

The next was framed up out of 6x2s, and still didn't work. Finally, I set two cedar posts in concrete to frame the doorway, and that worked fine.

Next, the steel framework needed to be covered with something you could actually plaster with cement. This is where experimentation came in. I made a series of tests using small sections of stock panel covered with various types of mesh. My first try was with coarse burlap cloth, because I'd read on the internet that someone had made a water tank that way. For the life of me, I couldn't get burlap to work. I even tried soaking the material first in a slurry of Portland cement and water, then stretching it on the frame. No good.

Next, I experimented with several layers of chicken wire over the panel frame. This might have worked, but I still dropped more cement on the ground than I was happy with. On the internet, I even found references to plastering a single layer of chicken wire stretched between posts, but I sure couldn't come close to replicating that.

Using plastering lath

Plastering vertical surfaces isn't too bad, but when trying to plaster flat surfaces, such as the top of our shed, most of the

material would drop right on through. I eventually resorted to using plastering lath on the inside of the stock panels and one layer of chicken wire on the outside.

This lath is a very light gauge galvanised expanded steel. It is ideal for holding plaster, but costs substantially more than chicken wire. Remember that the cattle panels and at least one layer of chicken wire must be embedded solidly with cement for strength. This means you can't simply drape a dense mesh of some sort over the cattle panel framework; the dense mesh needs to be solidly attached to the inside surface.

We discovered that the job of tying the chicken wire down and the lath up with short bits of wire was a real chore.

A huge number of ties are needed to prevent everything from sagging, and you're always getting poked with sharp bits of wire.

Light bulb moment

My wife had the wonderful idea of using plastic zip ties instead of bits of wire. Once we started doing this, the chore went much faster. So this handy tip is her contribution to the science and art of ferro-cement. Tying up the top portions of the framework was difficult because we couldn't walk on top of the frame, so we resorted to various acrobatic hanging-off-ladder manoeuvres.

I have no idea how one would accomplish this with a barrel vault or dome, unless the framework was



made stout enough to climb on. To attach shelves inside the finished shed, pressure-treated 4x2s were stoutly wired to the stock panel framework from the inside.

After much research, I decided on a mix of one part Portland cement to three parts sand, with as little water as possible. This seemed to be as close as it gets to a 'standard' ferro-cement mixture. Why not add lime and make it a standard stucco mixture?

Lime is added to mortar and stucco mixtures as a plasticiser to increase the workability. It also increases the vapour permeability somewhat, and that may be why it doesn't seem to be commonly used in ferro-cement work. In hindsight, I think I should have added lime to the first layer. It would have made plastering the framework easier, especially the roof, and less cement would have fallen through the mesh and wound up wasted on the ground.

Gypsum

Gypsum is a soft, naturally occurring mineral: hydrous calcium sulphate. When it is heated, most of the water is driven off. The entire process of mining and refining gypsum takes about one third of the energy needed to make cement, so it's usually pretty cheap. It's easy to use, safe, and non-toxic.

One hundred years ago, gypsum was widely used over lath for interior walls; these days, it is mostly used for manufacturing drywall boards. When mixed with water, it rapidly reverts to its crystalline form, and gypsum plaster has additives to delay the rate at which it hardens.

A batch of fresh gypsum plaster should take an hour to harden, giving you plenty of time to work with it. The trouble is that powdered plaster will absorb moisture from the atmosphere in storage, so you must always be certain the stuff you buy is fresh and has been properly stored.

Once, when plastering our cottage, I mixed up a 100kg batch and it hardened so fast I barely got my hoe out before it solidified! I had to chop up the mixing trough, throw the lumps away, and make a new one.



The family power into it

I thought the structure would benefit from having the first coat applied all in one day, to avoid cold joints between batches of cement, so I rounded up some help. I had three adults and two kids plastering while I shovelled and mixed cement.

The adults on the crew complained: too dry a mix, too wet a mix, it isn't sticking so I'm dropping more on the ground than getting on the walls, and "Why can't you build normal stuff like everyone else?" In other words, all the usual adult hangups.

The kids had no trouble and dived right in. Being kids, they still knew how to play with mud and have fun.

After about an hour we stopped for a coffee break. When we got around to getting back to work, the crew had figured out what they were doing and went into overdrive. I didn't turn off my cement mixer once for the rest of the day! ►

"The kids had no trouble and dived right in. Being kids, they still knew how to play with mud and have fun"



Trowelling on the final 'colour' coat

Oops

“Shhh, don’t tell Bob” was the instinctive reaction of the hard-working, dedicated, and professional crew, but my loyal wife, who had to live with the finished product, yelled “Go get Bob, go get Bob!”

We had to shore the frame up on the inside. I should have seen this coming – if you can’t walk on the frame, it certainly isn’t going to support hundreds of kilos of wet cement.

Before long, the shed was fully plastered. I estimate we used about a ton of material for the first coat. That

night, a gentle rain fell – and the shed leaked like a sieve. We had lots of holes and small voids in the hastily applied first layer, but in a few days the shed was perfectly rigid and we could walk on it without the props inside.

My wife and I trowelled two more layers of cement onto the exterior of the barrel and one more coat onto the vertical end walls. The final layer had a bit of cement colouring dye added to the mix. These thinner, additional layers were easy to plaster onto the exterior surface – unlike the original layer, which had to be worked into the wire mesh.



Internal surface covering

The first coat of cement had mostly penetrated well into the lath on the inside of the shed for a nice, tight bond; but this was a very rough and sharp cheese-grater surface that was dangerous to go near. So, the walls inside would have to be covered with something. I didn’t think a cement-based plaster would work on the inside because, as we went up the wall, we would eventually be plastering upside down. Cement-based plasters are not tacky enough for this, even with lime added.

This was a job for gypsum plaster, which is essentially the same thing as plaster of Paris: drywall joint compound and premixed drywall mud. I could have plastered the interior with premixed drywall mud, but it would likely crack and this job was big enough to merit buying 25kg sacks of powdered gypsum plaster, and mixing it 50/50 with sand and enough water to make a nice thick compound.

Cement

Cement is a complex mixture whose formula varies with each manufacturer, but the magic ingredient is tricalcium silicate.

Cement doesn’t dry; it cures. The water in the mix doesn’t go away; a chemical reaction converts the water and tricalcium silicate to calcium silicate hydrate, calcium hydroxide, and heat. Thus, dry cement is the same weight as wet cement.

Mixed with lime and sand, cement becomes mortar or stucco, depending on the application. Mixed with sand and gravel, it becomes concrete.

Just like powdered gypsum plaster, bagged ‘Portland’ cement will absorb moisture from the air and go bad, but this takes longer to happen with cement, and can be checked by weighing the bag.

“Whitewash
is hands
down my
favourite
‘paint’”

Gypsum sticks well

Unlike cement and lime-based plasters, which can be quite alkali, gypsum plaster is safe, non-toxic, and easy to use. It sticks well to surfaces, doesn't crack, and anyone can have fun smearing it on a wall for a nice textured surface. The drawback is that it cannot be mixed in a cement mixer. It must be mixed by hand in a wheelbarrow or mortar trough with a hoe.

When finished with the gypsum plaster, we brushed on a coat of whitewash to brighten it up inside.

In an age when every can of paint you buy is overpriced, needs to be tinted and mixed in the store, contains

God-knows-what chemicals and outgases such foul toxins that indoor air quality is a real concern, whitewash is hands down my favourite 'paint'. It is naturally antiseptic, mould and mildew resistant, doesn't emit fumes, produces a unique surface glow due to the double refraction of calcite crystals, and is very cheap. It adheres well to

many surfaces but can leave a thin white film on your hand when rubbed hard. I make it by simply mixing fresh hydrated lime with water in a bucket. Do this outside, and don't breathe the fumes. It looks like skim milk, and drips and runs everywhere when brushed on a wall. Overnight it will turn a brilliant white as it dries. It is alkali. Try not to get much of it on your skin or splash it in your eyes.

