

Illustrated construction manual: The Magic Lantern

© Michael Monscheuer

<https://michelswunderland.de/solderiron/laterna.html>



The manageable number of components makes for a quick construction progress. Besides the shown glues and tools, super glue with long delay and a string cutter for the cables were used.



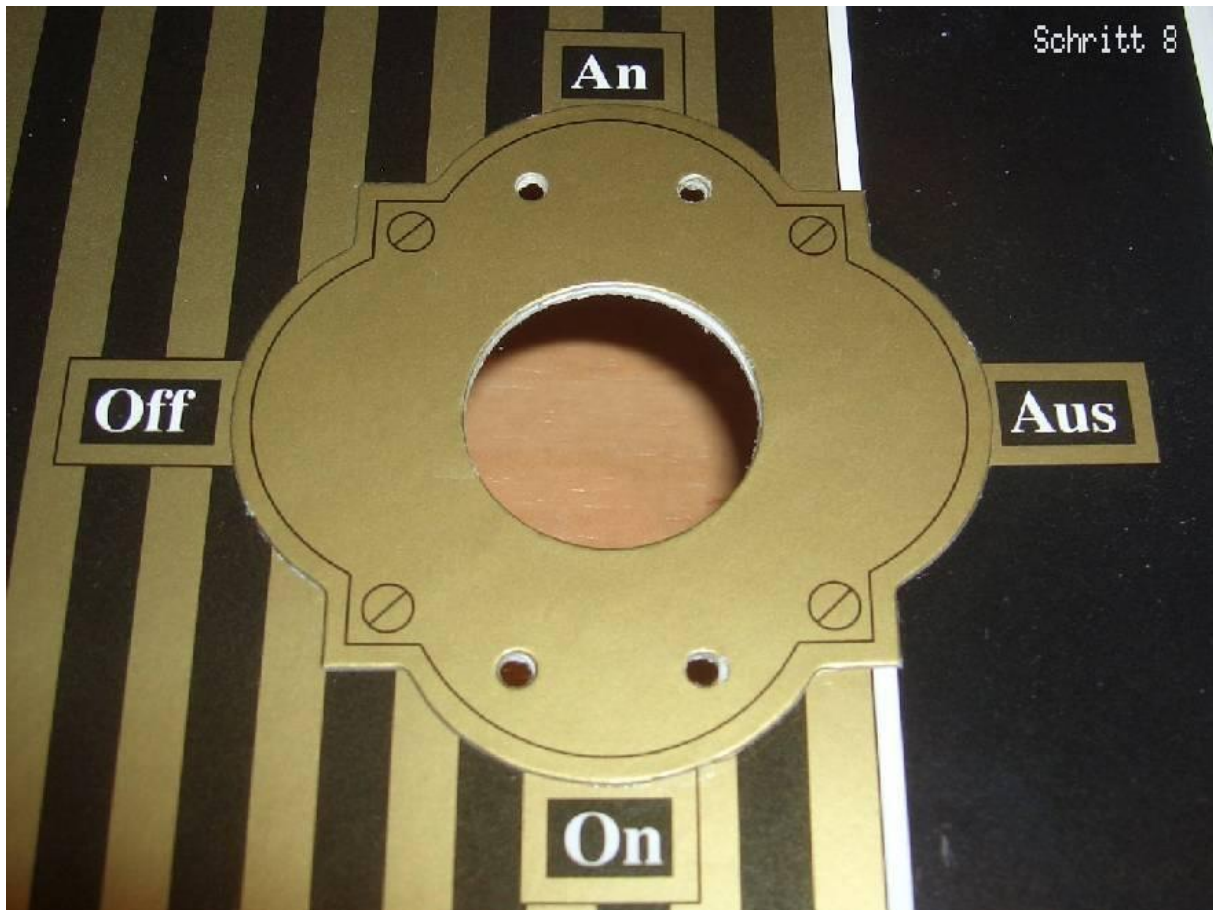
Steps 1 & 2: Preparing the walls of the housing, which will be glued later.



Steps 3 – 6: The development of the door handle and its installation.



