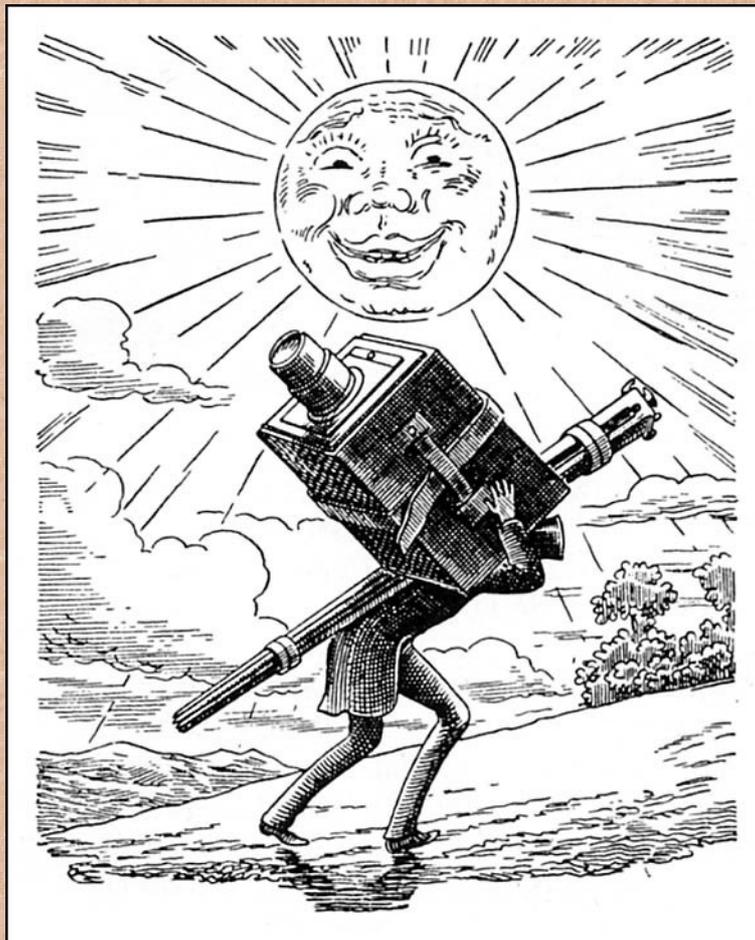




A DO-IT-YOURSELF PORTABLE DARKBOX



for the processing of
WET COLLODION PLATES

René Smets
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A PORTABLE DARKBOX FOR THE PROCESSING OF WET COLLODION PLATES.

A few years ago, when I started with the wet collodion process, I dreamed I could also do this "in the field". This obviously requires to be able to install a darkroom on site.

Lacking experience, I built at that time a box with a red filter, a door and with two peepholes. After some tests, I realized that this was not the ideal solution, as the workspace was too small, and especially the field of vision too narrow. The sensitive plates being very fragile, I had a rate of failure of about 80 %.

Now, ten years later, I am more experienced and I thought that I should be able to do better in building an "ideal darkbox".

To begin with, I tried to summarize the requirements which it should meet:

A. MOBILITY.

The darkroom has to be easily movable, but at the same time spacious enough to comfortably manipulate the plates without damage. This implies that it must be possible to fold it up.

B. FOLDING AND LIGHT-TIGHT.

We do obviously not want to see our plates fogged because of light leaks or an inadequate filter being installed on the window. To darken a folding box is not so simple, and requires to resort to light-blocking sieves and to rubber sealing strips. Hinges must also be made light-tight.

On the other hand, one needs enough light when working. For that purpose, a Rubylith® filter (red) is the most adequate. There is also an Amberlith® filter (orange), with slightly different properties. I found and therefore used the orange filter, but I had to add a UV filter to avoid fogging. This orange filter is sold in stores of photographic lighting equipment; as for the UV self-adhesive filters, they can be found in DIY stores, in the department with window-protection foils.

C. A WORKTABLE.

The most comfortable is to be able to work upright, while having a tablet available to clean plates and pour the collodion.

Practical implementation.

Before beginning the construction itself, I put all my ideas on paper, by means of some sketches. In order to free as much workspace as possible, I placed all the containers (developer, water, silver nitrate, fixer) outside the box. What it should look like is shown in the following sketches:

[\[Sketch A \]](#) - [\[Sketch B \]](#) - [\[Sketch C \]](#)

(Click the links above: this will lead you to the corresponding appendix)

For standing work, a table is ideal, but it has to be foldable.