Waterproofing

We had some very heavy rains during this period, and occasionally we'd get damp patches on the interior walls. I felt the structure still wasn't sufficiently waterproof so we applied a layer of Quikrete masonry coating. This stuff is sold in 10kg pails, is mixed with water to the consistency of thick paint, and is applied with a brush. I reckon it's made of Portland cement, fine sand, and a waterproof binder, probably acrylic.

The door is plywood surfaced with old boards, with a semicircular piece of glass we had lying around inset for a window. Lastly, shelves and counters were built, and, in the blink of an eye, it filled up with stuff! I'm pretty sure that happens with all sheds, right? ►



Whitewashed, and shelves going in



Interior surface of the shed



Ferro is good for a shed

Our shed is bear proof, and has plenty of thermal mass but zero insulation. Thus, in the summer it absorbs heat, re-radiating it into the interior, rather like an oven. In cold weather, the shell is as cold as ice. It's a fine shed, but I think ferro-cement would have serious drawbacks for use in a dwelling. The building would need to be well insulated, and I have no idea how I'd go about that.

Building with ferro-cement is fun,

isn't very expensive, requires few tools and skills, and is great for creating interesting shapes, yet it can still be a challenge because it is essentially unknown territory. There are few examples, and there is little sound engineering data to go by. We built this shed 16 years ago. It was a fun project and it has held up great and has met our expectations for a solid, low-maintenance storage shed with a cool sort of *Planet of the Apes* look to it.

It certainly is unique! 🏠

Lime

Lime made by heating limestone (calcium carbonate), driving off carbon dioxide gas, and leaving calcium oxide, or quicklime, which is pretty nasty stuff.

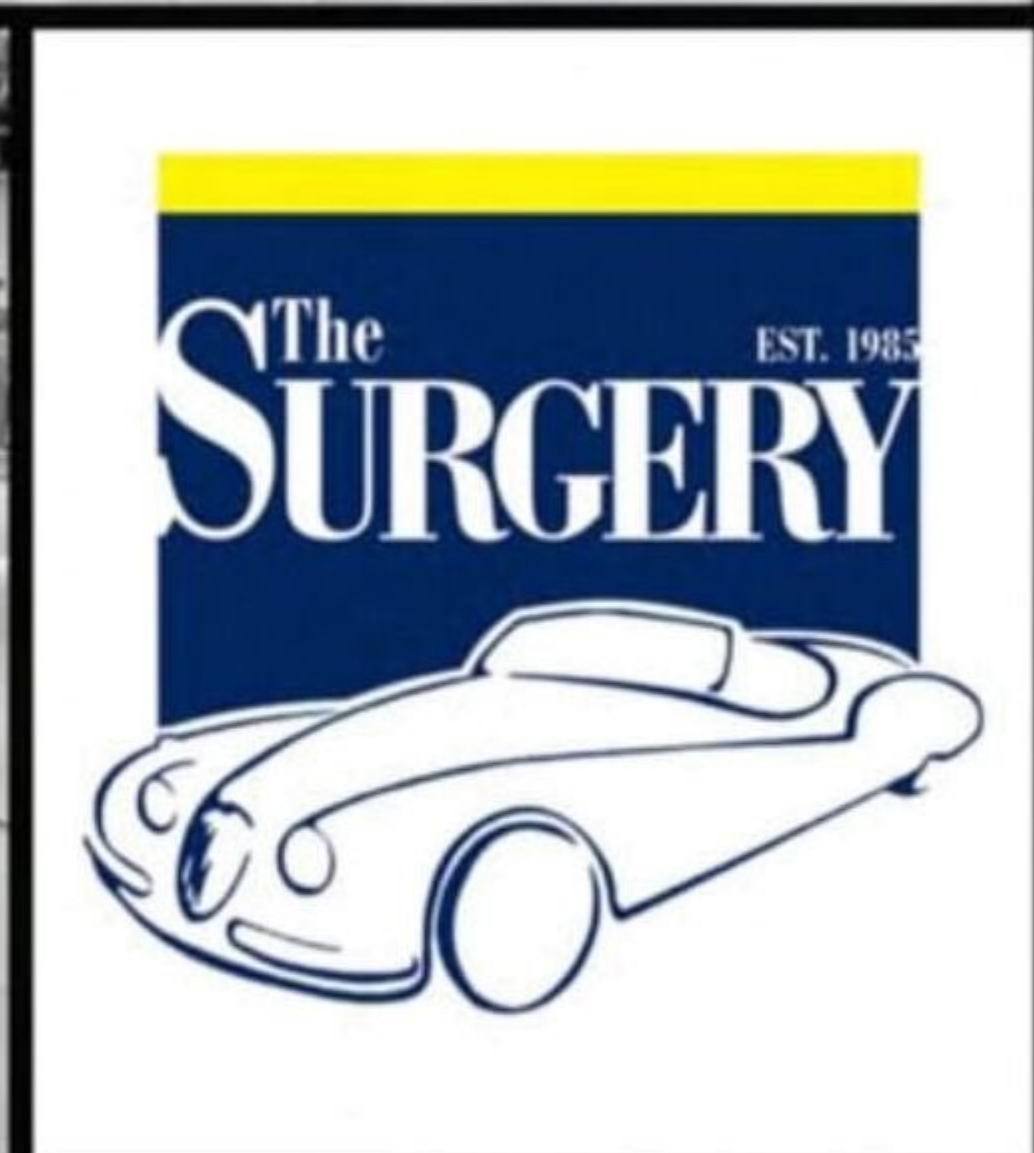
Quicklime is slaked with water, which converts it to hydrated lime (calcium hydroxide), which is sold in powdered form.

This is safer to handle than quicklime, but still somewhat alkali. Lime is different from cement or gypsum; it hardens by absorbing carbon dioxide from the air, converting it into calcium carbonate, which is right back where it started.

To make lime putty or plaster, simply soak fresh hydrated lime in water for as long as you can. English law used to forbid the use of lime plaster less than two years old. Lime plasters have been used for centuries for interior and exterior surfacing, but hydrated lime takes more energy to refine than cement does, making it expensive, and is still rather alkali, so nobody uses lime any more for anything besides adding it to cement.

I have had good results by simply mixing fresh hydrated lime and water to make whitewash, which I find works particularly well on plastered or stuccoed surfaces. Hydrated lime is sold in paper sacks and absorbs carbon dioxide from the air, so, just like cement or gypsum plaster, the stuff has a shelf life. We need the stuff to turn into limestone when it is painted on the wall or mixed into mortar, not beforehand.

An old bag of lime looks just like the fresh stuff, but it may be powdered limestone by the time you get it instead of hydrated lime. If your whitewash crumbled or turned to dust after it dried on the wall, the lime was too old; I've had this happen to me. Whitewash made with fresh lime lasts decades on interior applications. So use a fresh bag of lime, every time.



MY FIVE MINUTES WITH **IVAN DUTTON**

Living life to the full

By Mark Seek
markseek@rocketmail.com



Ivan is now 83 and having a whole new series of adventures. "Don't stop me now, I'm having such a good time" is his new motto



Ivan's dad was a Brooklands mechanic...

There's this bloke fossicking around under the bonnet of a portly Alvis grey lady; he's dressed in a grey boiler suit and black lace-ups. He appears enthusiastic, waving his spanner at the GoPro camera proudly (but calmly) as he announces that he'll be racing this old girl at Silverstone once he "tightens everything up".

Meet Mr Ivan Dutton; at a mere 80-something years, this chap has more get up and go than most blokes half his age, it would seem, and he has managed to amass a cult following on his YouTube channel Shed Racing.

Surfing the web

I was intrigued, to say the least, when I stumbled across this Englishman and his collection of car exotica whilst scrolling the Interweb on a wet afternoon here in Canterbury.

My wife, who must get bored with my constant request for her to look at some of the subject matter for my article, said "WOW!" – and consequently pointed at the laptop screen.

"There," she exclaimed. "He has vintage flying duck ornaments fixed to the workshop walls; now that's classy."

She then suggested that I could take a leaf out of this gentleman's book. I thought to myself, "I have to find out more."