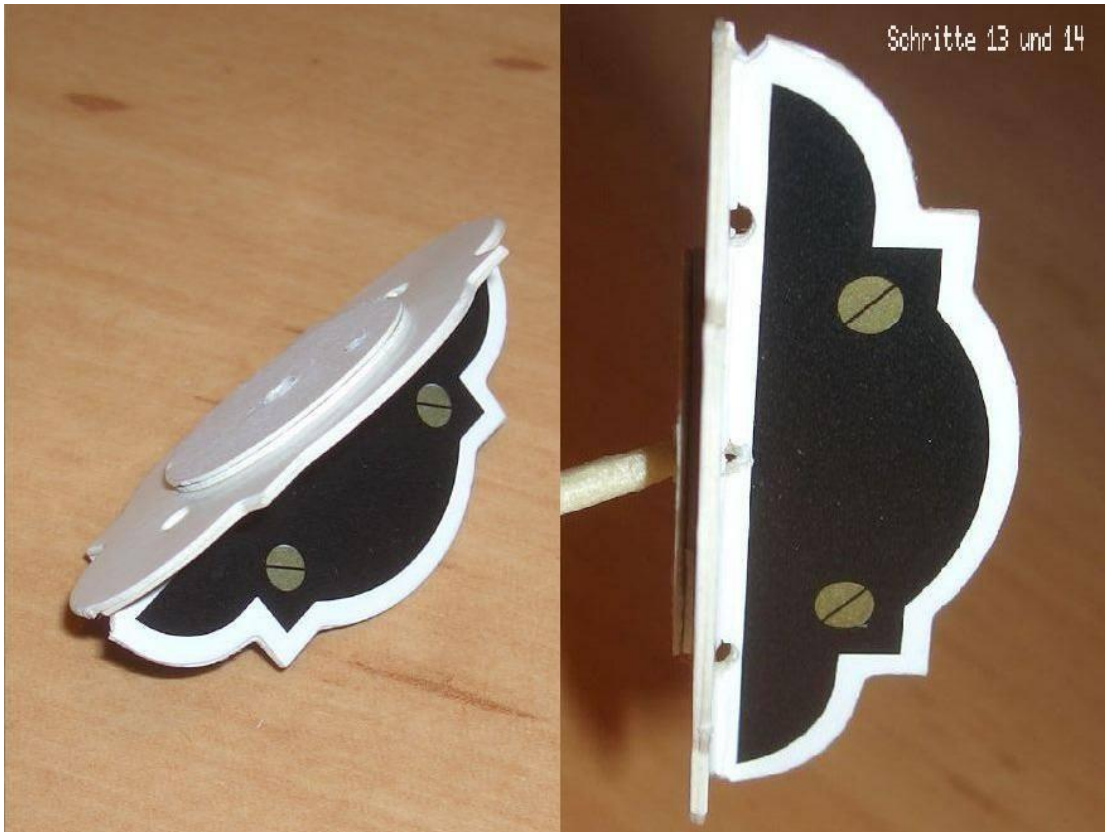
Step 7: The door handle reinforcement on the inside.



