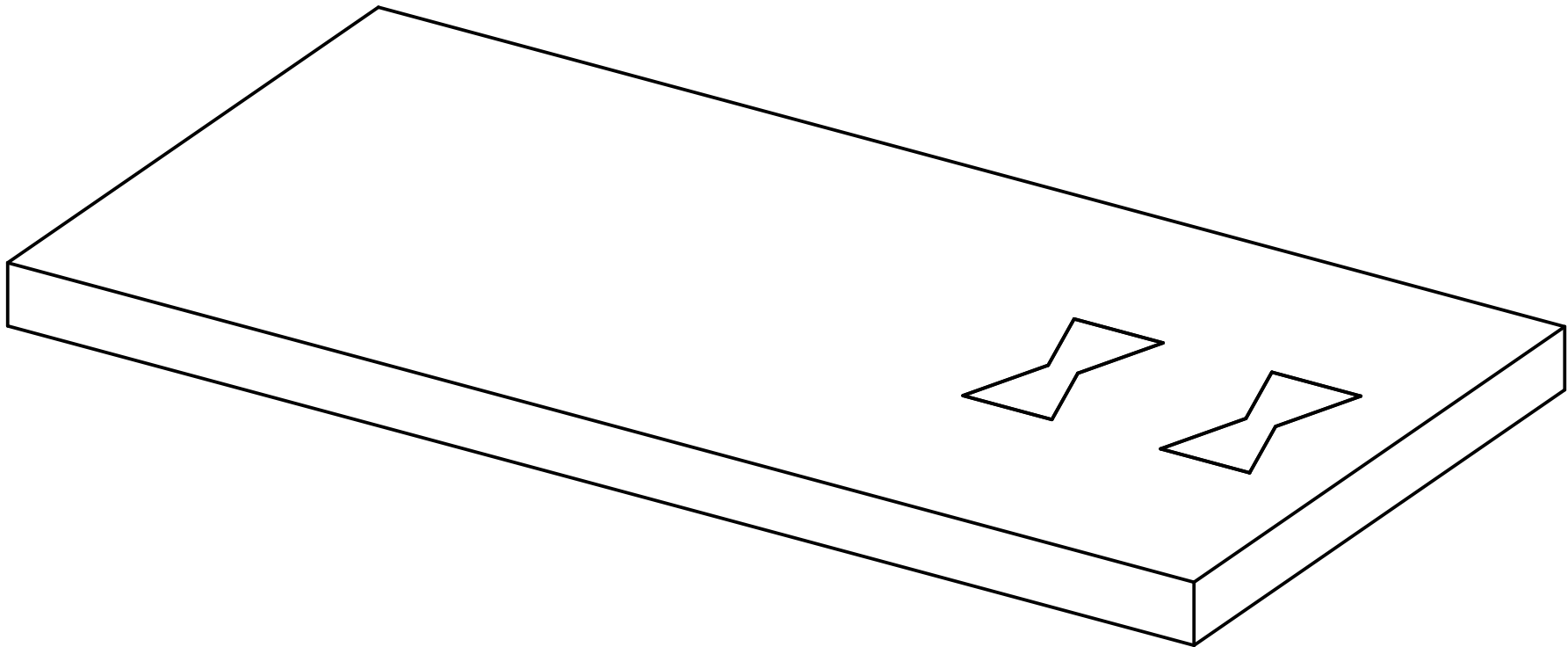


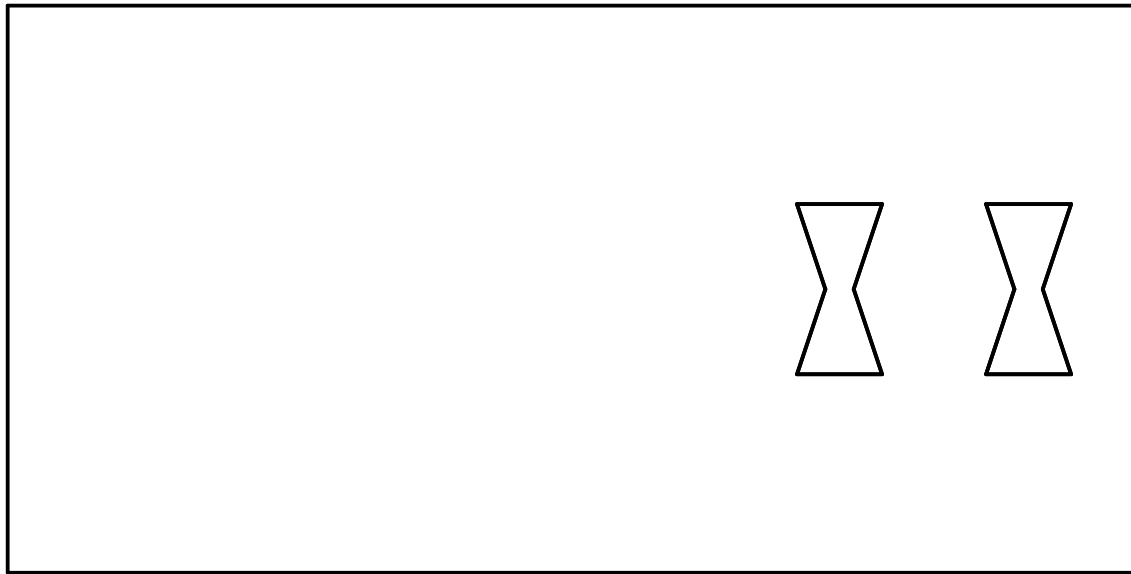
Butterfly crack



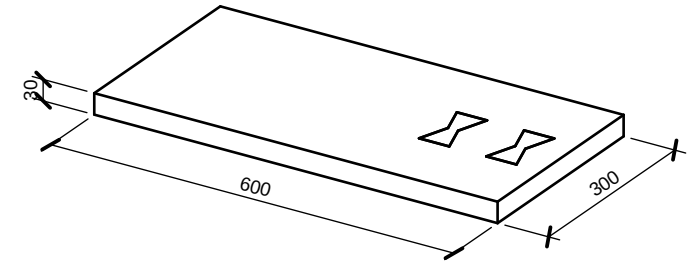
parts	3 (2 different)
overall	600 x 300 x 30 (W x D x H)
material	oak, walnut
date	2026-10-25
made with	woodwright 0.9.0

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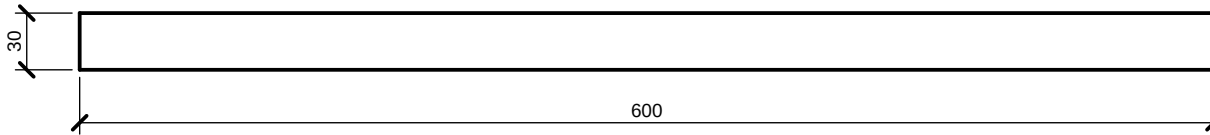
Drawings	3
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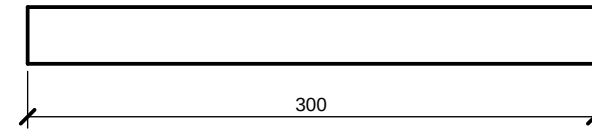
TOP



