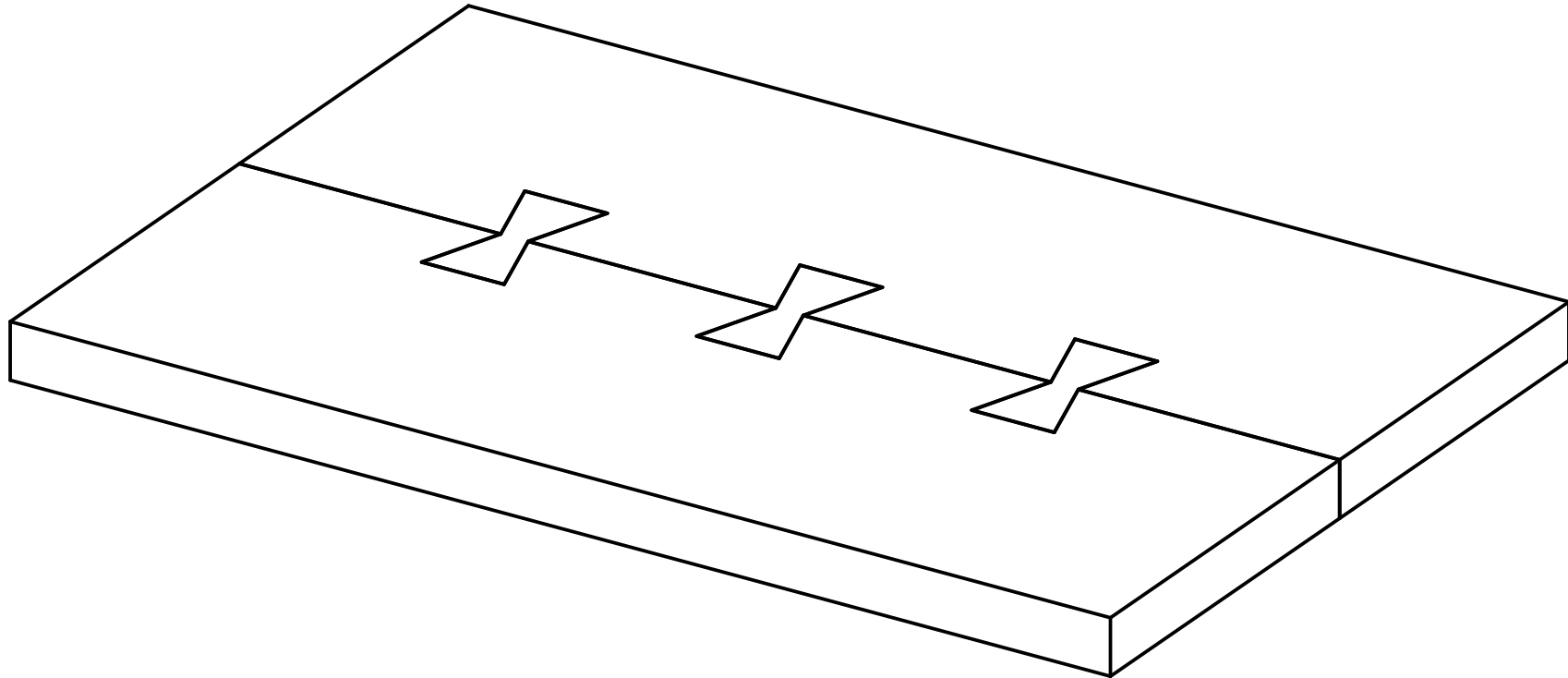


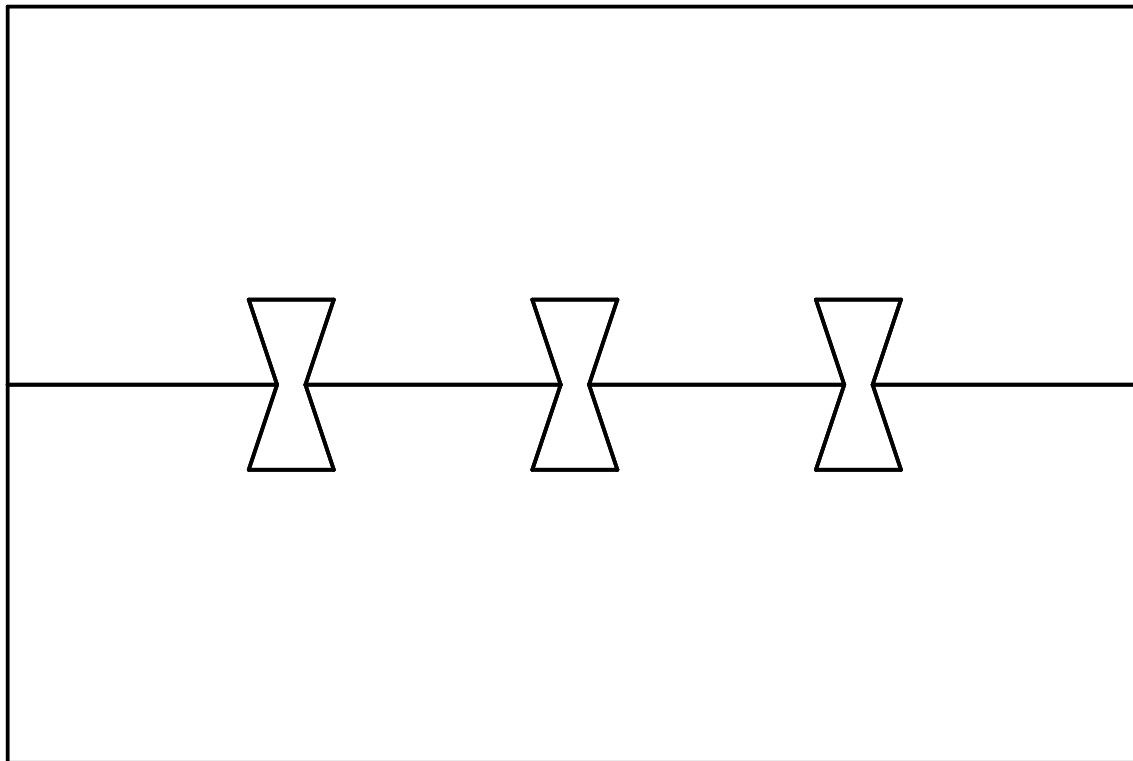
Butterfly joint



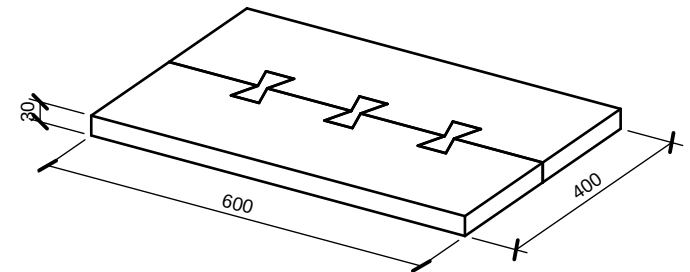
parts	5 (2 different)
overall	600 x 400 x 30 (W x D x H)
material	oak, walnut
date	2026-10-25
made with	woodwright 0.9.0

Contents

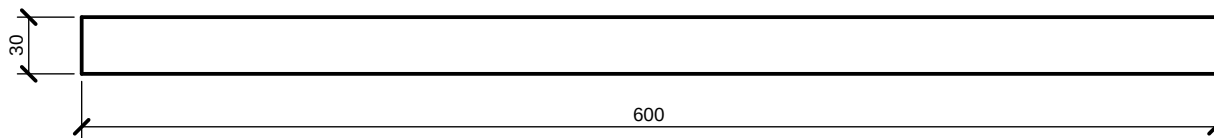
Drawings	3
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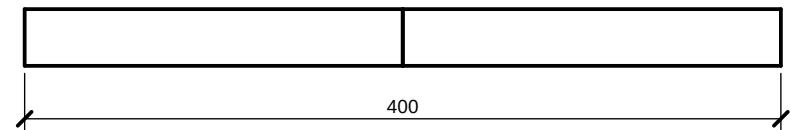
TOP