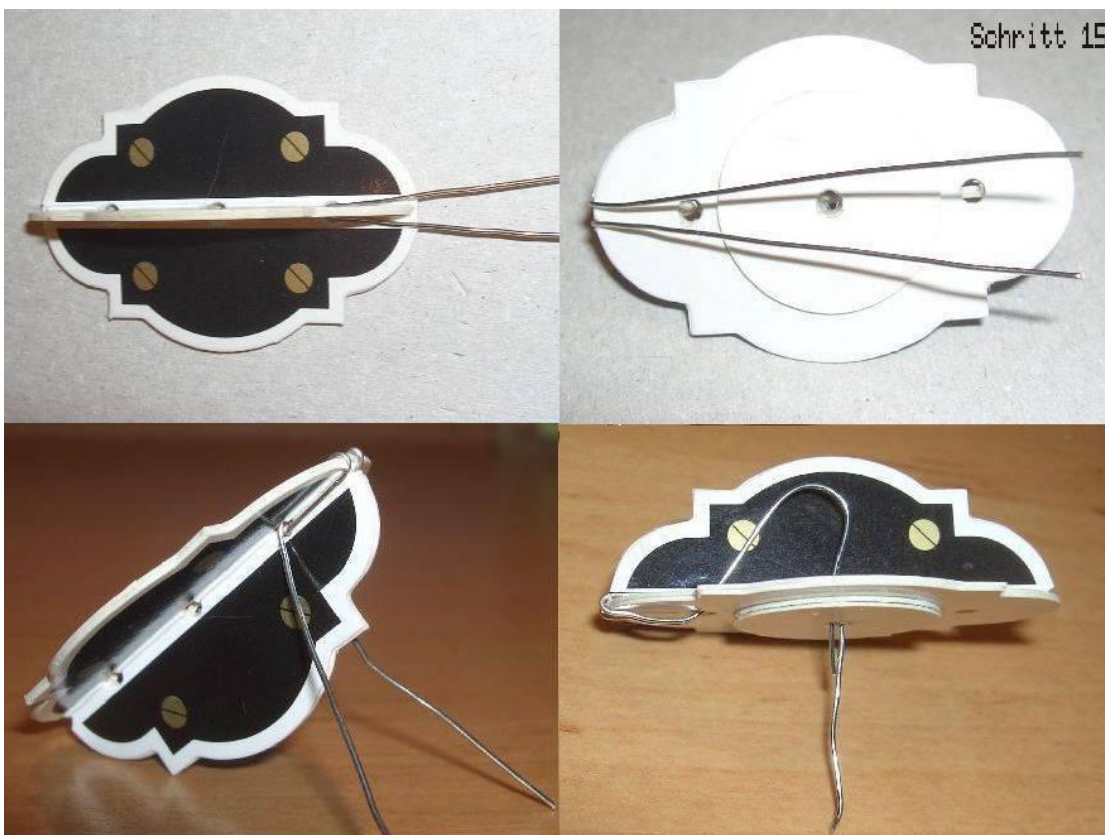
Step 8: The wall reinforcement of the light switch.



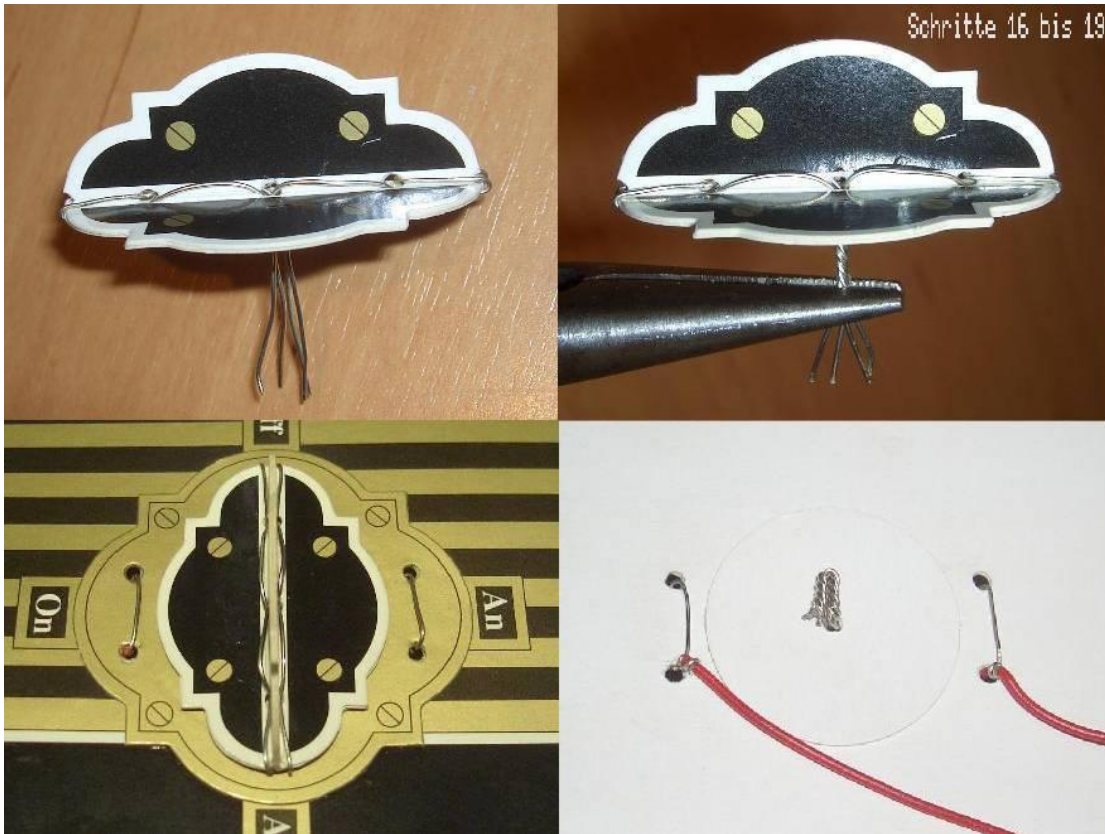
Steps 9 – 12: Attachment of the contacts on the lamp and battery side of the switch in the housing.



