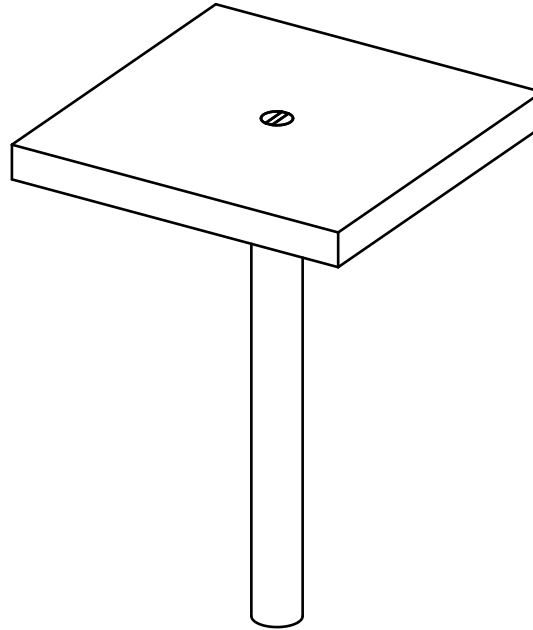


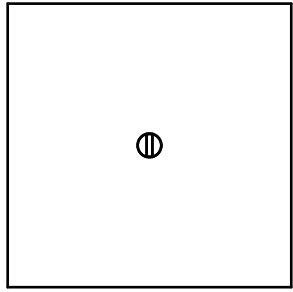
Wedged round tenon



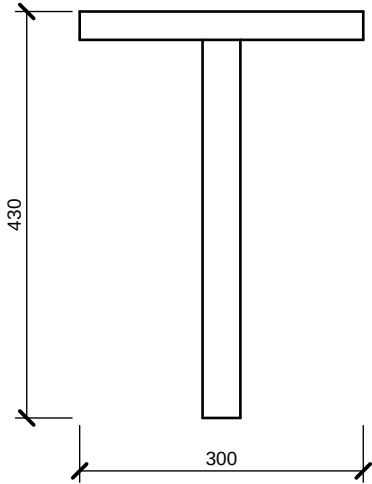
parts	3
overall	300 x 300 x 430 (W x D x H)
material	oak
date	2026-10-25
made with	woodwright 0.9.0

Contents

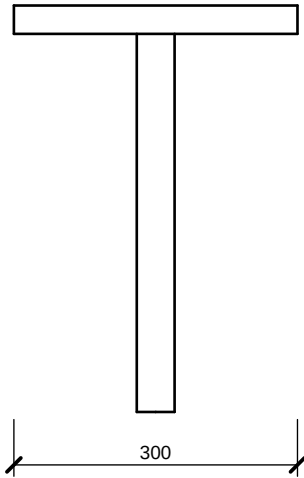
Drawings	3
Assembly	3
Parts	4
1 seat	5
2 leg	6
3 wedge	7
Cut list	8
Appendix: source	9



