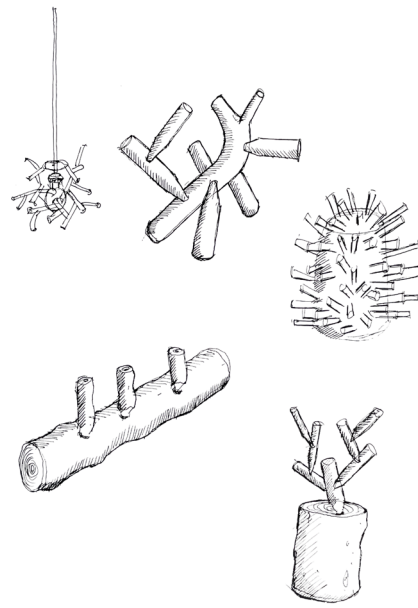


# MAKERS MANUAL #59

## Sigve Knutson

# TINY DOWEL MAKER



### BIO OF THE DESIGNER

Sigve Knutson's practice is driven by his exploration of tools and materials and focuses on the intuitive and the spontaneous in the process of making. Deeply motivated by a drawing mentality, he creates sculptural objects that call for an interaction with the very materials, as much as a connection with our collective creative memory.

### FURTHER READING

- Seven Logics of Sculpture (Ernst van Alphen)
- Duodji Reader (Gunnvor Guttorm, Harald Gaski, Norwegian Crafts)
- Documents on Contemporary Crafts 1-5 (André Gali/ Hege Henriksen, Norwegian Crafts)
- watch: Alone in the Wilderness (2004), Dick Proenneke,

### LIST OF THINGS

#### MATERIALS

- Small branches (as straight as possible)

#### TOOLS

- 2x pliers
- Small screwdriver
- Aluminium-cast pencil sharpener (buy the double ones, as this will give you two opportunities to break the blade)
- Power drill
- Scalpel or craft knife
- Safety goggles

#### SAFETY

Wear safety goggles as you will be breaking a very sharp blade by force.

### INTRODUCTION

This manual shows you how to repurpose a regular aluminium-cast pencil sharpener into a tiny dowel maker. It is designed for everyone, especially design students who are looking for ways to experiment with wood and who wish to explore ways of developing their design skills through making. The manual will guide users in the creation of assemblage, building block-type sculptures or functional objects using small branches from trees as its main material. It starts by crafting a dowel maker from a pencil sharpener and then guides you towards a more hands-on experimentation with ways to join branches to each other.

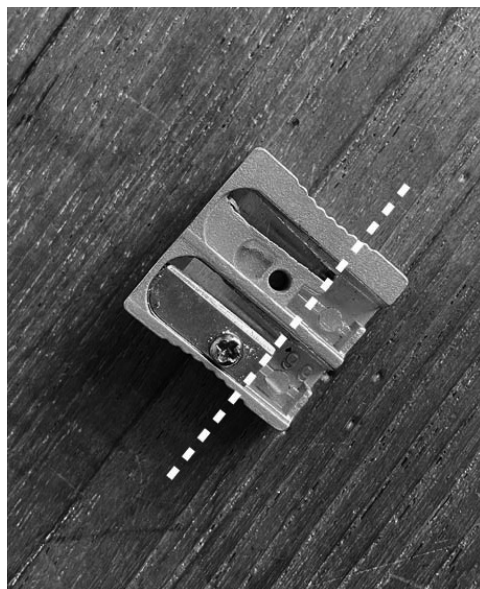
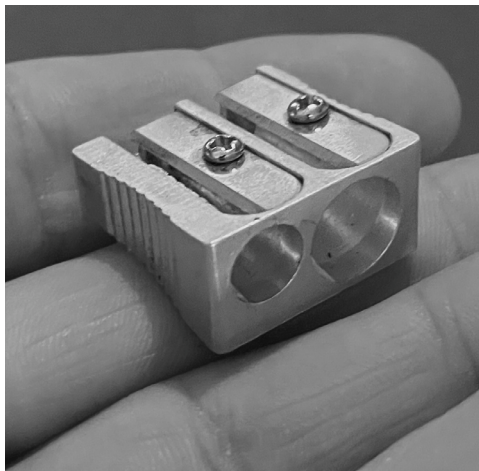
Makers Manual is a collaborative project between exciting makers and STORE STORE. This is a collection of manuals encouraging people to make objects from what is around them. These manuals are both a practical guide to making for beginners and experts, and a journey into the designers' practice. You can share your creations using #makersmanual.

This project is supported by G.F Smith.

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**STEP 1**  
Unscrew the blade of the pencil sharpener using the small screwdriver



**STEP 2**  
Hold the blade in the pliers, and use another set of pliers to snap a bit of this blade off, being careful to avoid the hole (as you will be using this to screw the blade back onto the sharpener).

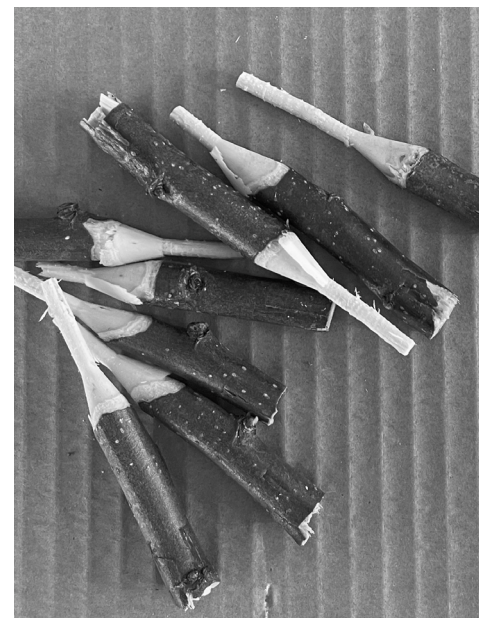


**STEP 3**  
There is a point in the end of the guide hole illustrated in image 2. Ideally the blade snaps off exactly at this line.

**STEP 4**  
Screw the blade back onto the sharpener again using the original screw, making sure the blade is pushed up against the side of the sharpener where the pencils usually go through. The sharpener is now ready to turn the end of branches into tapered tenons.

**STEP 5**  
You then want to see whether the sharpener works, test this by hand. Take a branch and try and turn it like you would sharpen a pencil. If the branch is bigger than the opening at the end of the sharpener, use a scalpel or craft knife to whittle it down. Note that some garden branches have cores that are too soft and are less suitable for this process. Experiment with different branches until you find a material that works well.

**STEP 6**  
You can place your branches in the chuck of the power drill, tighten the chuck around the branch, and press the trigger gently to turn the branches in the sharpener faster. Use one hand to hold the sharpener still carefully with a set of pliers.



**STEP 7**  
Once you have turned out a few tapered branches, measure the diameter of the tenon and find a corresponding drill bit. Typically, these end up being ~3.5-4mm.

**STEP 8**  
Use the power drill and this drill bit to make holes in the branches. See if the hole is right by inserting a tapered branch into it and testing whether it stays in the hole. Adjust the size of the drill bit as necessary.



**STEP 9**  
Now you have everything you need to create modular structures with branches. try building with this process, see how big you can go!