Steps 13 & 14: The switch handle



Step 15: Installing the switch contacts (1) in the switch handle.



Steps 16 – 19: Installation of the switch contacts (2) and the switch handle in the housing.

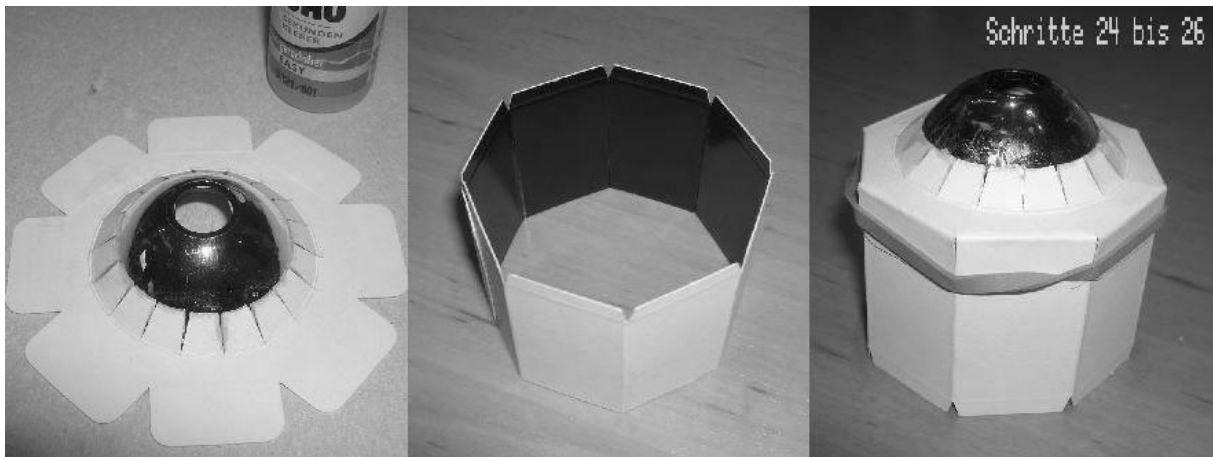


Step 20: Glueing the side walls to the housing.