See [\[Sketch D \]](#)

The box itself can also be folded up.

See [\[Sketch A \]](#)

The whole must be easily transportable, and should therefore be equipped with wheels.

See [\[Sketch E \]](#)

1. THE DARKBOX.

(Editor's note: the pictures were taken from a larger series; their numbers do not form a continuous suite any more)

The darkroom consists of a front and a rear panel with a collapsible body between them. See picture 2.

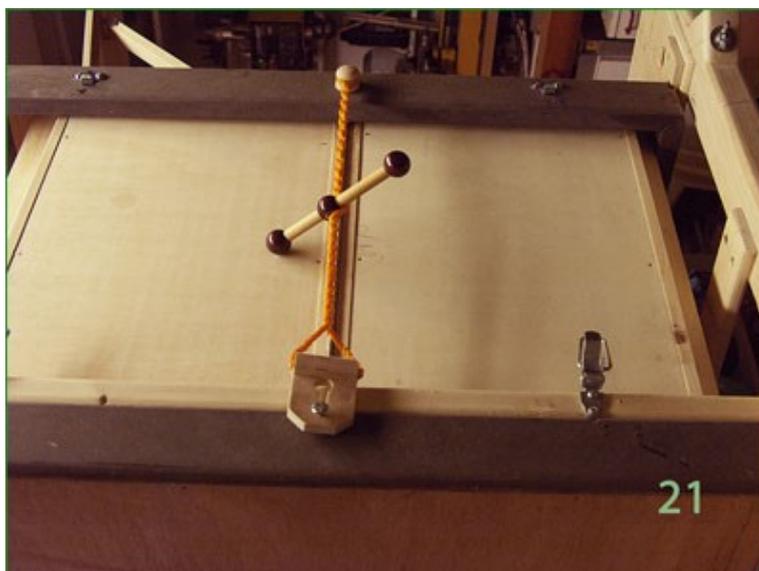
I used piano hinges for the collapsible body.



The front panel includes two superimposed doors opening upward. See pictures 10 + 12



The front and rear panels are maintained against the body of the box by tension cords; foam sealing strips allow for light-tightness. See picture 21.



In the upper part of the body there is a window with an orange Amberlith® filter and a UV filter between two glass plates. A red Rubylith® filter would probably be more appropriate.

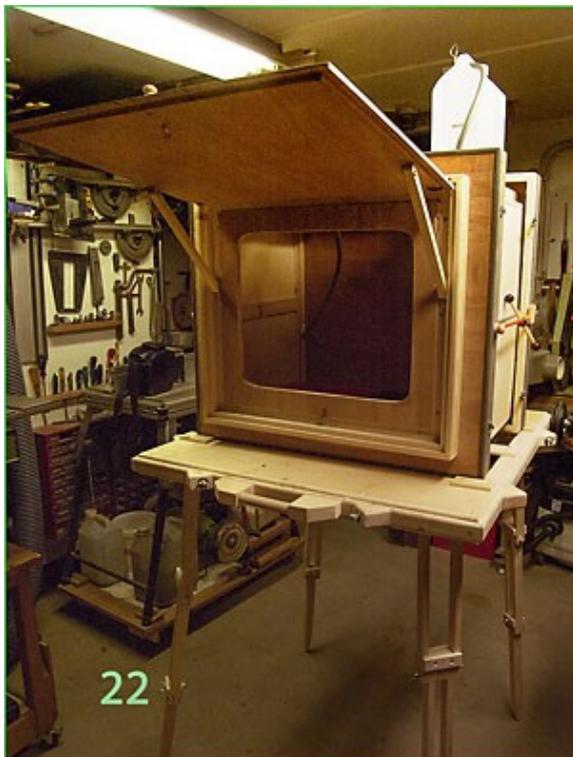
See picture 43.



Underneath the window is a sliding panel allowing to modulate the amount of light in the box. See picture 11.



When there is not enough light outside to use the window, a battery-powered fluorescent tube, provided with the same filters, can be used instead. See picture 50.



The outside door can be lifted and maintained open with two supports.

See picture 22

A light-tight black cloth is fixed on it with Velcro strips.



The bottom hem of the cloth has a weighing wire in it, allowing the cloth to hang nicely down. See picture 48.



The second door gives access to an opening large enough to pass my shoulders. It is equipped with a sleeve made from yellow opaque fabric, fixed with Velcro strips on one side and provided with a rubber band on the other.