ISOMETRIC

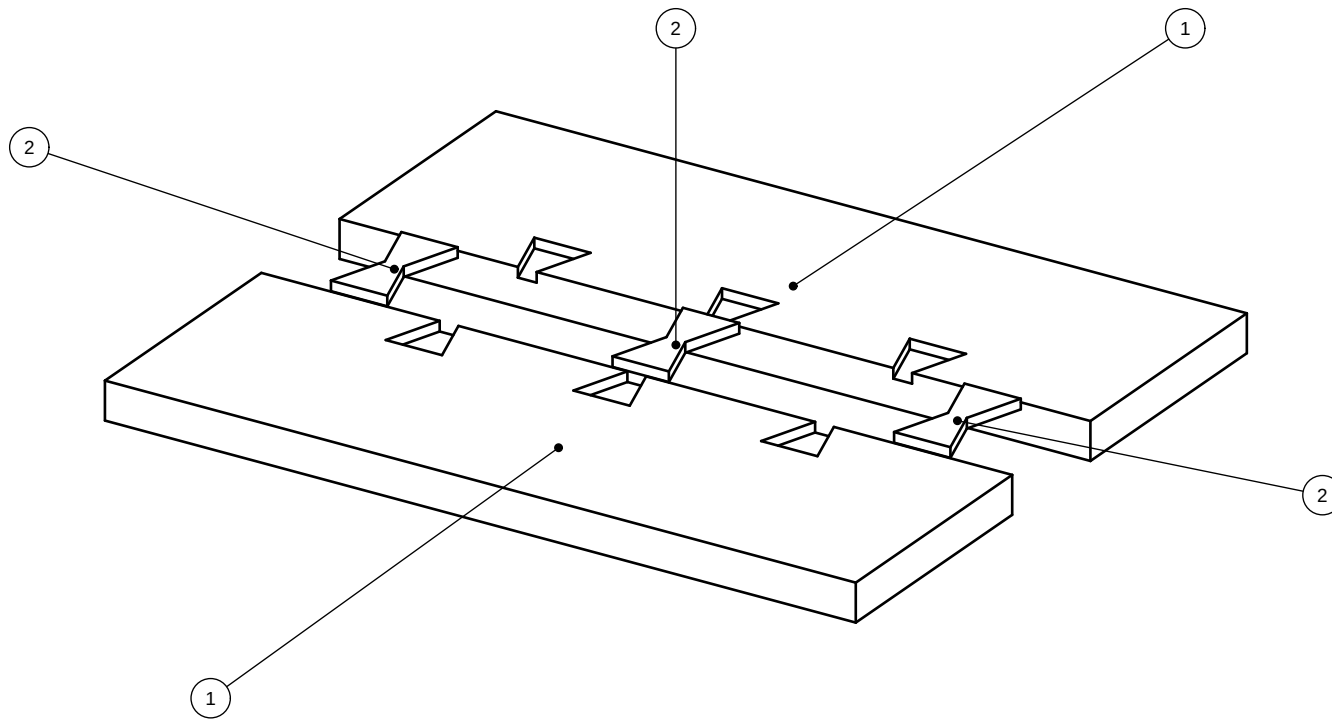


FRONT



RIGHT SIDE

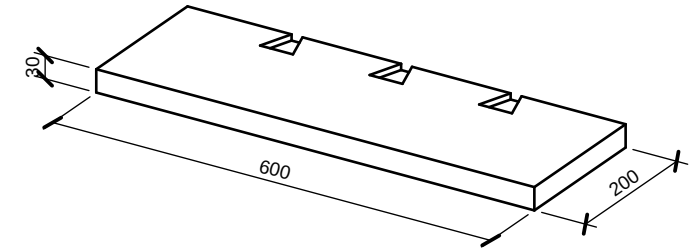
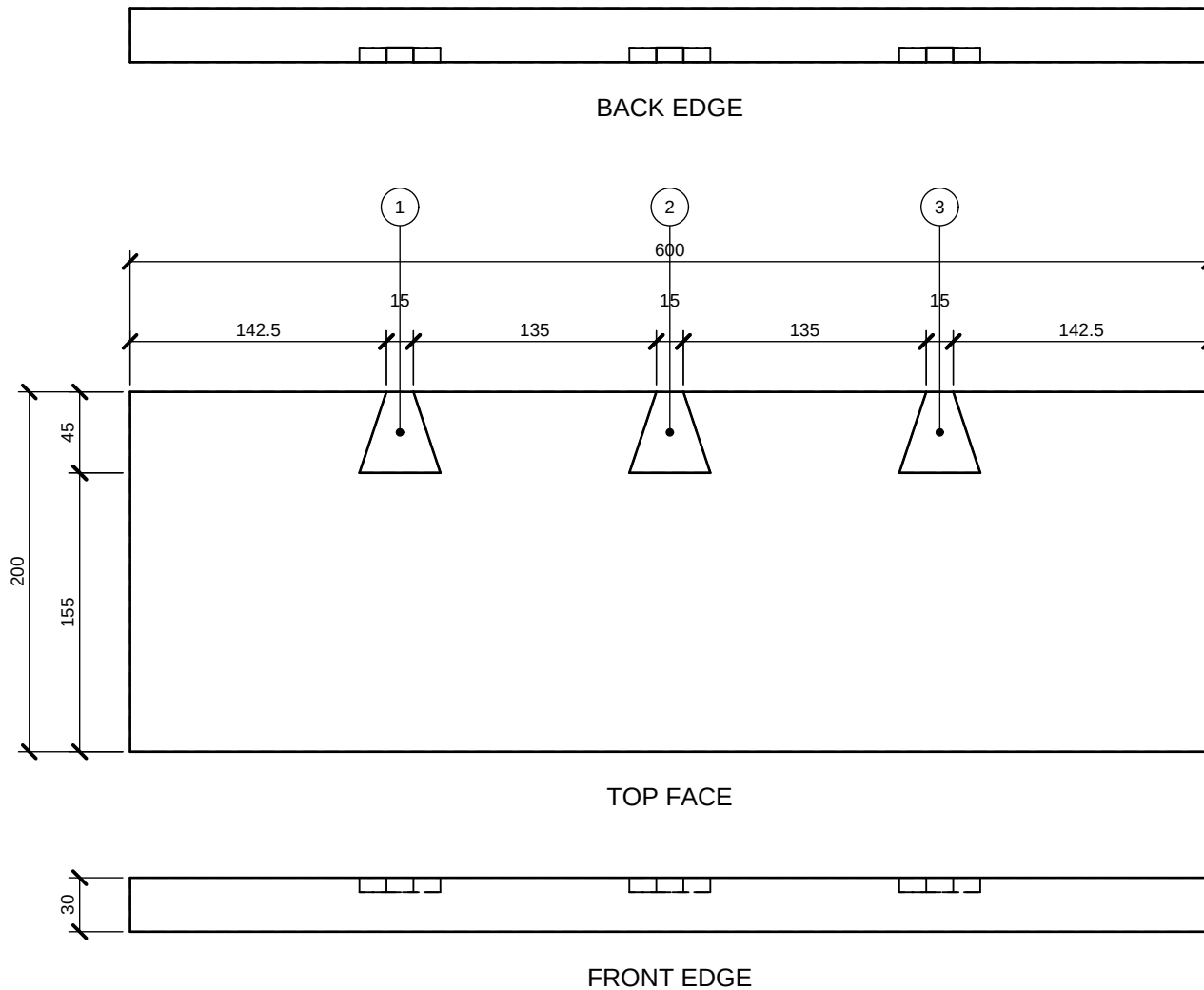
assembly	butterfly_joint
parts	5 (2 different)
overall	600 x 400 x 30 (W x D x H)
material	oak, walnut
scale	1:4, mm



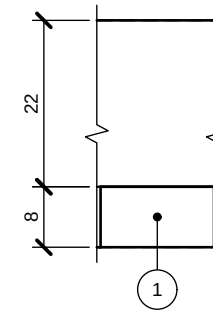
EXPLODED

no.	part	qty	cut size (L x W x T)	material
1	slab	2	600 x 200 x 30	oak
2	key	3	90 x 45 x 8	walnut

assembly	butterfly_joint
parts	5 (2 different)
overall	600 x 400 x 30 (W x D x H)
material	oak, walnut
scale	not to scale, mm