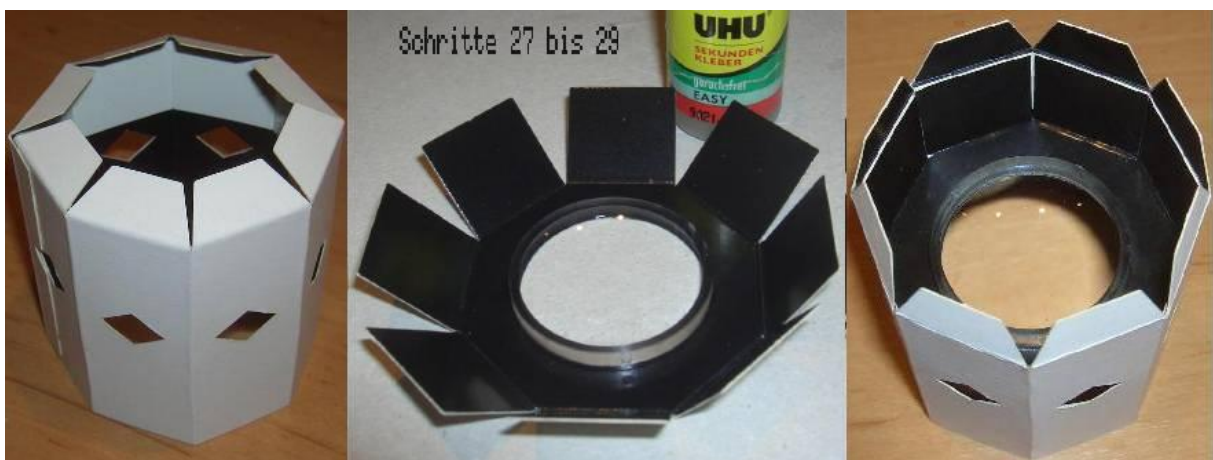


Steps 21 – 23: The creation of the base plate - here we deviated from the building instructions:

Instead of glueing the housing directly onto the cardboard base plate, a small board made of poplar plywood and finished with shellac matting, clear varnish and matte black paint was used to provide the housing with a base.



Steps 24 – 26: The construction of the reflector - using super glue for the plastic part (unfortunately a bit colourless due to operator error).



Steps 27 – 29: The creation of the condenser (1) - also with partial use of superglue.



Steps 30 & 31: The creation of the condenser (2) and its installation in the housing.



Steps 32 – 34: The individual parts of the picture holder and their placement on the housing.



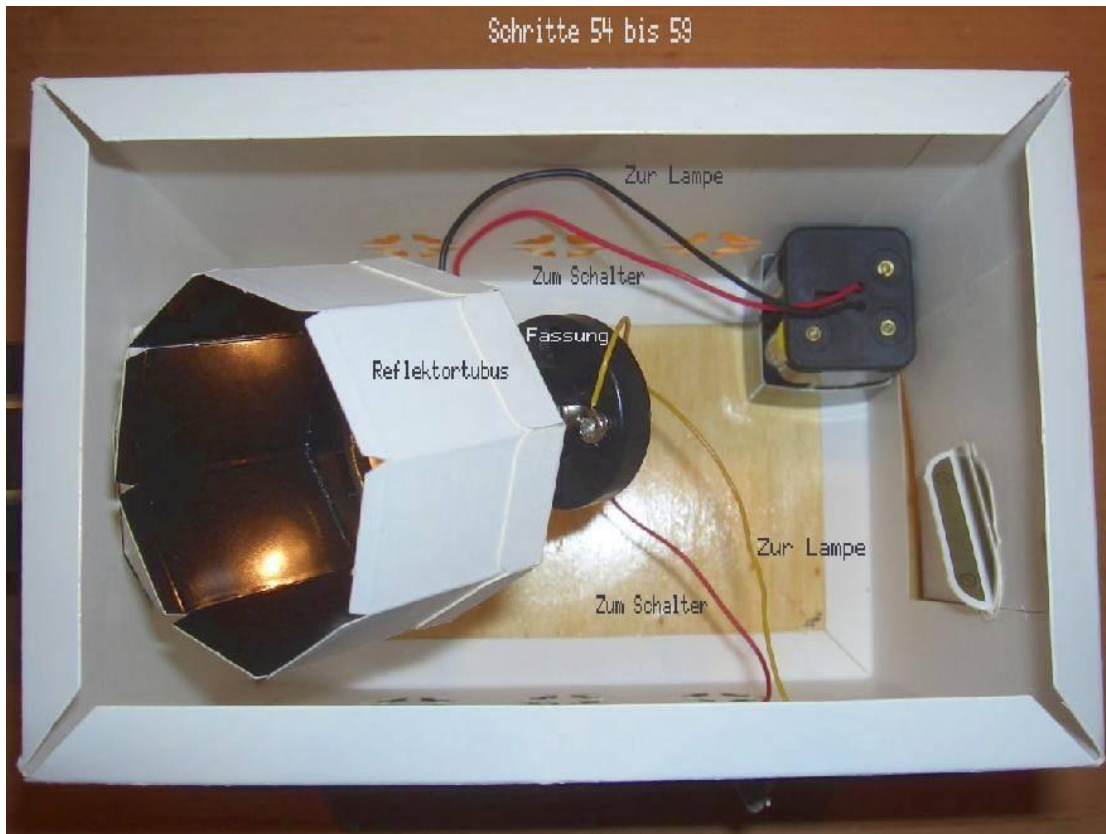
Steps 35 – 37: The lens - The large tube with lens and its holder.