Eccentricity has always baffled me because I'm just an ordinary bloke who never wanted to be noticed, yet I often have a quiet admiration for the well-to-do in life who have a bit of flair and fancy pants. That's kind of cool, and sometimes it can rub off on you and make life interesting.

Appetite for life

Ivan lives amongst the green hills and village lanes of Buckinghamshire, England.

His companion, Suzie, kindly offered me an opportunity to ask Ivan about his adventurous appetite for life. This senior storyteller has an extraordinary exuberance about him, with a natural ability to engage with his viewers by inviting them to virtually sit alongside him in the passenger seat as he belts along the hedgerows in one of his favourite cars. It could be an open wheeler from the '20s or one of the very first Minis from 1959 – which he absolutely adores.

Ivan casually mentions that his health was compromised some years ago. As I have recently received news that I have prostate cancer, I felt that I could deal with my own situation with a bit more courage and positivity upon hearing that Ivan's battle was successful. Cheers, Ivan! ►



...and Ivan learned a lot from him

"She then suggested that I could take a leaf out of this gentleman's book"



Ivan and his companion Suzie competing in a Trial in their 1922 Samson

So, let's put those sentiments aside for a moment and put Ivan in the driver's seat of this article, asking him straight up what makes him tick.

Thank you, Ivan, for taking some time from your day to speak to us blokes/sheddies down under.

Chatting to Ivan

The Shrink: Ivan, when you had some obviously serious health problems, what gave you hope during that period in your life. What were your coping strategies?

Ivan Dutton: When I was told I had throat cancer about 13 years ago, I wasn't the slightest bit bothered as I recognised I'd already had a lot of fun and a great life. A Macmillan nurse even took me to one side and told me I would be very ill. I didn't think making a fuss would help matters, so I actually didn't tell my family and loved ones until after Christmas, which was the following week. I then had the operation at the first opportunity.

I was looked after by the UK NHS so well, and the nurses were fantastic – and I couldn't even chat them up as I couldn't talk. Anyway, that is all behind me now. The operation was a success; I had to

have some radiotherapy afterwards, which was pretty unpleasant, but I was looking forward to getting back to my shed.

I retired at the age of 59 and let my son Timothy take control of Dutton Bugatti. He has done a fantastic job of building the business I started, and I was free to tinker with my own cars, bikes, and engines down in my shed.

New adventures

I'm now 83, and have been having a whole new series of adventures with my friend Suzie. Her dad had cars like me but has Alzheimers. I started helping her out, and we've become inseparable. She is great at organising stuff, and I can cope with the mechanical and driving side of things – and I do as I am told.

Already this year, we've done loads of VSCC [Vintage Sports-Car Club] trials in my 1922 Salmson – Suzie does the bouncing. We've been to the south of France to test-drive a Bugatti for my friend – check it out on YouTube: <https://www.youtube.com/watch?v=yOjofXSwilI&t=922s>.

In May, we did a road trip to Italy with

my 10-litre aero-engined Hall–Scott-powered Peugeot Indianapolis Special and a Ferrari 250, which Suzie shipped down there. Once again, we made a video: <https://www.youtube.com/watch?v=U1XMfypkZGo&t=849s>.

Loads of day trips to car meets, racetracks, a day trip to Milan to look at another Salmson in an auction, and a jolly to Silverstone in an original AC 289 Cobra, which Suzie's dad has had since the mid 1970s.

I am living my best life again since my association with Suzie, and if I had cancer again now I'd seriously have the hump. I keep telling people, "Don't stop me now, I'm having such a good time" – thanks Queen.

"I'm convinced he is a reincarnated petrolhead"



Ivan's friend John helps him with workshop projects



Touring Umbria in his Ferrari 250



Ivan joined in plenty of Vintage Sports-Car Club rallies in 2023

What fills Ivan's day?

TS: You manage to fill your days, it would appear. Would you be kind enough to let us into the routine of Ivan Dutton's life?

ID: Yes, I like to keep busy. I get down to my shed at 8am and pack up at 4.30pm. I have been known to fall asleep at lunchtime. We have a farm cat now, who lives outside but does come into the shed for warmth. I'm convinced he is a reincarnated petrolhead.

I have some assistance in the shed. John comes to help me – I gave him his first job 40 years ago, and he's been back with me for the last few years. Plus, I have Mary, who has looked after me, my finances, and paperwork for the last 40-odd years. Since last spring, a Ukrainian lady has been doing my YouTube videos. She is from Odessa, and came over as a refugee. Fortunately, her English has really improved and I'm pleased I've been able to give her something to do.

TS: Is relaxation something you do well?

ID: Well, I am now sitting outside in the depths of Umbria [Italy] with Suzie, so relaxing pretty well today.

We've been in the workshop this morning, getting a Ferrari ready for a rally later this week. When I am at home, I like watching YouTube. I love the Sampson Boat Company rebuilding of Tally Ho; what a bloke – he is an inspiration to anybody. Plus, I like watching Shuffle dancing – I think keeping abreast of new trends keeps you young.

Ivan's shed

TS: Let's look at the workshop for a moment – where, I presume, you spend a great amount of your time. Do you have a particular set of tools you prefer – maybe a special set of spanners?

ID: I've been buying Snap-on tools since 1972, and don't think I'll need to buy any more. You've got to have a lathe and milling machine to have a proper shed. I also swear by my Bradbury jack, which I bought in 1963 – in fact, I bought another one on eBay recently, as it finally wore out. ►

“We've been in the workshop this morning, getting a Ferrari ready for a rally later this week”



The farm cat joins Ivan in his shed every day at 8am



Suzie has made such a big difference to his life

Family

TS: You mention your father often in conversation, and how you fondly recall him working on cars – the sounds he made in the workshop. These are personal memories for you, yet you

share these with such cadence. As we all know, we can be inspired by men in our lives. How did he influence you?

ID: My dad was a Brooklands mechanic, and he really had seen it all. I loved cars from a very early age and learnt a lot from my dad. He wasn't the happiest character; in later life, we found out he had been suffering from diabetes. In fact, my mum was my inspiration. She was a very ordinary woman from Notting Hill but she was very streetwise and had some great sayings, such as "Everything happens for the best, son" – which might not be true but always helps.

TS: Is your family important to you?

ID: Yes, very important. I have tried to be supportive to my children and grandchildren. I've even got great-grandchildren now. I'm not sure what the future holds, so I do worry a bit about their future.

Innate talents

TS: It is obvious to myself, and I'm sure to others, that you seem to have an innate way of encouraging others and you share years of knowledge so readily; you have become a teacher, a storyteller, and a mentor, Ivan. Your thoughts on this?

ID: I've got no secrets. Over the years I have helped a lot of people. Explaining things comes to me effortlessly. I didn't excel at school, other than in metalwork, and left school with no qualifications whatsoever, but I've always known how to make mechanical things work and how to get people to help me. These days, they would probably have diagnosed me as dyslexic, but it wasn't such a well-recognised condition then. I started work at 15 in a factory – that was a very good grounding – and I've never had trouble making people laugh.

In 1972, through sheer good luck, I managed to get the opportunity to race a Ford Escort and was sponsored by Lyons Tea.

Not only that, but I was actually very competitive and won 18 races straight off. This was unheard of, but I knew the inner workings of the car and this mechanical understanding, together with my competitive nature, helped me trounce the competition. The motoring media even called me 'The paralysar'.

Back in those days, there was an excellent driver called Bernard Unett. I watched him intensely. I really thought he was the best. However, he didn't have much in terms of chat. I always knew that I could outdo him with the old chat. In fact, I've been invited to a few motoring events to give a talk. Most of it is not exactly politically correct, but at 83 I think I can get away with it. 🚗

Last year saw Ivan travel all around France and Italy rallying, touring and looking at new cars of interest



"I was actually very competitive and won 18 races straight off"

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Rawene in the 1940s. The Williams' shed in situ half-way down the old wharf

ON THE WATERFRONT

The story of this venerable shed reflects the history of a whole district

By Jason Burgess
Photographs: Jason Burgess





Weighing station



The original Sydney Blue Seal corrugated iron wall

If the walls of the Williams & Sons shed in Rawene could talk, the conversation would be deafening.