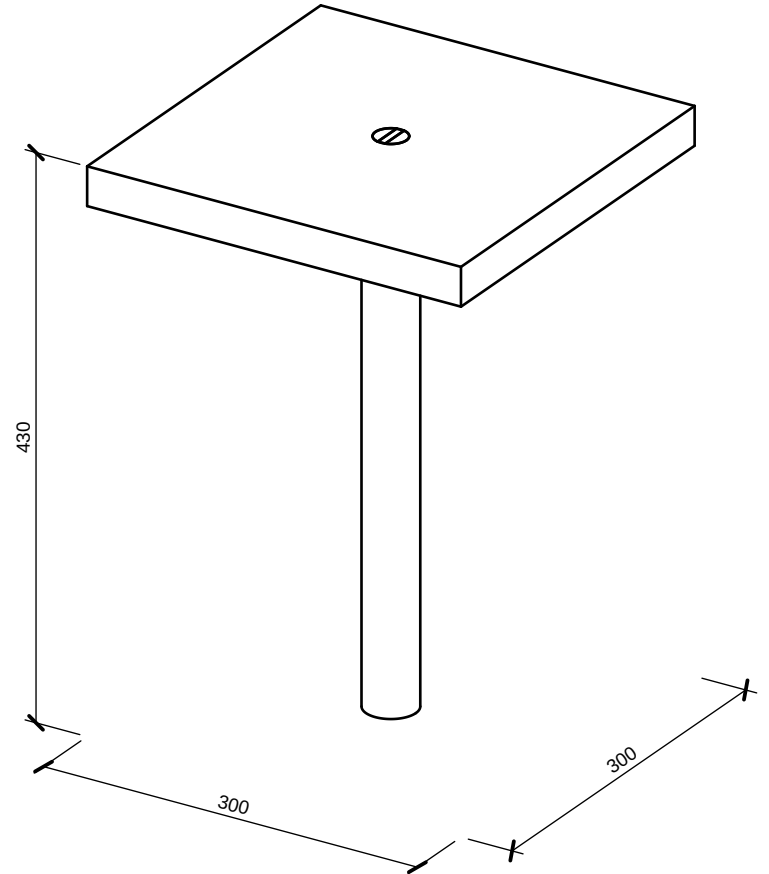
TOP



FRONT

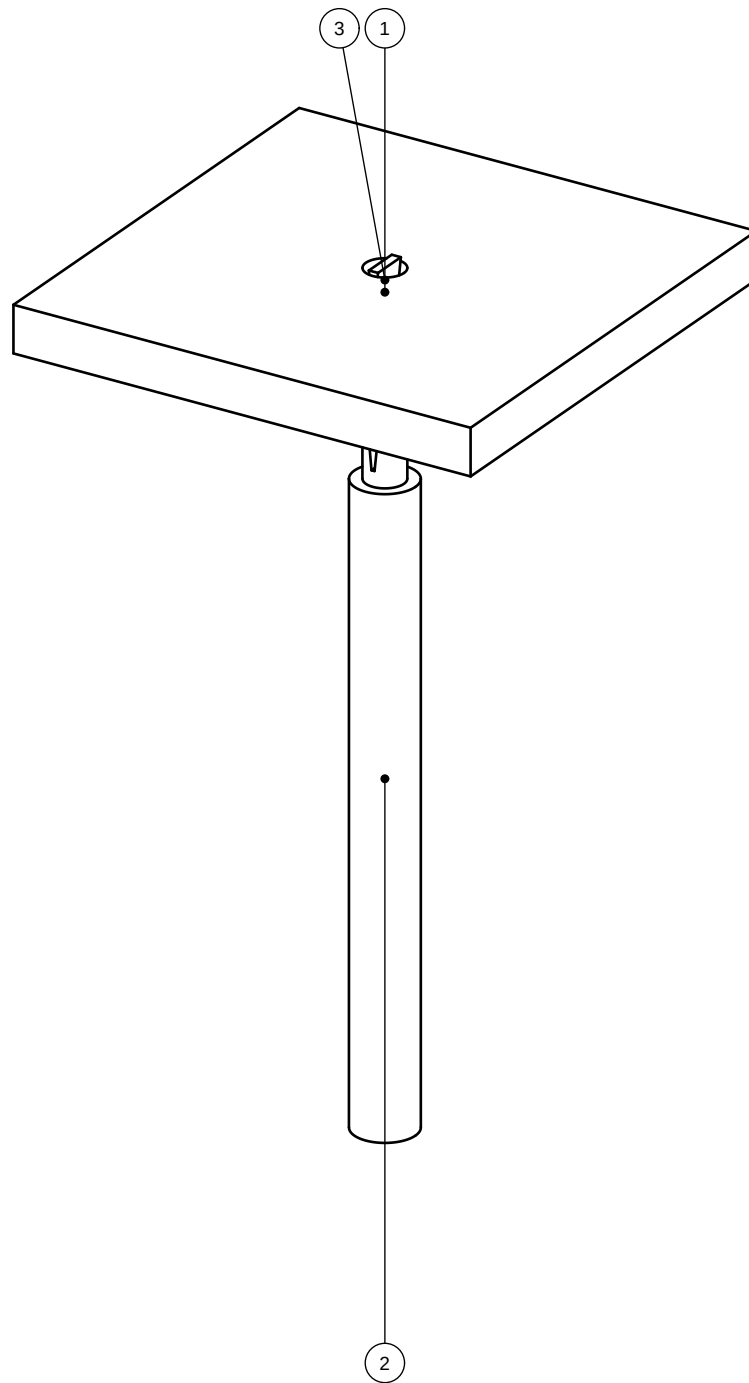


RIGHT SIDE



ISOMETRIC

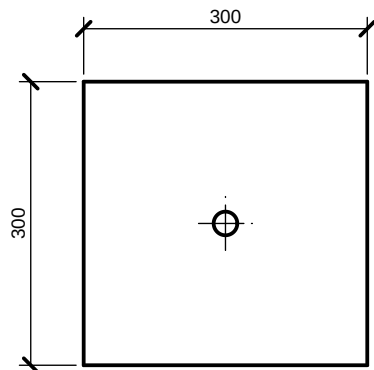
assembly	wedged_round_tenon
parts	3
overall	300 x 300 x 430 (W x D x H)
material	oak
scale	1:8, mm



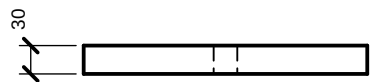
EXPLODED

no.	part	qty	cut size (L x W x T)	material
1	seat	1	300 x 300 x 30	oak
2	leg	1	ø40 x 430	oak
3	wedge	1	20 x 6 x 24	oak

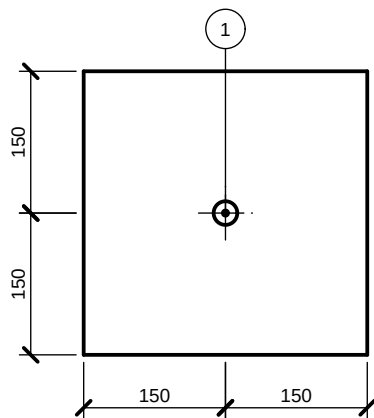
assembly	wedged_round_tenon
parts	3
overall	300 x 300 x 430 (W x D x H)
material	oak
scale	not to scale, mm