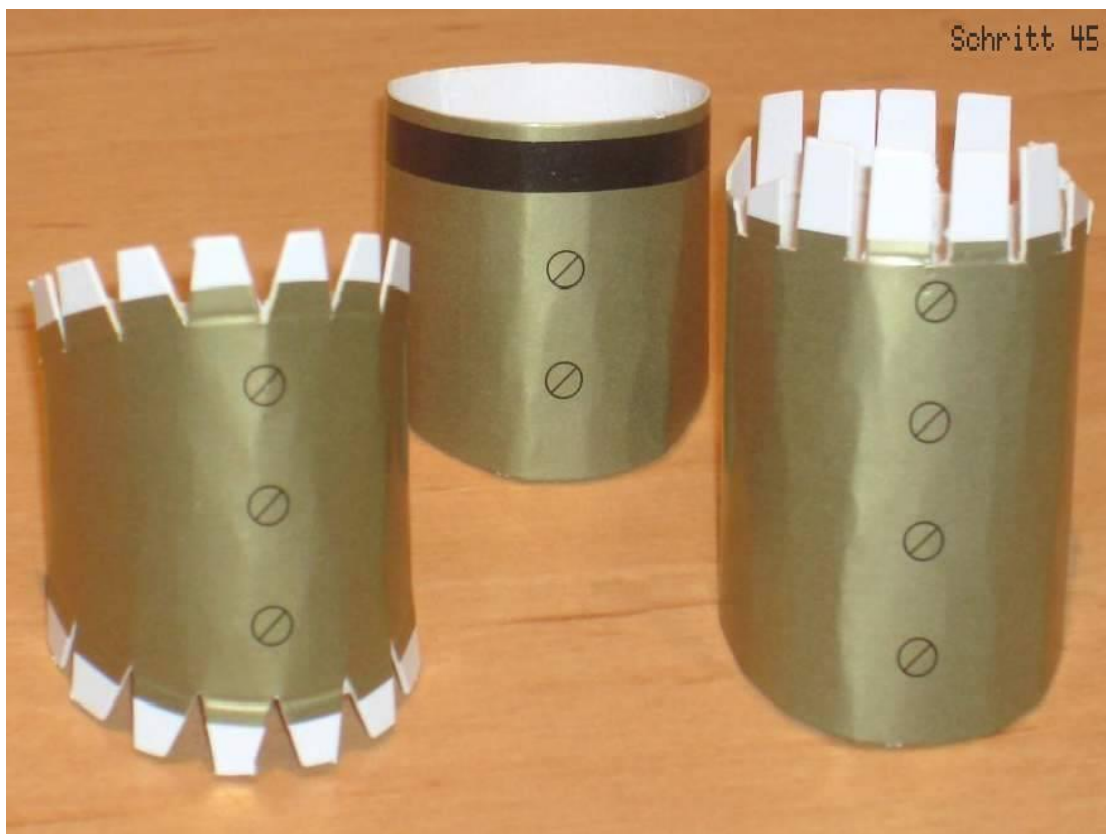
Steps 38 & 39: Attachment of the large lens barrel to the housing with the reinforcement collar.