This corrugated iron hut has been a feature of the Northland town's wharf and waterfront since 1873. It was originally built as a repository for dry stores, goods, and explosives. During its lifetime, it has moved location along the wharf at least twice before coming to rest in the late 1960s at its present spot, on piles, above the Hokianga shoreline.

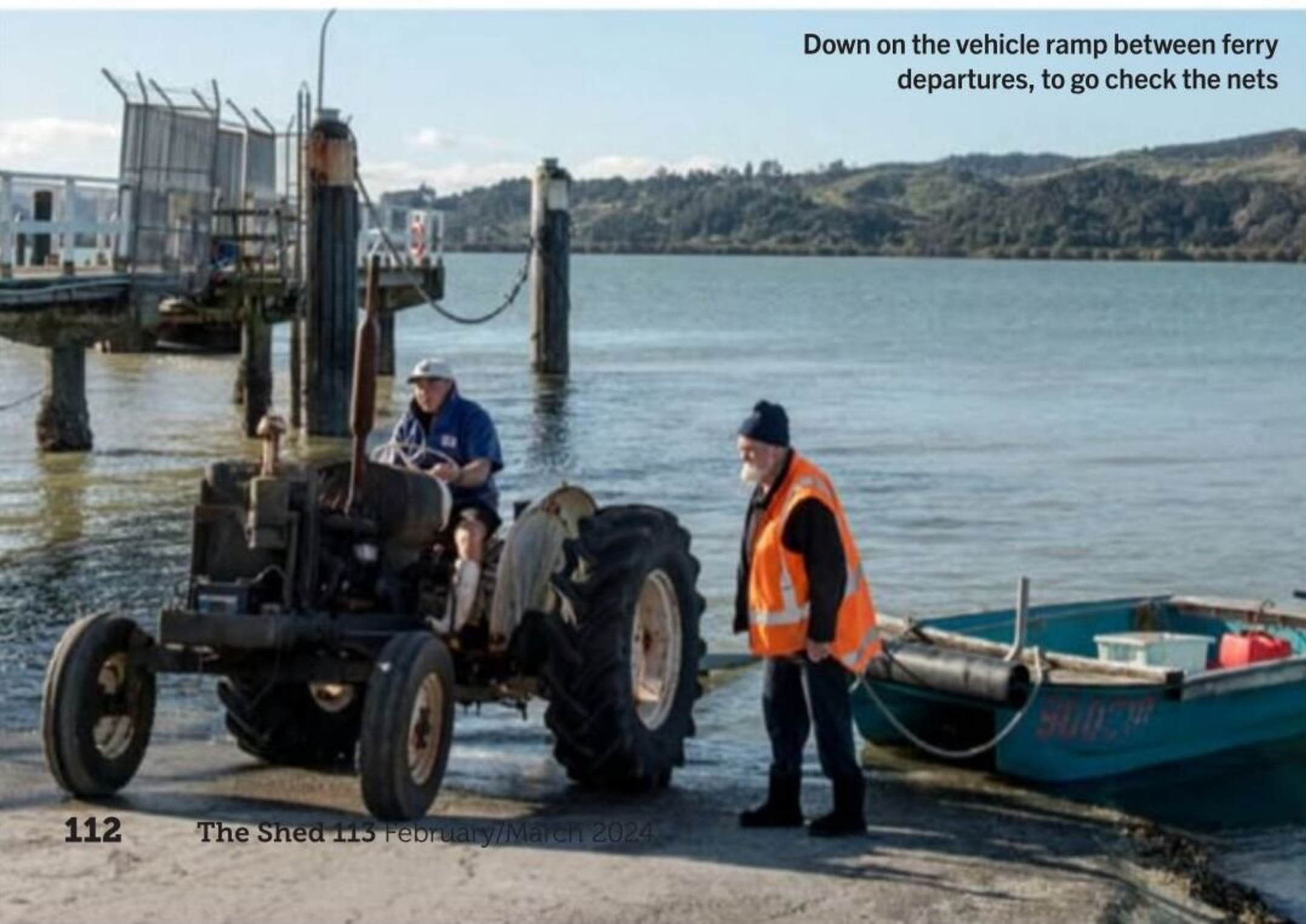
The building has served all manner of roles, from storage to ferry office, bus depot, and boat maintenance workshop. It is best known to locals as the go-to outlet for fresh and smoked fish. While the shed's iron sidings may not have the ability to speak, proprietors Nick Williams and his son Hugh are not averse to having a natter about the place and their family's connection to it.

A full-on working space

The interior of the Williams' fishing shack feels more like the cluttered back room of a maritime museum than the working space it is. There's tackle, tools, outboards, fuel cans, rope, oars, and a coral collection as well as rods, nets, and wet weather gear of all ages, hung, strung, stacked, and/or leaning anywhere there is a space. Across one section of the floor, acetylene torch sparks and hot embers have left charred marks on the original rimu boards.

"This was the workshop," says Nick. "We used to have a forge, anvil, and all sorts of stuff in here. The old man [Hugh senior] was a jack of all trades: forging, welding, woodwork. We have stripped and rebuilt engines in here, and done all kinds of maintenance." ►

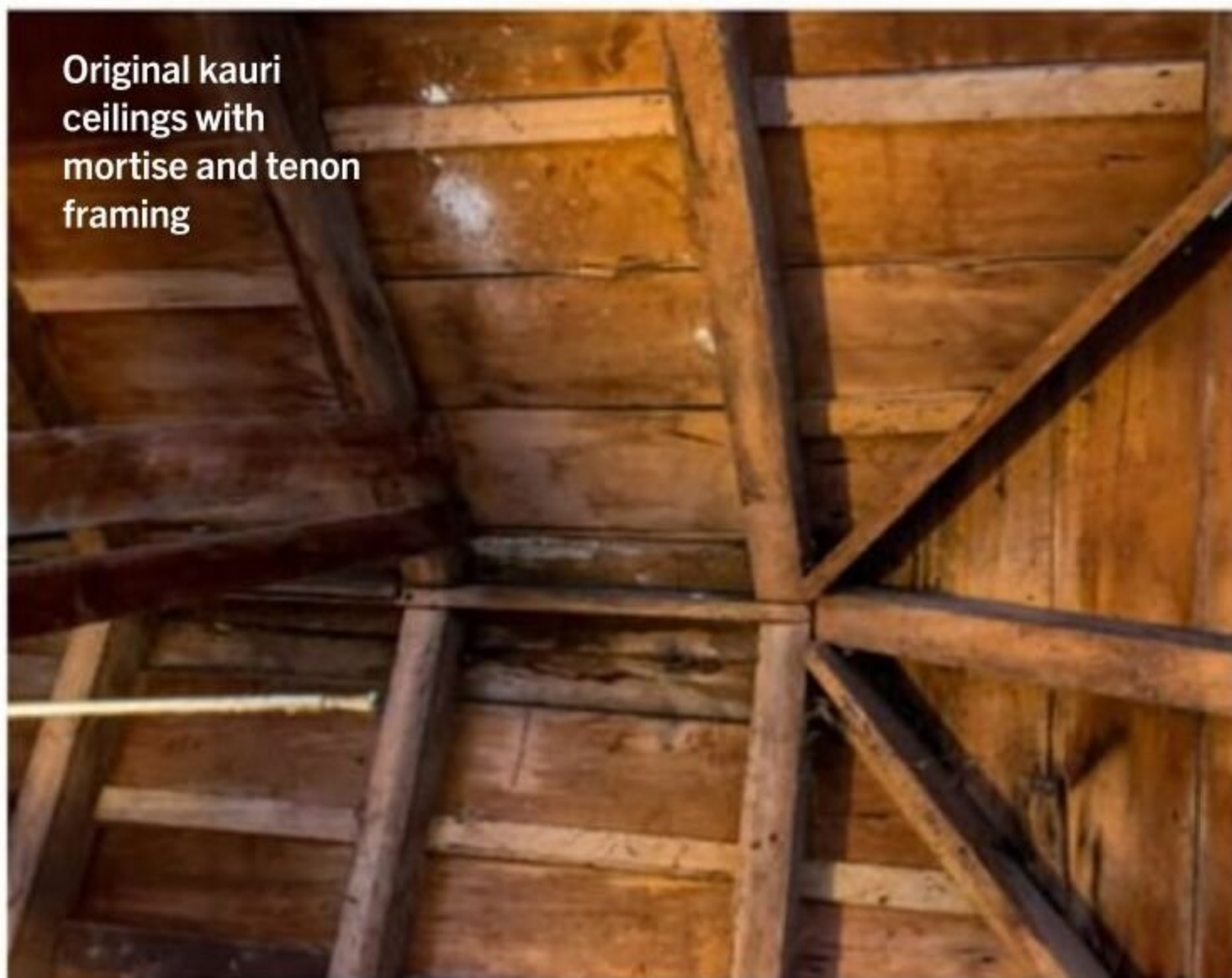
"It is best known to locals as the go-to outlet for fresh and smoked fish"