The inside of the box is painted yellow (this color gives the best reflection of light which also remains the least actinic for the collodion). See picture 54.

The outside is painted black and the panels are covered with dark brown vinyl. See picture 41.



The body of the box, when folded, fits between the front and rear panel, so forming a rather shallow box which is maintained closed by four suitcase clasps. (See picture 43, previous page, at the top).

On top of the box are placed two containers, one for the developer and the other for the rinse water. The bottoms of these containers have flexible pipes fixed by means of a two components pasta. These pipes hang into the box and are equipped with special clamps to clench them. See picture 37.

In the bottom of the box, there are two openings which can take the containers with the silver nitrate and the fixer; these are made from Corian®. The silver nitrate container is provided with a lid. The sides of these containers have hollows allowing to grasp and remove them from the bottom of the box. There is also a removable paper roll in the box. (See picture 54, above) .

2. THE TABLE

Pictures 38 and 39:

The top of the table must be large enough to receive, besides the box, a working tablet for cleaning the plates and pouring the collodion.

This table has a hollow frame which receives the box.

Under the table are four folding legs, similar to those found on old tripods. Those legs fit nicely within the frame of the table; they have safety pins to prevent the segments to collapse.

In the back, there is a Corian® working tablet with two vices to hold various sizes of plates (from 4x4 cm to 15x15 cm) during the cleaning.



Picture 53:

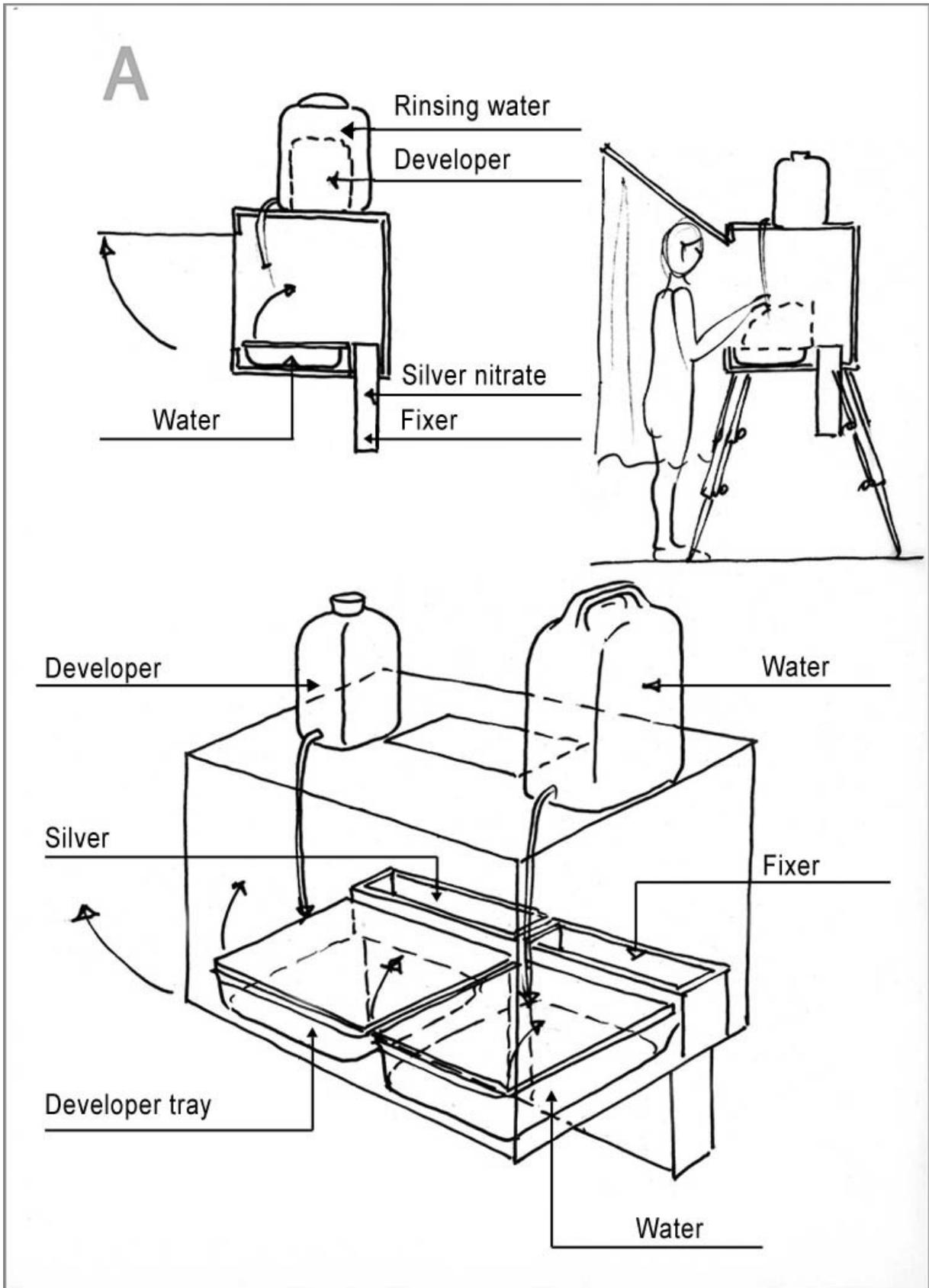
At the bottom of the table/darkbox set, there are two wheels for the transportation of the whole. The box and the table are kept together by bungee cords.