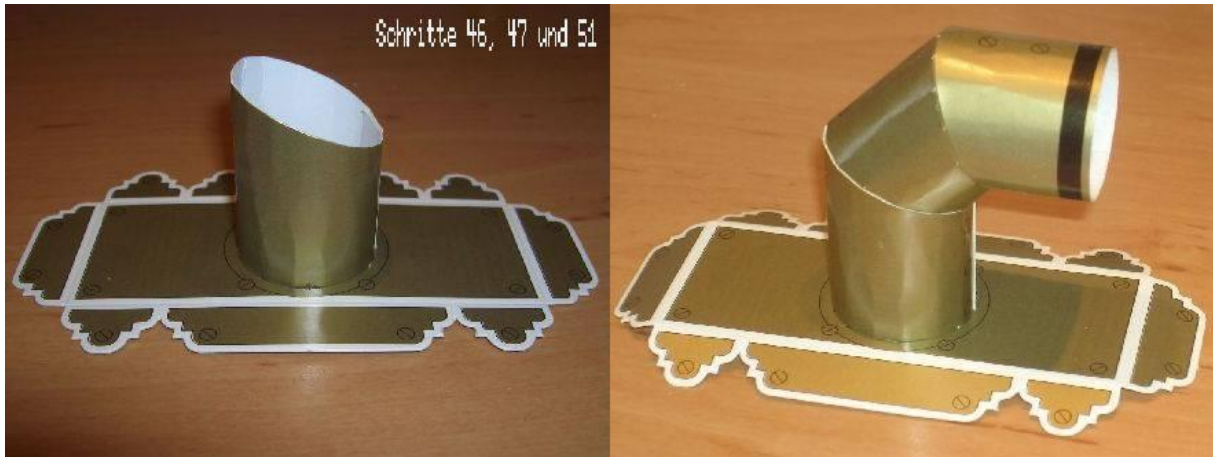
Steps 40 – 44: The construction of the small lens barrel. Again superglue was used to fix the lens.



Steps 54 – 59: Installation of lamp and battery. Steps 54 to 59 were brought forward because installing the lamp and battery without the roof seemed easier from above than from behind through the smaller door.



Step 45: The three individual parts of the chimney - rounded and glued together to form pipes.



Steps 46, 47 & 51: Glueing the lower part of the chimney to the upper part of the roof and attaching the other two chimney parts.

This procedure, which deviated from the instructions, seemed easier than first assembling the roof completely.



Steps 48 – 50 & 53: The glueing of the side parts of the roof was done slightly different from the instructions. First, all four parts were joined together, which makes it easier to glue them together to form a three-dimensional body (only one glue joint).

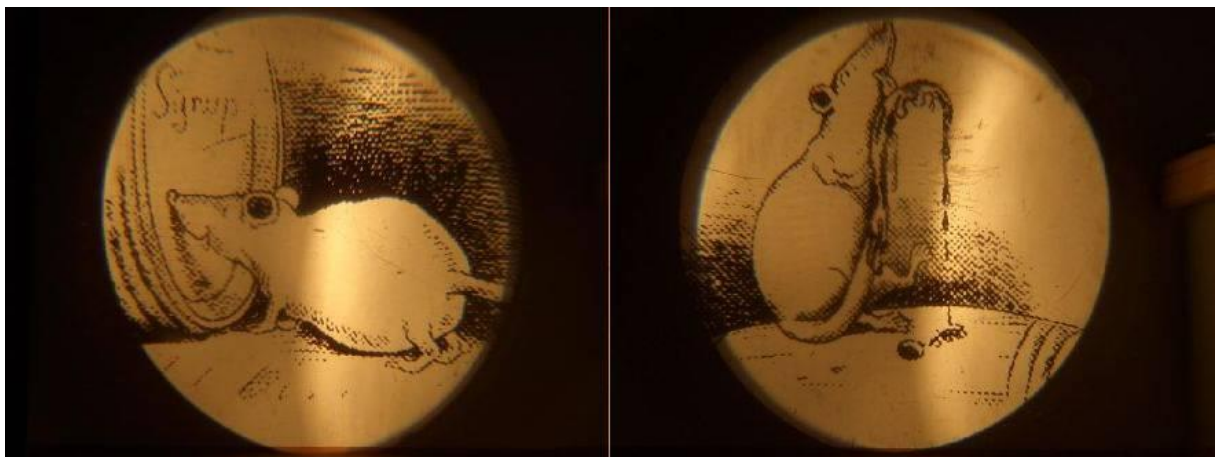


Step 52: Finally, the roof with the chimney was glued on. The completed Laterna Magica after only a short construction time.

Done !

and then ...

The first projection:



A frighteningly clear and sharp projection !

One wonders why Zeiss & Co. are still able to sell slide projectors.

Image strips with a maximum width of 40mm and a maximum thickness of 1.1mm can be used.

The kit can be adapted for thicker material.