ISOMETRIC

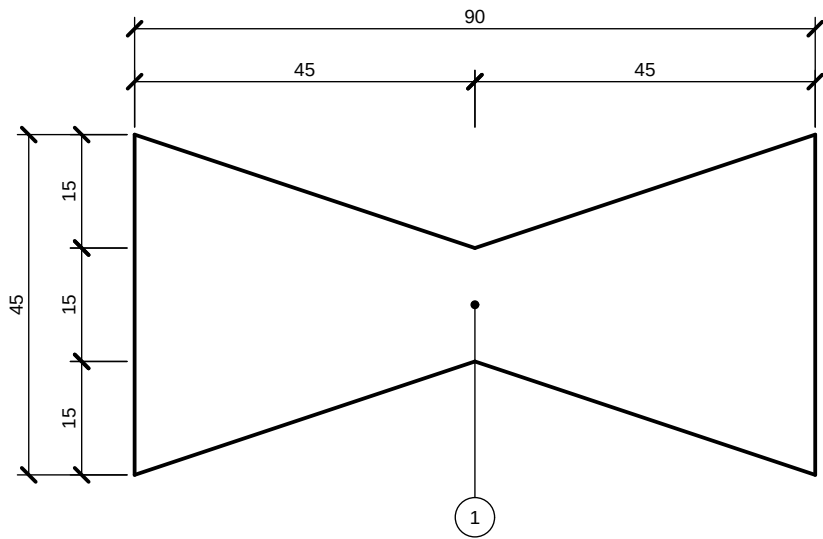


BACK EDGE: 1-3 1:1

2 pieces: slab_1, slab_2

- 1 butterfly mortise 90 x 45 mm, waist 15, 8 deep, in top_face, 150 from left_end, 0 from back_edge, across the joint with slab_2
- 2 butterfly mortise 90 x 45 mm, waist 15, 8 deep, in top_face, 300 from left_end, 0 from back_edge, across the joint with slab_2
- 3 butterfly mortise 90 x 45 mm, waist 15, 8 deep, in top_face, 450 from left_end, 0 from back_edge, across the joint with slab_2

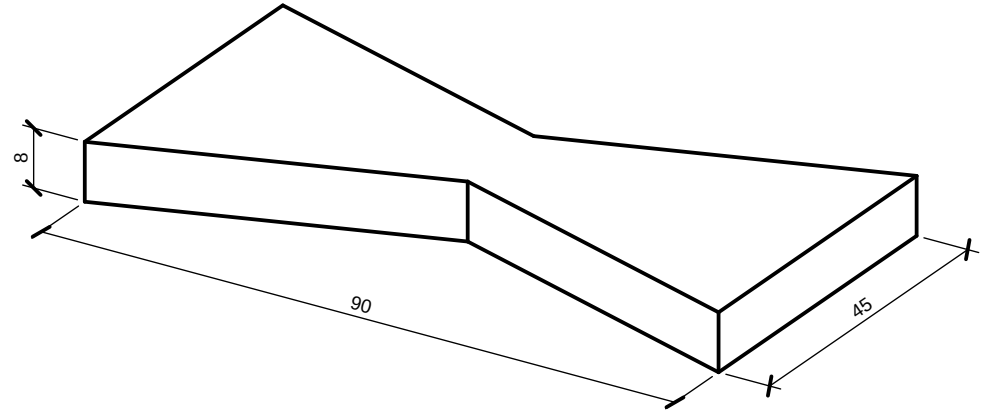
part	slab
of	butterfly_joint
make	2
cut size	600 x 200 x 30
material	oak
scale	1:4, mm



TOP FACE



FRONT EDGE



ISOMETRIC

3 pieces: key_1, key_2, key_3

1 shaped to a butterfly, waist 15 mm

part	key
of	butterfly_joint
make	3
cut size	90 x 45 x 8
material	walnut
scale	1:1, mm

Cut list

slab 600 x 200 x 30 mm oak, 2 pieces: slab_1, slab_2

- butterfly mortise 90 x 45 mm, waist 15, 8 deep, in top_face, 150 from left_end, 0 from back_edge, across the joint with slab_2
- butterfly mortise 90 x 45 mm, waist 15, 8 deep, in top_face, 300 from left_end, 0 from back_edge, across the joint with slab_2
- butterfly mortise 90 x 45 mm, waist 15, 8 deep, in top_face, 450 from left_end, 0 from back_edge, across the joint with slab_2

key 90 x 45 x 8 mm walnut, 3 pieces: key_1, key_2, key_3

- shaped to a butterfly, waist 15 mm

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.butterfly_joint
```

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

```
def butterfly_joint(length: float = 600, width: float = 200, stock: Stock = THICK_OAK) -> Assembly:
    """Two slabs butted edge to edge, held by three butterfly keys across
    the joint (as in a live-edge table top), inlaid flush into the top faces,
    half of each key in each slab."""
    asm = Assembly("butterfly_joint")
    a = asm.add(Board("slab_1", stock, length=length, width=width))
    b = asm.add(Board("slab_2", stock, length=length, width=width))
    asm.join(Butt(a.back_edge, b.front_edge))
    for i in range(3):
        key = asm.add(Board(f"key_{i + 1}", BUTTERFLY_WALNUT, length=90, width=45))
        at = {a.left_end: length * (i + 1) / 4, a.back_edge: 0}
        asm.join(Butterfly(a.top_face, key, at=at, other=b.top_face))
    return asm
```