The whole forms a cart which allows to move it.

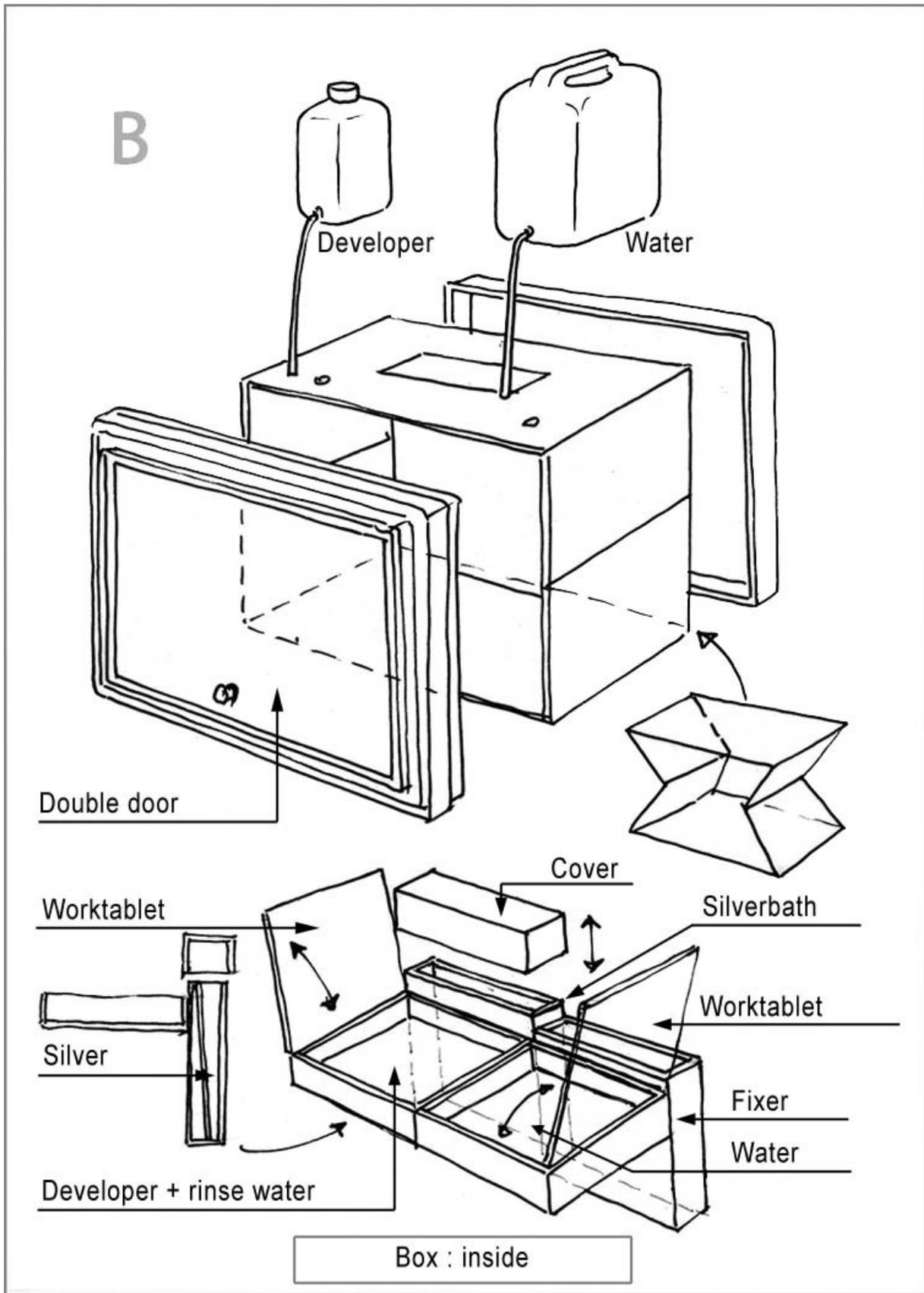


APPENDIXES

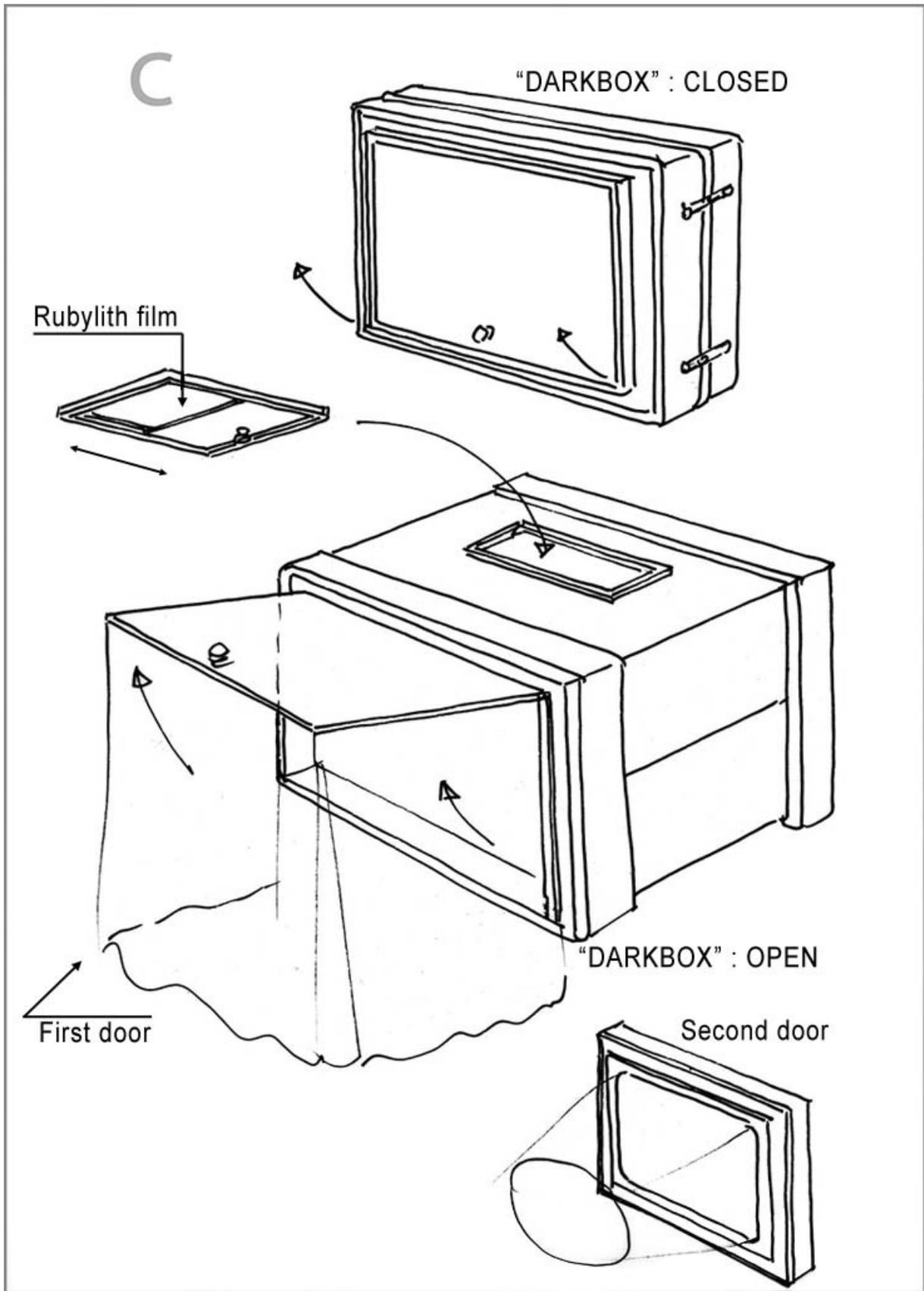
Appendix A



Appendix B



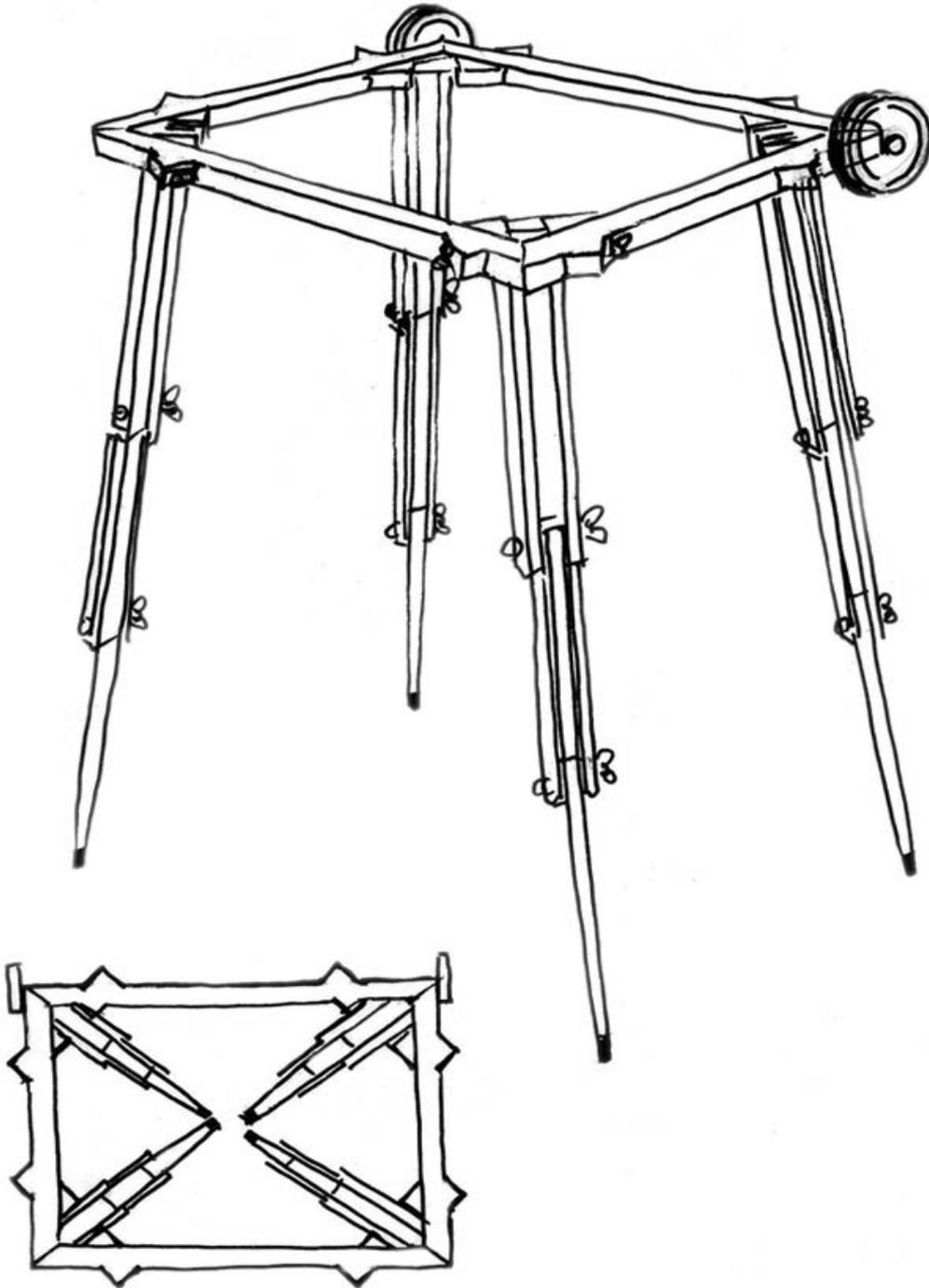
Appendix C



Appendix D

D

DARKBOX TABLE & CARRIAGE



Appendix E



We would like to thank René Smets, who kindly accepted to have his original texts and pictures edited, translated and distributed by Picto Benelux, an informal group open to everybody in the Benelux countries having an active interest in photographic processes developed from the very beginning of Photography. The aim is to revisit them, while respecting anyone's creative approach.

<http://www.picto.info/>

Contact: Jacques Kevers - jacques@kevers.org