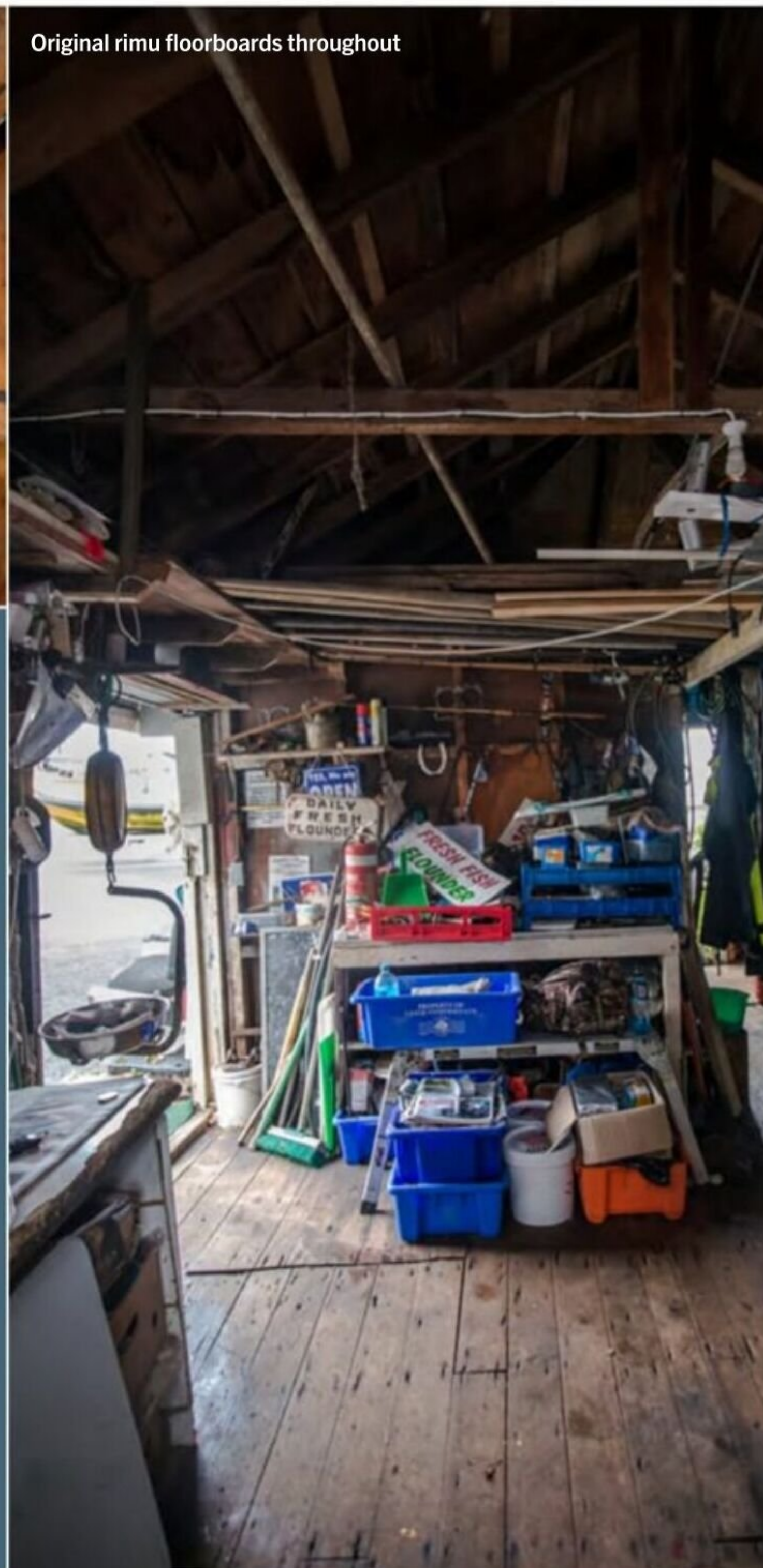
Down on the vehicle ramp between ferry departures, to go check the nets



Nick Williams opens for business. He has been a fixture on the Rawene waterfront for the past three decades



Original kauri ceilings with mortise and tenon framing



Original rimu floorboards throughout

The shed

When the shed was moved to its present site, a new door was installed to the road frontage, which was also reclad. Inside, the 12x1-inch kauri ceiling lining and the mortise and tenon framing are all original. There are some remaining patches of concrete and pumice touch-ups in the walls.

“She is still weather-proof,” says Nick. “They go on about double glazing but it is warm in here. There used to be sarking on all the walls; it was vermin proof. There is still some of the original Sydney Blue Seal corrugated cladding. Some parts of it are pinholed like it’s been shot with a shotgun.”

Over the years, the workshop has been rejigged for purpose: as an office for the Hokianga ferry; as a bus depot for the old Railways buses; and, finally, as the Williams’ fishing shack.

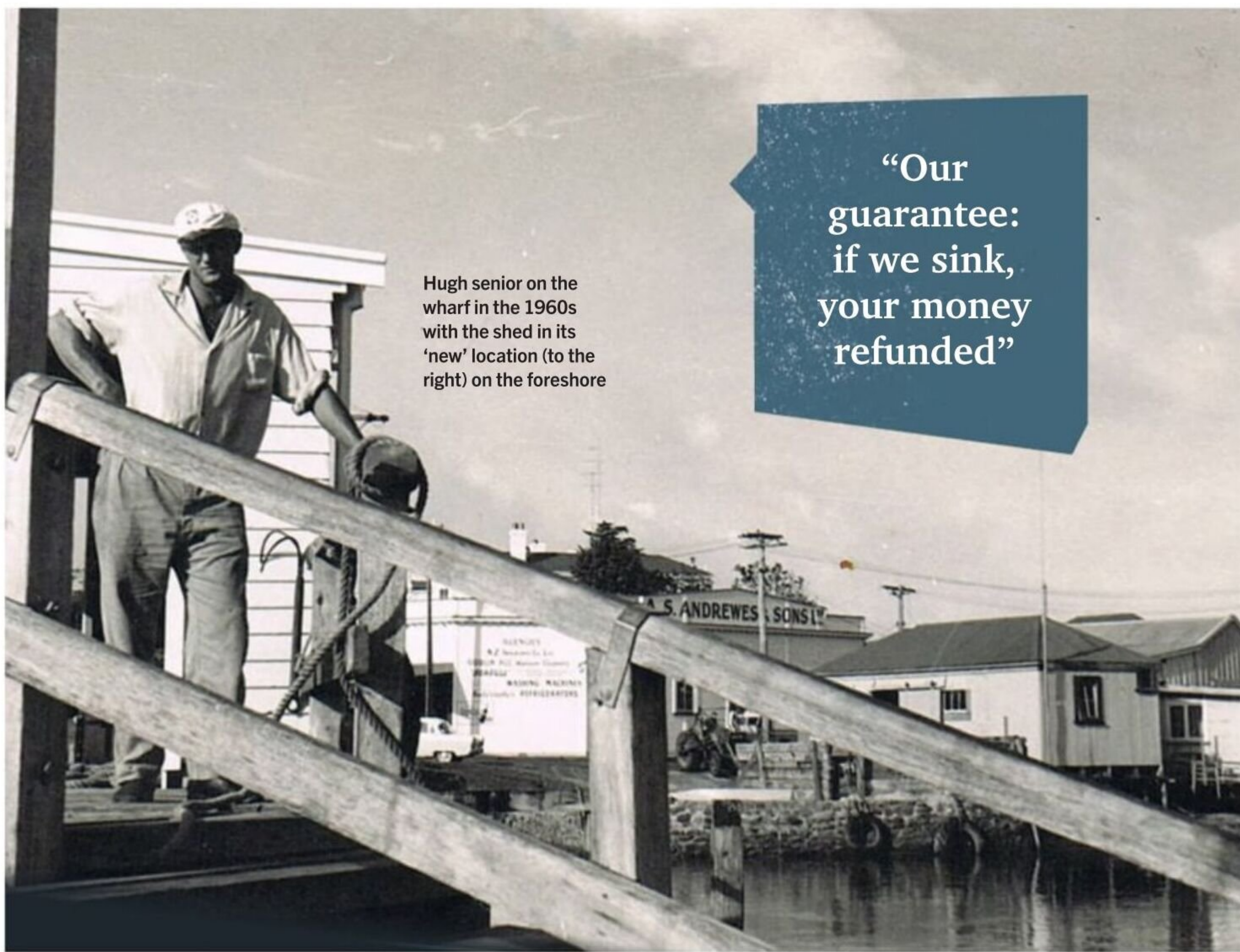
For years, Hugh’s workbench was attached to an inner wall. Nick remembers nets being slung across the roof beams on maintenance days. A timber demolition box of indeterminable age – a relic from the old slipway of Motukaraka Dairy Factory – acts as a storage cabinet and tool-box partition between the concrete-floored lunch-room extension and the workshop area. The seaside lunch-room was repiled about five years ago, and Nick points out the original and subsiding rimu floor in the back half that needs attention. Hugh says, “We are thinking about raising the shed, as the sea level is rising. It’s really noticeable on a king tide, when the weather is rough.”