TOP FACE

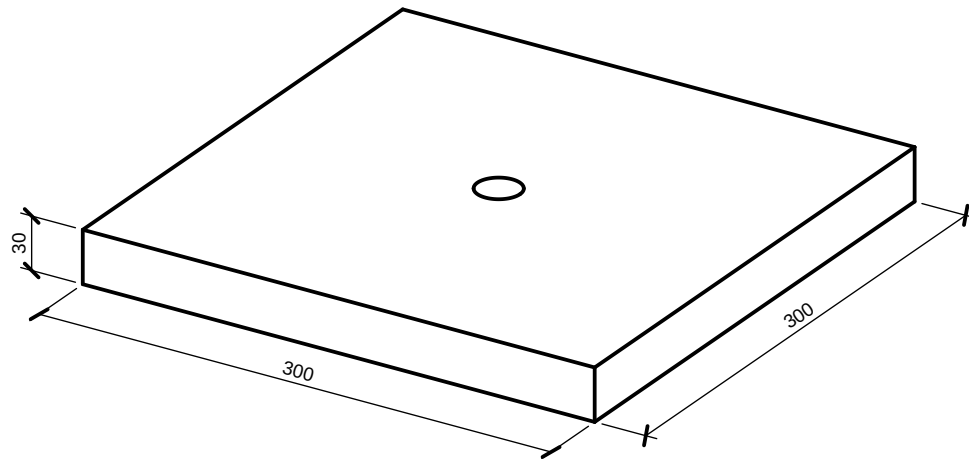


FRONT EDGE



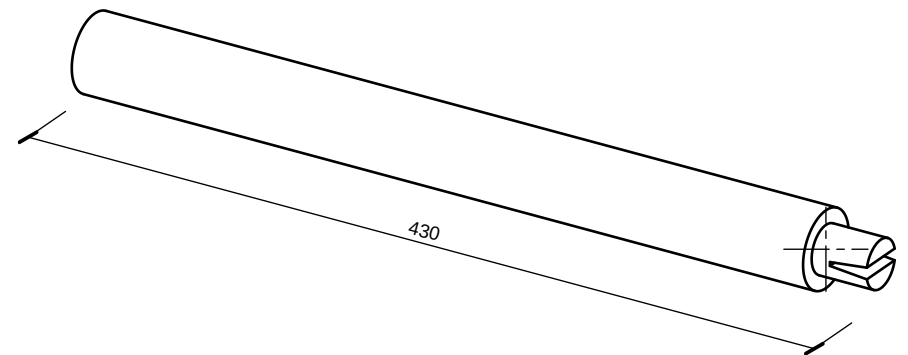
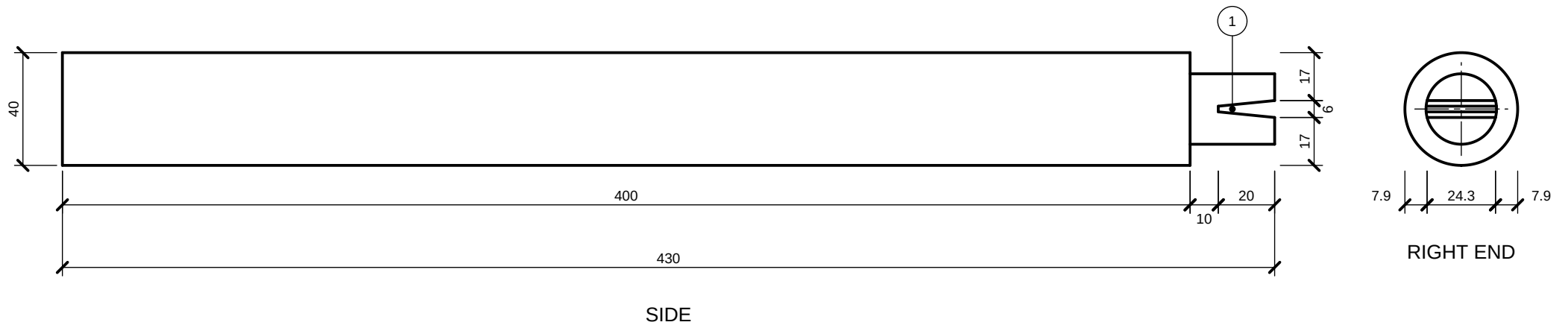
BOTTOM FACE

1 through hole $\varnothing 25$, in bottom_face



ISOMETRIC

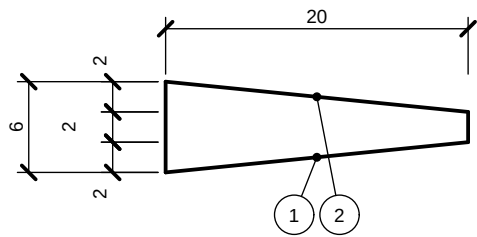
part	seat
of	wedged_round_tenon
make	1
cut size	300 x 300 x 30
material	oak
scale	1:8, mm



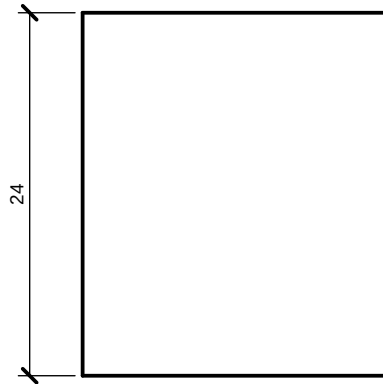
ISOMETRIC

1 round tenon $\varnothing 25$, 30 long, a saw kerf 2 mm, 20 deep, for a wedge, on right_end

