

# HAND-HELD STEREO DISSOLVING VIEWS

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Peter Hubert Desvignes caught my attention because in February 1860 he took out a UK patent that described 28 different designs for zoetropes. Titled *Improvements in Apparatuses for Exhibiting Photographic, Stereoscopic, and other Pictures, Models, Figures and Designs*, his patent is very well embedded in the literature<sup>1-4</sup> (Hopwood, 1899; Liesegang/Hecht, 1926/1986; Gosser, 1977; Pesenti Campagnoni, 1995 and elsewhere), but apart from this patent his optical work is completely unknown.

So I wanted to know where he obtained the optical knowledge and experience that led him to write an unparalleled compendium of zoetrope designs at a very early date. To reinforce my curiosity, Desvignes lived on the other side of the London Borough of Lewisham from me, and I thought that, for once, I would take up a local project.

It turns out, unexpectedly, that Peter Hubert Desvignes (1804-1883) is a very interesting character. I still do not know where, or why, he gained his optical knowledge. He studied at the Royal Academy under William Atkinson, entered the competition to design a new building for the Houses of Parliament in 1835 but did not win, and took on a commission to oversee the complete refurbishment of the Liechtenstein Palace in Vienna in the new Rococo Revival style, which consumed his energies for a decade from about 1837.

When not engaged in architectural pursuits Desvignes was a noted painter whose portraits of animals were engraved by Charles Hunt and published by G.H. Moore. He was also a part of the team of painters working on panoramas for H.H. Scott and J.R. Smith that were exhibited in London and Manchester. So work on the Desvignes project continues, but I have found nothing so far about his involvement with the zoetrope or optical devices. Then I found a second United Kingdom patent, this one from December 1863, No. 3089, entitled *Apparatus for Exhibiting Dissolving Views*.

The patent is for a hand-held device similar in many ways to stereo viewers from Oliver Wendell Holmes, Sir David Brewster and their many imitators and adapters, but it has a particular distinction: the Desvignes viewer held stereo pairs that dissolve when light illuminates them at first from the front and next from behind. Some members may recall that this was the principle used commonly in the 18th century by travelling showmen in peep boxes and later on a large theatrical scale by Daguerre in his Diorama. Desvignes took this principle and reduced it to a lightweight, portable apparatus to be held in the hand in front of the eyes, with light admitted to the front or the rear of the stereo view by

moving a lever controlling flaps in the device. This patent from Desvignes is recorded only in Hermann Hecht's *Pre-Cinema History* (No. 231E, p. 141), where the abridgement is quoted with a text that poorly describes the patent.

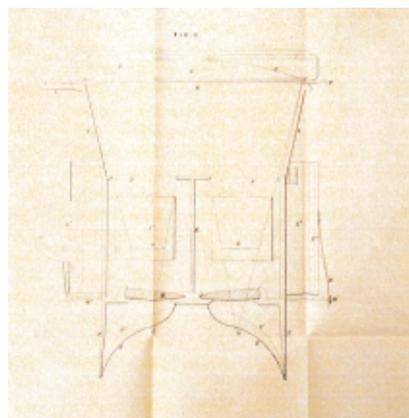
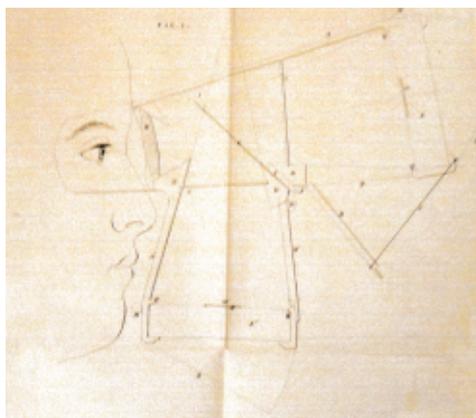
The Desvignes viewer was quite flexible, able to use translucent drawings, magic lantern transparencies, or other visual materials. The images were held in a magazine and were moved through the device after viewing. The machine was also quite refined, with adjustments that could contend with very heavy framed images by using an auxiliary pulley system ("so that the hand need not be inconveniently extended") to move them through the machine, while smaller transparencies were changed by a simple spring. The precise positioning of the two light-admitting flaps, for front light and rear light, could also be adjusted by means of a mill-headed friction pulley.

While the entire machine could be placed on a stand and approached by its individual viewer, Desvignes provided for 'protruberances' on the case of the device so it could be held in the hand. This was clearly his preferred method of using it so that it could point towards the best light for both front and rear illuminations. Desvignes also described the possibility of shuttling the light from front to back as fast movements which today might be declared by some commentators to be two-frame animations, i.e. moving pictures.

When this patent was issued in 1863, stereoscopy was at or near its peak of popularity, and Desvignes was clearly ready to participate in the trend with this invention. He would quite probably have built and used a model himself on the way to patenting the device, but no evidence has yet come to light of any commercial or public manufacture of the machine. Perhaps constructing one as illustrated here would be a good project for an MLS member with skilled hands.

## REFERENCES

1. Henry V. Hopwood, *Living Pictures*, The Optician & Photographic Trades Review, London, 1899, pp. 21-23
2. Franz Paul Liesegang, *Dates and Sources: A contribution to the art of projection and cinematography*, translated and edited by Hermann Hecht, The Magic Lantern Society, 1986, pp. 27-28
3. H. Mark Gosser, *Selected Attempts at Stereoscopic Moving Pictures and Their Relationship to the Development of Motion Picture Technology, 1852-1903*, Arno Press, New York, 1977, pp. 98-99
4. Donata Presenti Campagnoni, *Verso il cinema. Macchine, spettacoli e mirabili visioni*, UTET Università, Italy, 1995, pp. 178-79
5. Hermann Hecht, *Pre-cinema History: Encyclopaedia and annotated bibliography of the moving image before 1896*, edited by Ann Hecht, Bowker Saur, in association with BFI, London, 1993, p. 141



1. (left) Figure 1 of Desvignes' patent is a vertical section showing how he miniaturised the dissolving apparatus, with panels B and B1 admitting light to either the front or back of a transparency, seen through a translucent scrim at G

2. (right) Figure 2 of the patent, a plan of the interior with its top removed, with the translucent scrim at G, G1