The shed and ‘shop’ door side entrance. On fine days a branded Ezi-Up tent and serving table beside the door alerts those-in-the-know that fresh smoked fish is ready to go

Keeping it in the
whanau, Nick (right)
and Hugh Williams
prepping the nets





Hugh senior on the wharf in the 1960s with the shed in its 'new' location (to the right) on the foreshore

“Our
guarantee:
if we sink,
your money
refunded”

The big guy

Hugh senior officially started working on the water during WWII, while still a secondary school student. He was charged with captaining the school runs up and down the Hokianga because, first, he had experience working on his father's boats; second, all the able-bodied men had been called up for the military; and third, he was a big guy, so people assumed he was an adult.

After the war, Hugh started working for Subritzky's. In the early 1950s, he and his brother bought Hokianga Ferries and the *Awaroa* ferry from that company. As part of the deal, they got the shed thrown in.

In the '50s, the shed acted as the ferry office and had already been moved from its original spot at the end of the pier to midway down the old wharf. As to the *Awaroa*, she transported just two cars at a time and had the following promise hand-painted on the hull: “Hokianga Ferries HH&P Williams, Travel from Here to Eternity. Our guarantee: if we sink, your money refunded.” ►



Captain Hugh senior:
ferryman, fisherman,
engineer, timber hauler,
cable layer, postie,
and cream collector /
milkman

The harbour as a highway

The harbour was the highway at that time, and Hugh ferried cream, passengers, and mail.

“No one had a car,” says Nick. “The trains from Auckland came through Kaikohe up to Okaihau. Passengers got a bus from there to Horeke and then down the harbour by mailboat.

“In summer, Dad had plenty of passengers to transport, but in winter there were bugger-all people around, so he relied on fishing for the locals. Fishing was always part of the family business.”

Hugh also operated an old scow called *Esme* as a barge, transporting Hokianga sand – noted for its high silica content –

to Rawene for the Hardie Brothers and concrete-boat builders.

“His other vessels were employed for cable laying and house removals. For a time, when selective native timber logging was active in the area, the company would also retrieve ‘sinkers’ – logs that were cut loose from towed rafts of timber to save the whole lot going down.

“The deal there was that Dad would get the logs but the mill owner took a third of the timber, and he always took the best third. My old man was a big bugger so, when he measured up, he would always wrap the tape measure around his hands – big hands – a couple of times to gain back a few feet.” ►

“In winter there were bugger-all people around, so he relied on fishing for the locals. Fishing was always part of the family business”

The car ferry at Rawene-wharf, 1950s style. (Photo Eric Lee Johnson from Te Papa Collections)



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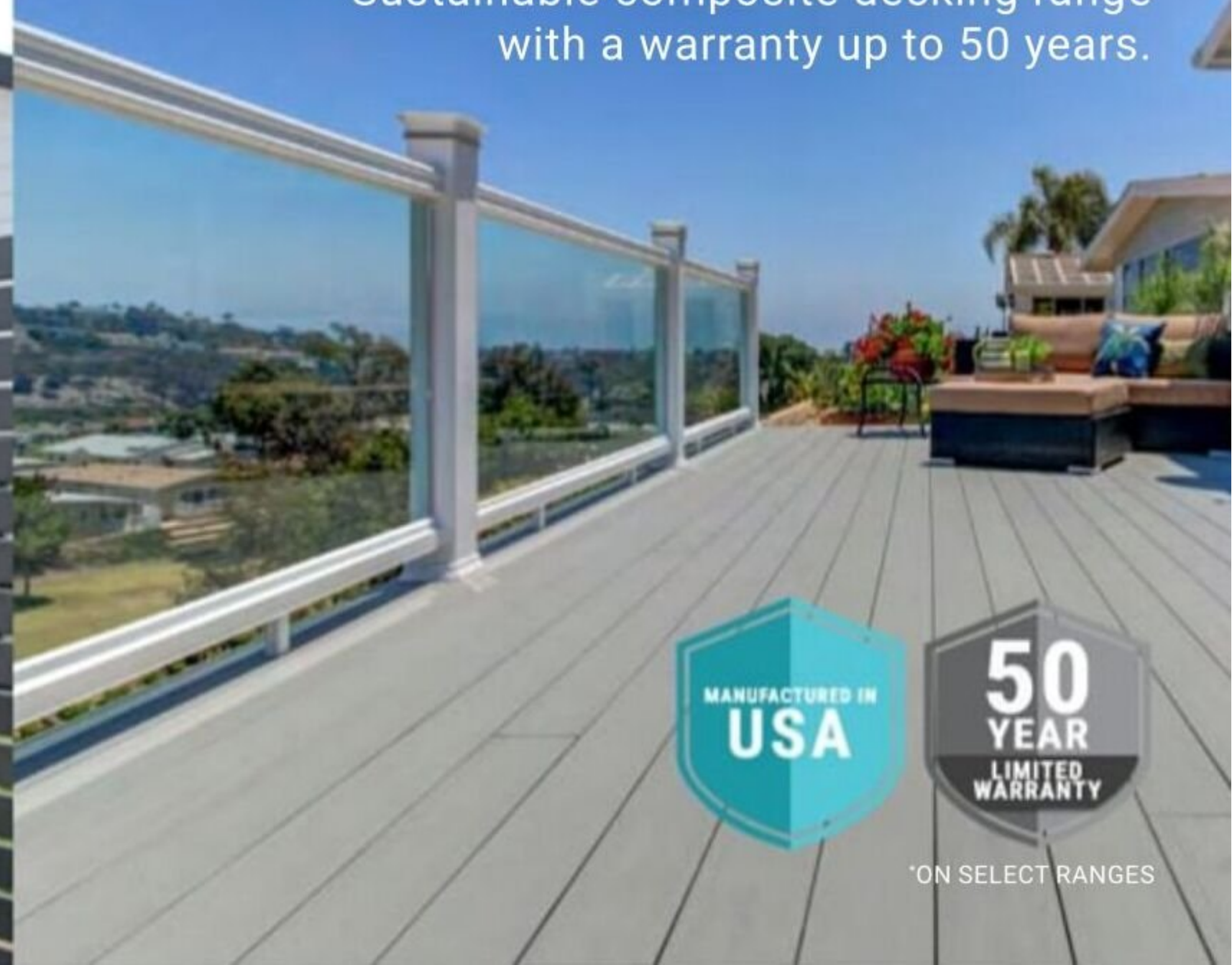
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Rawene to Kohukohu vehicle ferry 1950s style

Valeeka and Opo

Nick recalls his father's main boat, *Valeeka*.