ISOMETRIC

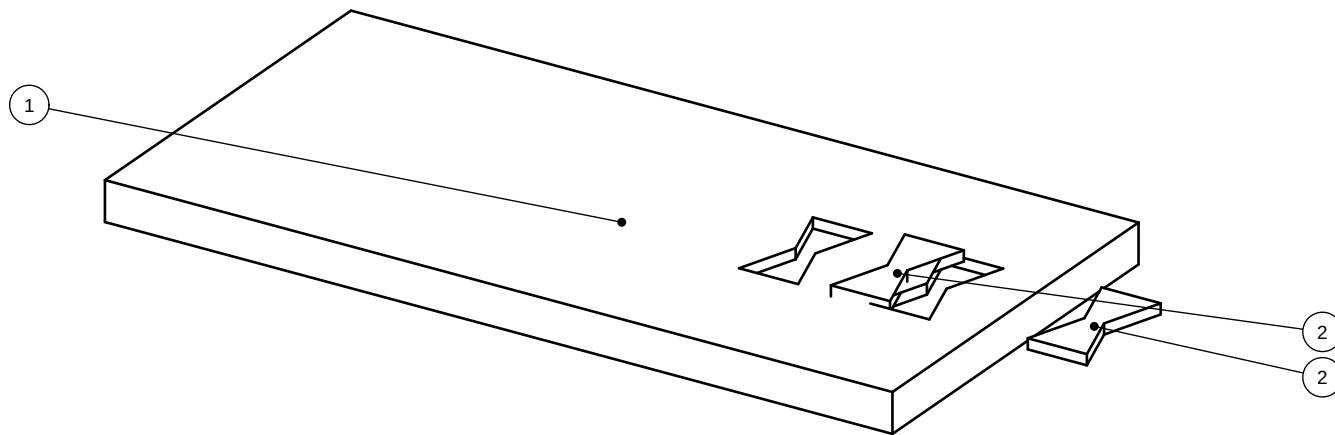


FRONT



RIGHT SIDE

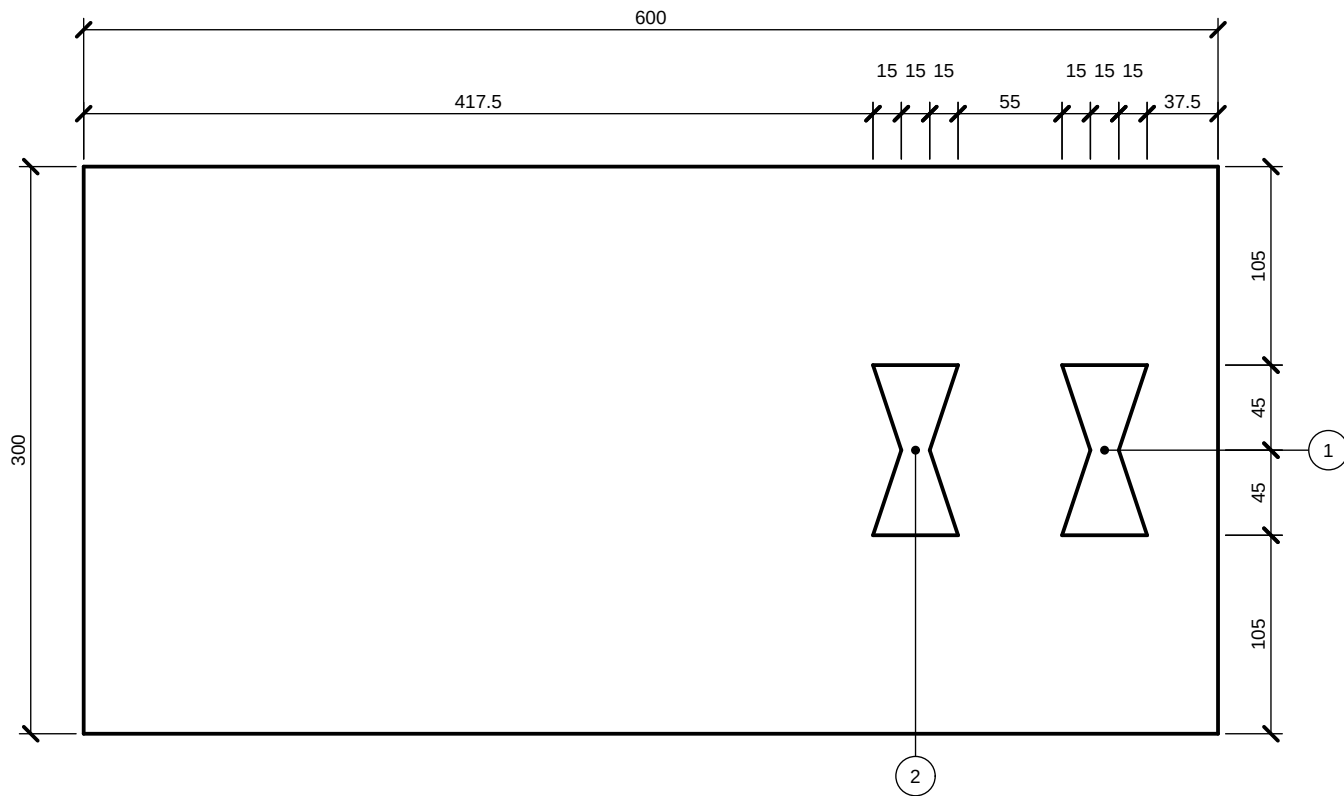
assembly	butterfly_crack
parts	3 (2 different)
overall	600 x 300 x 30 (W x D x H)
material	oak, walnut
scale	1:4, mm



EXPLODED

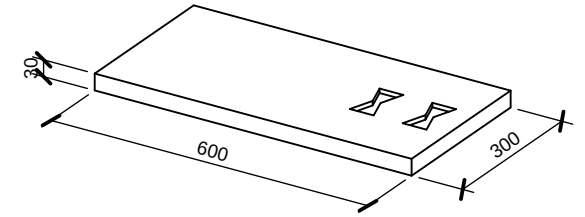
no.	part	qty	cut size (L x W x T)	material
1	slab	1	600 x 300 x 30	oak
2	key	2	90 x 45 x 8	walnut

assembly	butterfly_crack
parts	3 (2 different)
overall	600 x 300 x 30 (W x D x H)
material	oak, walnut
scale	not to scale, mm

