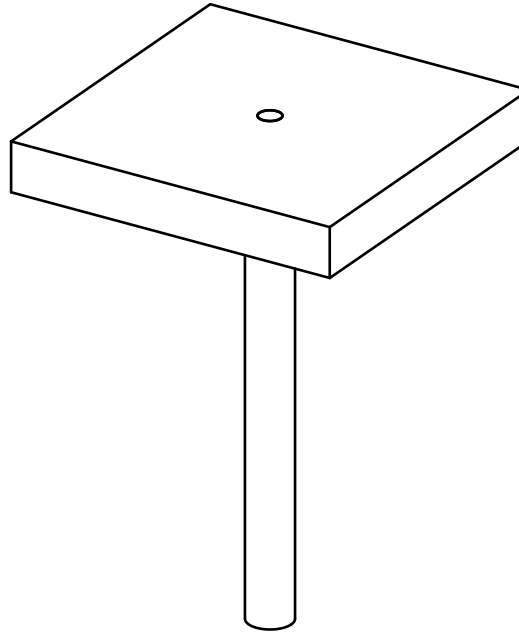


# Tapered round tenon

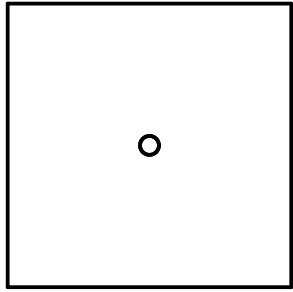
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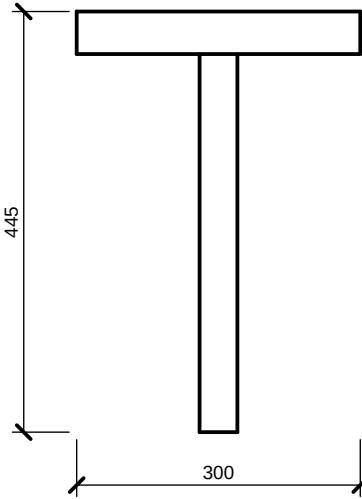
|           |                             |
|-----------|-----------------------------|
| parts     | 2                           |
| overall   | 300 x 300 x 445 (W x D x H) |
| material  | oak                         |
| date      | 2026-10-25                  |
| made with | woodwright 0.9.0            |

# Contents

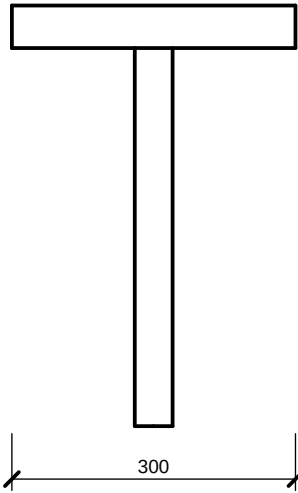
|                         |          |
|-------------------------|----------|
| <b>Drawings</b>         | <b>3</b> |
| Assembly . . . . .      | 3        |
| Parts . . . . .         | 4        |
| 1 seat . . . . .        | 5        |
| 2 leg . . . . .         | 6        |
| <b>Cut list</b>         | <b>7</b> |
| <b>Appendix: source</b> | <b>8</b> |