"She had a straight-eight Scripps petrol engine; it was the fastest thing on the harbour, carried more, and was very efficient because it did not break down.

"I remember one day having three people skiing behind her – she had a good bow wave."

Hugh used *Valeeka* on cream runs from the bottom end of the harbour to the old Motukaraka Dairy Factory.

One day in 1955, the playful presence of a dolphin called Opo started making

waves throughout the Hokianga.

"Before the tourists arrived," says Nick, "Opo spent months at the north end of the harbour. She started following the old man because the other boats were too slow."

There were very few wharves in the area, so farmers had to row out to *Valeeka* to transfer their cream cans. At low tide, they would ride their horses into the harbour.

"Some farmers thought Opo was a pest. She would swim around and under their horses' legs and take farm dogs out into the current when they chased her."



Hugh junior at his workstation inside the shed

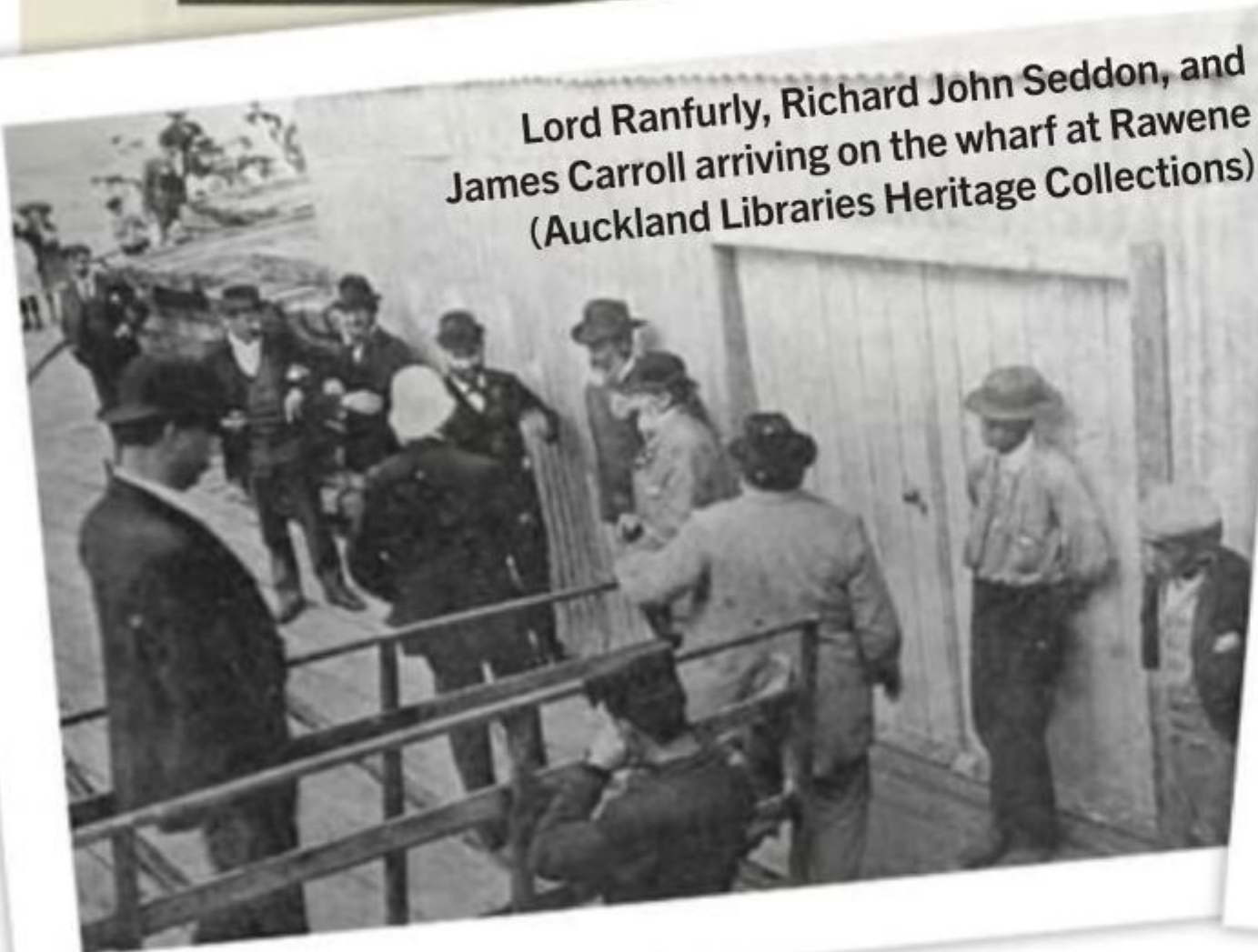
Opo (known as 'Opo Jack'), the celebrity dolphin of Opononi, entertains visitors in 1956 (Archives New Zealand)



The arrival of the steam ship *Rarawa* at Rawene in 1903.
The shed is in its original position at the end of the wharf.
(Auckland Libraries Heritage Collections)



Lord Ranfurly, Richard John Seddon, and
James Carroll arriving on the wharf at Rawene
(Auckland Libraries Heritage Collections)



On the window ledge a portrait of a young Hugh (Jnr.) against a
vintage shot of summer harbour transport queues.

Homecoming

After leaving school in 1967, Nick came home to help Hugh senior, who was recovering from an injury. While in Rawene, Nick got involved with infrastructure work for a new ferry wharf.

As the remodelling happened, the shed was moved to its present location, on a former sandpit where the *Esme* used to unload.

“She was brought around by barge,” recalls Nick. “The Hardie Brothers came, loaded up Barry Woods’ truck with sand, and they slid it up here. But they pulled the shed up too far and then couldn’t push it back. There was supposed to be a car park out the front here. So, it was: as is where is!” ►



The shed and fishing
prepping station on the
Rawene foreshore

Early days of commercial diving

When two of the construction divers on the wharf rebuild were taken ill, head diver Bill Cripp recruited Nick. Commercial diving was still in its infancy then, but Nick already had diving experience using an early diaphragm that Hugh had bought for boat maintenance.

“Because I was a diver,” Nick says, “I worked in conjunction with the police recovering bodies and all sorts from the harbour. Then Bill took me to Southeast Asia to work in the fossil fuel industry.”

When Nick quit diving, he joined the New Zealand Army as a combat engineer. He reckons the highlight of his service was spending two seasons on Antarctic operations. He served for 20 years before retiring from the military in the 1990s.

The Hoki is home

Despite his years of globetrotting, Nick always knew that he would return to the Hokianga.

“Rawene was it; no other place in the world I’d rather be. With the skills I had, I went in with the old man – because he had sustained another injury. He fished all the time, but in the ’80s, when they brought in the quota management system, he got virtually nothing. I came home and invested a substantial sum in purchasing fishing quotas. I’m probably one of the larger private holders of fishing quotas.”

With Nick having some recent health issues of his own, it is now Hugh [junior] and his cousin Bronson who take care of the fishing duties. Nick can still be found most days perched outside the shed, overseeing the comings and goings on the wharf.



Bronson with a fresh catch of pātiki (flounder)

Hugh and Bronson sorting the day's catch



“I came home and invested a substantial sum into purchasing fishing quotas”



Outside the shed, Hugh and his cousin Bronson ready for a day on the water

The old ways

Hugh was just 10 years old when his grandfather passed, but he still recalls him “taking me out on the boats and showing me all the simple things like baiting hooks”. In the shed, he remembers him “making rebar anchors for the flounder nets, doing engine maintenance, and mending boats. He taught me some woodworking skills: caulking through the planks, taking planks off, steaming them, and re-molding. He and Dad taught me how to use different types of nails and hammers – tapping rather than banging – [and] welding work: trailers, anchors, and bar work. They used to build timber dories from the shed at our house.”