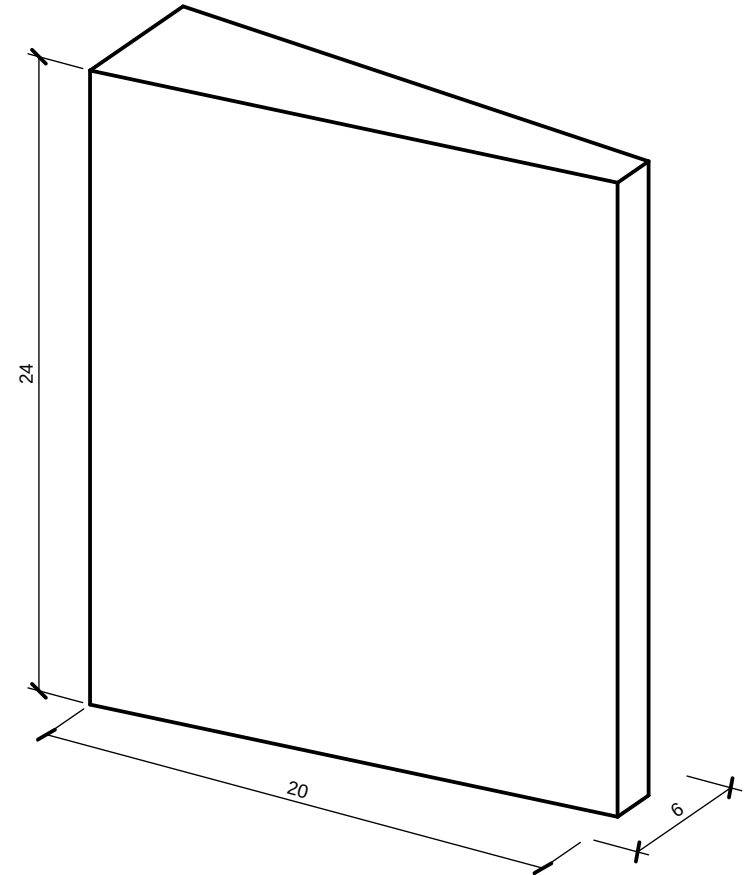
part	leg
of	wedged_round_tenon
make	1
cut size	$\varnothing 40 \times 430$
material	oak
scale	1:2, mm



TOP FACE



FRONT EDGE



ISOMETRIC

- 1 taper 2 mm on front_edge towards right_end
- 2 taper 2 mm on back_edge towards right_end

part	wedge
of	wedged_round_tenon
make	1
cut size	20 x 6 x 24
material	oak
scale	2:1, mm

Cut list

seat 300 x 300 x 30 mm oak
- through hole $\varnothing 25$, in bottom_face, centered
leg $\varnothing 40$ x 430 mm oak
- round tenon $\varnothing 25$, 30 long, a saw kerf 2 mm, 20 deep, for a wedge, on right_end
wedge 20 x 6 x 24 mm oak
- taper 2 mm on front_edge towards right_end
- taper 2 mm on back_edge towards right_end

Appendix: source

Made with woodwright 0.9.0, build123d 0.13.0, Python 3.14.4.

To make these plans again:

```
uvx --python 3.14 woodwright==0.9.0 export joints.wedged_round_tenon
```

joints.wedged_round_tenon, in woodwright/examples/joints.py

```
def wedged_round_tenon(
    leg_length: float = 400, diameter: float = 25, kerf: float = 2, flare: float = 2
) -> Assembly:
    """A round leg through a stool's seat, held by a wedge in a kerf across
    the grain of the seat.

    The wedge is two thirds of the seat long, at its head as wide as the
    kerf and the spread both ways, and 24 mm thick, so that its corners
    stay within the 25 mm tenon.
    """
    asm = Assembly("wedged_round_tenon")
    seat = asm.add(Board("seat", THICK_OAK, length=300, width=300))
    leg = asm.add(Rod("leg", ROUND_LEG_OAK, length=leg_length))
    wedge_stock = Stock.board(thickness=24, species="oak")
    wedge = asm.add(Board("wedge", wedge_stock, length=20, width=kerf + 2 * flare))
    asm.join(
        WedgedRoundMortiseTenon(
            tenon=leg.right_end, mortise=seat.bottom_face, diameter=diameter, wedge=wedge, kerf=kerf
        )
    )
    return asm
```