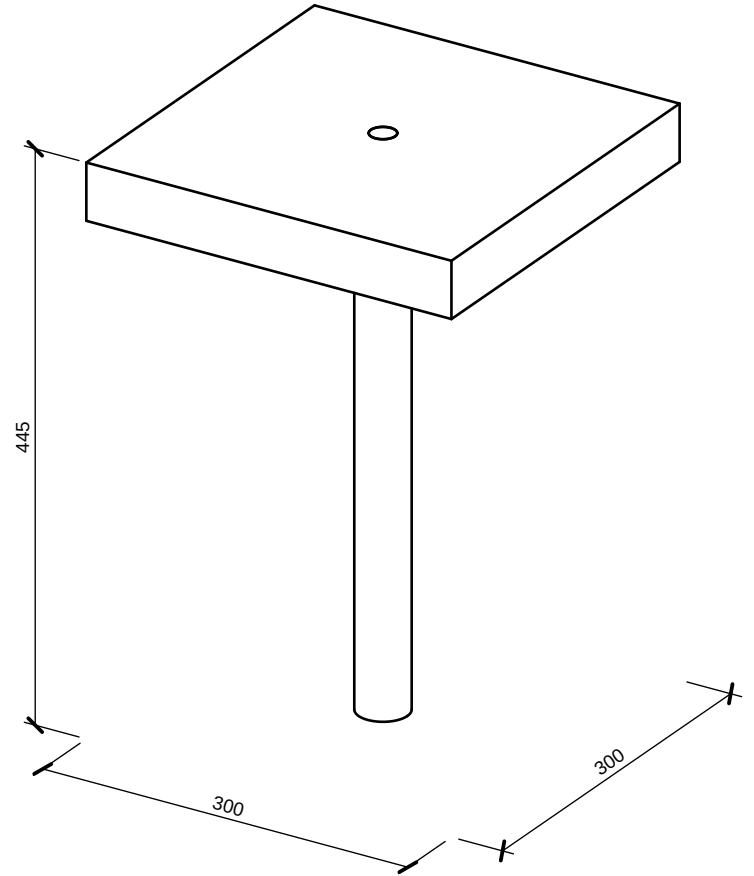
TOP



FRONT

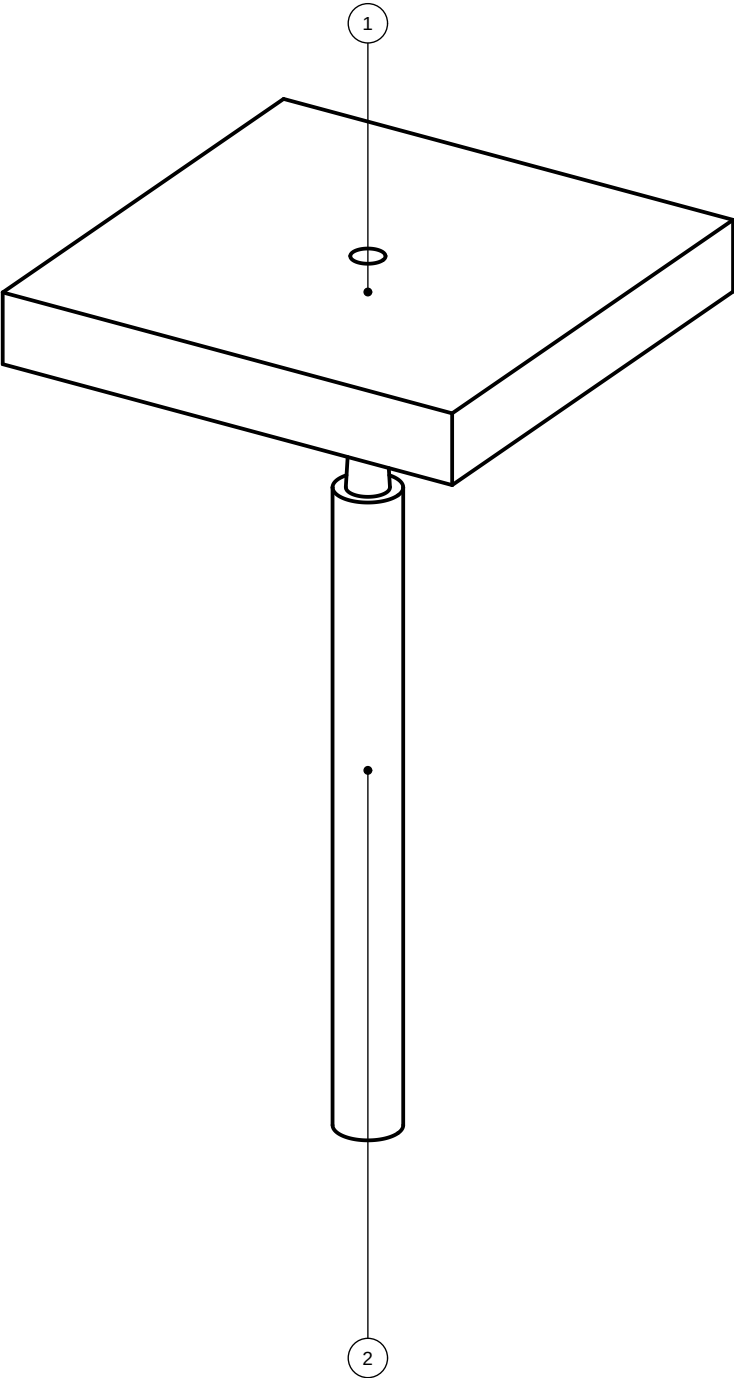


RIGHT SIDE



ISOMETRIC

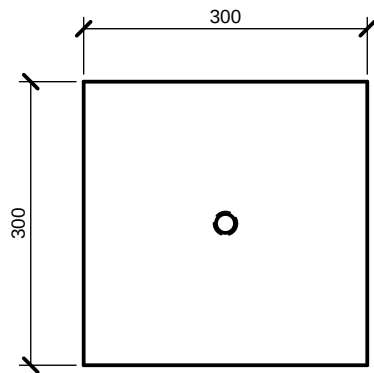
|          |                             |
|----------|-----------------------------|
| assembly | <b>tapered_round_tenon</b>  |
| parts    | 2                           |
| overall  | 300 x 300 x 445 (W x D x H) |
| material | oak                         |
| scale    | 1:8, mm                     |



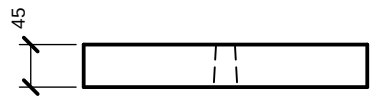
EXPLODED

| no. | part | qty | cut size (L x W x T) | material |
|-----|------|-----|----------------------|----------|
| 1   | seat | 1   | 300 x 300 x 45       | oak      |
| 2   | leg  | 1   | ø40 x 445            | oak      |

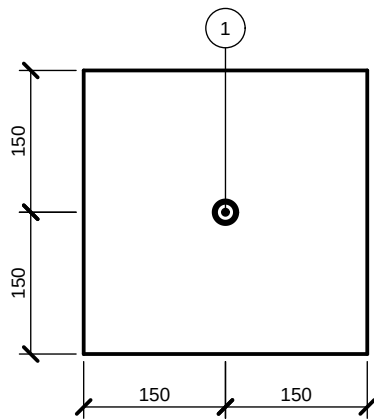
|          |                             |
|----------|-----------------------------|
| assembly | <b>tapered_round_tenon</b>  |
| parts    | 2                           |
| overall  | 300 x 300 x 445 (W x D x H) |
| material | oak                         |
| scale    | not to scale, mm            |