A fishing life

Hugh has been a commercial fisherman all his working life. He says he grew up fishing, and remembers Nick wrapping him up in a blanket and laying him in the bow for dawn-breaker fishing trips. “I would wake up on cold, foggy

mornings out in the middle of nowhere. It was an awesome childhood, being surrounded by the moana like that.”

Cook Strait and the South Island are where Hugh earned his tickets. While he no longer contends with mountainous ocean swells and icy gale-force winds, he still enjoys the challenges of being out in the elements every day. He reckons harbour fishing is more akin to farming.

“It’s a game of chess with the weather patterns, currents, and water temps – like wondering which paddocks to put your cows in.”

Sustainability may be the buzz word for the 21st century, but Hugh believes that learning ‘the old ways’ has made him more respectful of the resource. “Knowing how to fish certain species; putting them back when they are in roe; gutting out in the channel – not where we fish – and, naturally, putting a rahui on ourselves. This harbour is a nursery, and we are not really touching the fish stock.” ▶



Bronson racks up a catch for the smoker



Some of Nick's collection of old accessories, saved and salvaged from the tide



Readying the boat for an early morning fishing

The business

With the whole of the Hokianga as their domain, the cousins say they avoid fishing in one area for more than two days. Their target catch is mullet and flounder, and the time between catching and landing is usually less than an hour. Hugh calls mullet “soul food; it’s nostalgic; it brings back childhood memories”.

Two or three times a week, they smoke a portion of their catch out front of the shed, in a gas-fired Kiwi Sizzler.

“People can come down and get it while it’s warm. We have a larger wood-smoker at home that can do 80–100 fish at a time, but we rarely use that — except for events like tangihanga or if someone catches a big marlin over the bar in summer.”

For the Williams, operating a small-scale, independent fishing business in the Hokianga is not just about profit.

“We are bringing in fresh-caught produce for our community,” says Hugh. “There is no middle man. It is straight

off of the boat, straight into people’s hands, and straight onto the table. That means so much to me. Seeing people’s faces when you bring them fresh products – you can’t beat it, really.” 🐟



Hugh holds a couple of kānae (grey mullet), which he calls “soul food”

“It’s a game of chess with the weather patterns, currents, and water temps – like wondering which paddocks to put your cows in”

Below: In the 1950s the shed stood midway down the old wharf as seen here with the ferry *Malaita* in the foreground. (Photo by Eric Lee Johnson, Te Papa Collections)



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INSTRUCTIONS ENCLOSED

All-too-often, assembly instructions can leave DIYers feeling as if they are the central character in a cartoon

By Jude Woodside

Let's hope 2024 bears no relation to the past year, which is best forgotten. Although my eternal optimism is often misplaced, the sun returning has lifted my spirits. I am feeling more my cheerful old self, with more emphasis on the 'old' this time round.

I have been reflecting on instructions – partly due to the awful instructions associated with my shed, which caused me much confusion and many mistakes. The plans included a piece that, if fitted as instructed, would have meant the roller doors couldn't fit. It seems that my plans were some sort of hybrid of several other plans.

The shed is due for an inspection – only a year late – but it will be interesting to see how the inspector sees it.

In the stereotype, men typically ignore instructions until we have no other option; I confess to being true to type.

However, with complicated matters I do like to have a guide.

Pictures are replacing text

I have noticed a trend, especially in goods made in China or even Europe, for the instructions to be illustrations. Of course, that is fine if you can actually see what they are talking about. A case in point is this image from the plans for my shed. It's an isometric drawing but to actually make sense of it requires a mental lurch. It's not the best possible view of the piece; some shading would have helped.

New year, new plans

I have big plans for this year. I am looking forward to producing an array of new projects, some to help me be more productive in my new workspace. It is very liberating not to be hampered by the deadlines that I have spent my life ruled by – although not everyone is as keen on my liberated attitude.

(Sorry, Ed, I'll try to be more prompt this year.)

[Yeah right, Ed]

I'm planning to do more with video, although video production is fiddly and time consuming. Done well, video is one of the best mediums for demonstrating processes.

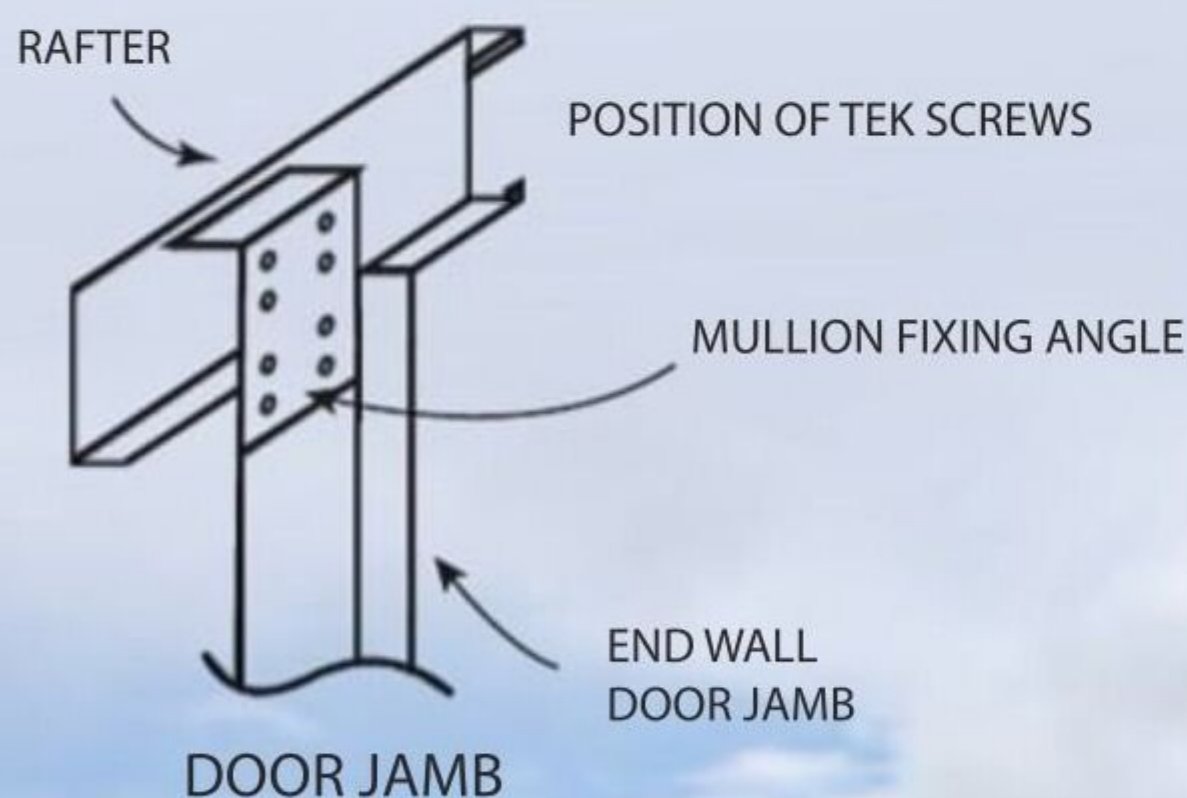
I'm sure you, too, have your favourite YouTubers. Some are very good and know how to edit and keep the articles tight. Others have a habit of droning on at length until I find myself shouting "Just get to the point!", or just dumping the clip.

I particularly hate the process videos that are simply a series of actions with no hint of what is actually being made, designed to hook you into watching to the end only to be disappointed that it took so long to create something so mediocre.

It just occurred to me that the unkind might say the same about this column! 🗑️

"Only to be disappointed that it took so long to create something so mediocre"

Illustrations done well are a bridge between cultures, and far superior to the tortured English on Chinese instructions, which, I swear, are generated by either the Google algorithm or laborious consultation of a thesaurus.



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