

## Application No. 816: Maulstick for painters and restorers

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### Supports the hand during painting and retouching

#### Bachelor thesis on the maulstick (2016)

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The maulstick is a tool for painters and restorers that supports the hand during painting or retouching.

The use of different maulstick models was reviewed in the Bachelor thesis. The "hand rest after Demuth/Heiber" and the "painter's stick after Zirlewagen" were further developed using a magnet construct. For optimisation purposes, the magnets were arranged in a way that ensured the maulstick could be fastened temporarily in the desired position but also easily moved around. The maulstick with magnets offers a much higher flexibility and more convenience than classic models.



#### Requirements for magnetic maulstick

The conceptual design paid particular attention to two aspects:

- The magnets need to be sufficiently strong to withstand the vertical force of the resting retouching hand.
- Despite the magnetic hold, the position needs to be slightly adjustable vertically.



#### The following solution was found:

- The L-shaped piece **(A)** was equipped with 20 neodymium magnets.
- On the vertical stick **(C)** and the cross ledge **(B)** sheet iron was attached.
- The front side of the painting holder **(D)** was equipped with a magnetic strip.



#### Three-dimensional regulation

The distance to the picture surface, the vertical position as well as the height of the stick can now be adjusted through the magnetic force.

Hence, the maulstick offers painters and restorers the maximal support for their work.

## Individual components in greater detail

**(A) L-shaped piece:** Made of beechwood with 20 embedded disc magnets 12 x 10 mm ([www.supermagnete.fr/eng/S-12-10-N](http://www.supermagnete.fr/eng/S-12-10-N)) (4 in the front & 16 on the bottom side). For better removal and adjustment of the parts, the magnets were embedded with a 1 mm overlay, which results in an air gap that allows the counterpart to be tilted and the magnetic force to be disabled easier.

**(B) Cross ledge:** Made of beechwood with a glued-on sheet metal strip. To protect it from rusting, the strip was previously coated with a clear varnish. Subsequently drilled holes serve to securely fasten it on the easel.

**(C) Maulstick:** Made of beechwood, also equipped with sheet metal strips.

**(D) Painting holder:** Features a self-adhesive neodymium magnetic tape (NMT-20-STIC ([www.supermagnete.fr/eng/NMT-20-STIC](http://www.supermagnete.fr/eng/NMT-20-STIC))) on the front, so the maulstick can be perfectly fastened.

## Conclusion

The maulstick with magnets consists of few, easy to build individual parts. Only the exact drilling requires more skills.

The magnets adhere beautifully. Contrary to other tested models, turning the L-shaped piece helps connect also the short side with the cross ledge. Hence, this model may be used for all easel formats and positions.

The hand rest with magnets, compared to other tested maulsticks, seems to be the most convenient, non-contact system - for building as well as application. It can be used for all formats and positions and is sufficiently stable.

The hand rest with magnets should now be repeatedly tested for retouching and painting. If it proves itself valuable, it may be recommended for any work on easel paintings and complemented with additional accessories.

## Articles used

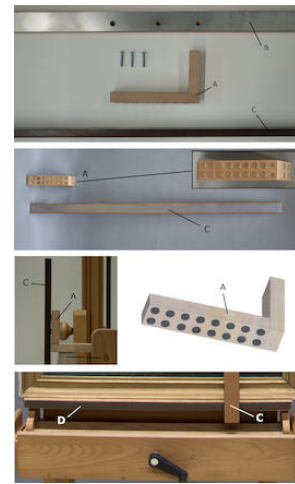
20 x S-12-10-N: Disc magnet Ø 12 mm, height 10 mm ([www.supermagnete.fr/eng/S-12-10-N](http://www.supermagnete.fr/eng/S-12-10-N))

1 x NMT-20-STIC: Magnetic adhesive tape neodymium 20 mm ([www.supermagnete.fr/eng/NMT-20-STIC](http://www.supermagnete.fr/eng/NMT-20-STIC))

M-FERROTAPE: Metal strip self-adhesive white ([www.supermagnete.fr/eng/M-FERROTAPE](http://www.supermagnete.fr/eng/M-FERROTAPE))

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The individual parts from different perspectives.