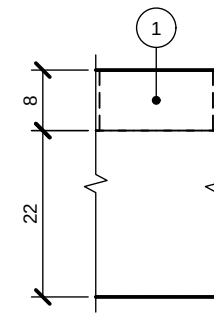


TOP FACE

FRONT EDGE



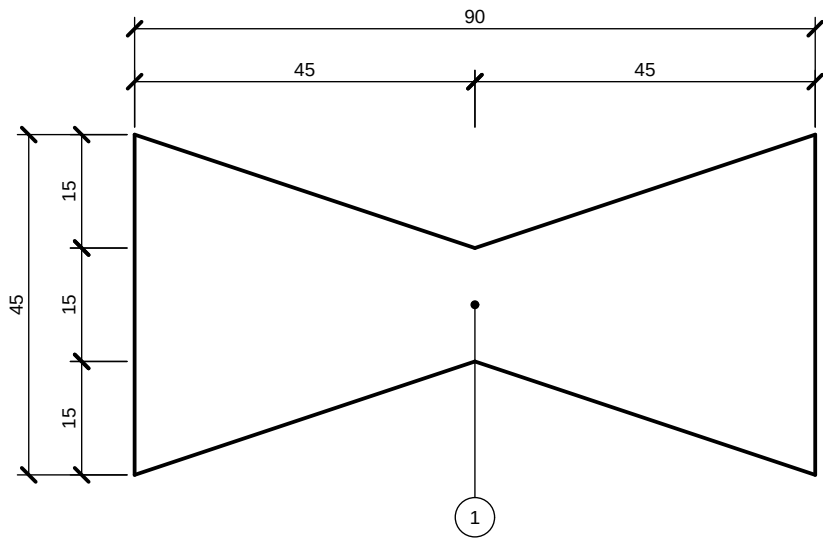
ISOMETRIC



FRONT EDGE: 1, 2 1:1

- 1 butterfly mortise 90 x 45 mm, waist 15, 8 deep, in top_face, 60 from right_end, centered
- 2 butterfly mortise 90 x 45 mm, waist 15, 8 deep, in top_face, 160 from right_end, centered

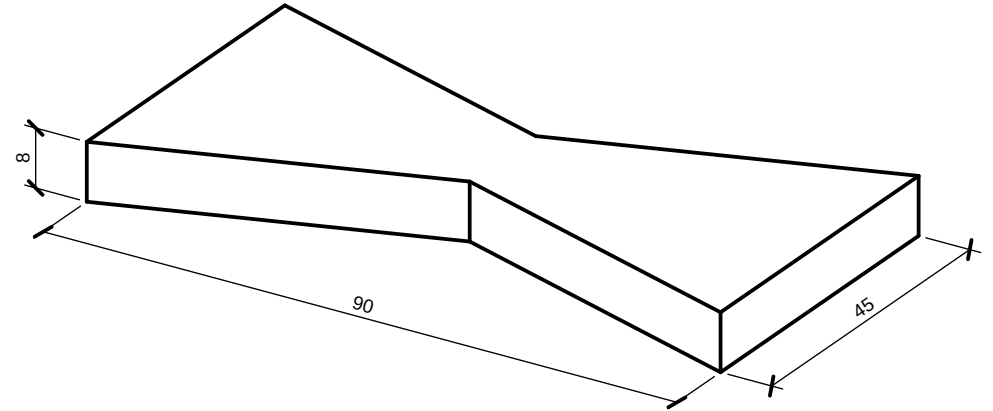
part	slab
of	butterfly_crack
make	1
cut size	600 x 300 x 30
material	oak
scale	1:4, mm



TOP FACE



FRONT EDGE



ISOMETRIC

2 pieces: key_1, key_2

1 shaped to a butterfly, waist 15 mm

part	key
of	butterfly_crack
make	2
cut size	90 x 45 x 8
material	walnut
scale	1:1, mm

Cut list

slab 600 x 300 x 30 mm oak
- butterfly mortise 90 x 45 mm, waist 15, 8 deep, in top_face, 60 from right_end, centered
- butterfly mortise 90 x 45 mm, waist 15, 8 deep, in top_face, 160 from right_end, centered
key 90 x 45 x 8 mm walnut, 2 pieces: key_1, key_2
- 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_crack
```

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

```
def butterfly_crack(length: float = 600, width: float = 300, stock: Stock = THICK_OAK) -> Assembly:
    """Two butterfly keys holding a crack running in from the end of a slab.

    The keys, walnut 90 x 45 mm at the ends, 15 mm at the waist, 8 mm
    thick, lie across the grain (and the crack), inlaid flush into mortises
    in the top face, 60 and 160 mm from the right end. The crack itself
    isn't modelled.
    """
    asm = Assembly("butterfly_crack")
    slab = asm.add(Board("slab", stock, length=length, width=width))
    for i, distance in enumerate((60, 160)):
        key = asm.add(Board(f"key_{i + 1}", BUTTERFLY_WALNUT, length=90, width=45))
        asm.join(Butterfly(slab.top_face, key, at={slab.right_end: distance}))
    return asm
```