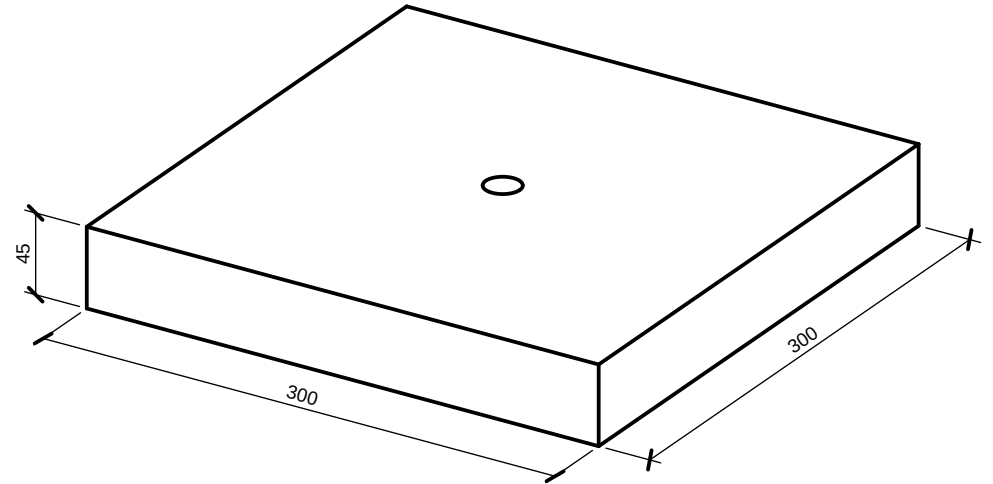
TOP FACE



FRONT EDGE



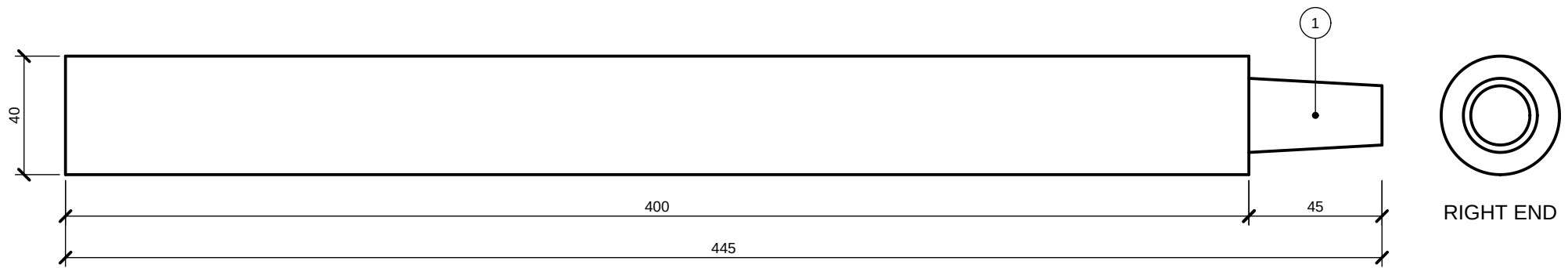
BOTTOM FACE



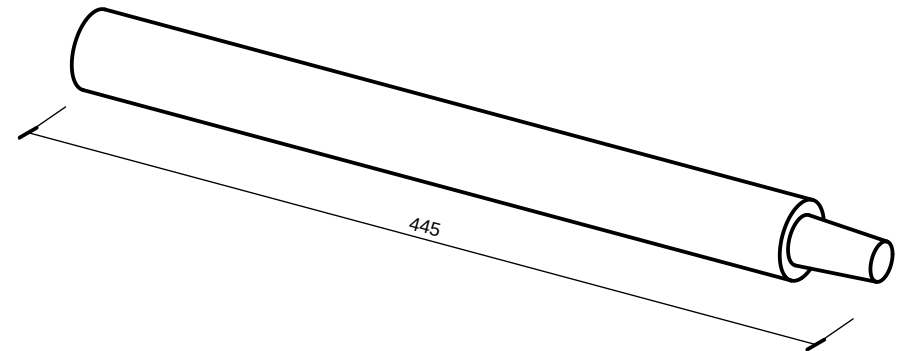
ISOMETRIC

1 through tapered hole  $\varnothing 25$  to  $\varnothing 20$ , in bottom\_face

|          |                     |
|----------|---------------------|
| part     | <b>seat</b>         |
| of       | tapered_round_tenon |
| make     | 1                   |
| cut size | 300 x 300 x 45      |
| material | oak                 |
| scale    | 1:8, mm             |



SIDE



ISOMETRIC

1 round tenon  $\varnothing 25$ , 45 long, tapered to  $\varnothing 20$ , on right\_end

|          |                             |
|----------|-----------------------------|
| part     | <b>leg</b>                  |
| of       | tapered_round_tenon         |
| make     | 1                           |
| cut size | $\varnothing 40 \times 445$ |
| material | oak                         |
| scale    | 1:2, mm                     |

## Cut list

seat 300 x 300 x 45 mm oak  
- through tapered hole  $\varnothing 25$  to  $\varnothing 20$ , in bottom\_face, centered  
leg  $\varnothing 40$  x 445 mm oak  
- round tenon  $\varnothing 25$ , 45 long, tapered to  $\varnothing 20$ , on 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.tapered_round_tenon
```

### **joints.tapered\_round\_tenon, in woodwright/examples/joints.py**

```
def tapered_round_tenon(
    leg_length: float = 400, diameter: float = 25, tip_diameter: float = 20
) -> Assembly:
    """A round leg with a tapered tenon through a tapered (reamed) hole in a
    seat, as in a Windsor chair (not splayed yet)."""
    asm = Assembly("tapered_round_tenon")
    seat = asm.add(Board("seat", LEG_STOCK, length=300, width=300))
    leg = asm.add(Rod("leg", ROUND_LEG_OAK, length=leg_length))
    asm.join(
        RoundMortiseTenon(
            tenon=leg.right_end,
            mortise=seat.bottom_face,
            diameter=diameter,
            tip_diameter=tip_diameter,
            length=45,
        )
    )
    return asm
```