GERMAN TOY MAGIC LANTERNS – PROJECTING PHENAKISTOSCOPES PART 3 – JEAN SCHOENNER, NÜRNBERG

PARI 3 – JEAN SCHOENNER, NURNBER

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THE DEMENŸ PATENT CINEMATOGRAPH

It is little known that Jean Schoenner made a projecting phenakistoscope using a German patent of Georges Demenÿ. The German patent is D.R.P. no. 71339 and dates from 20 November 1892. After an obviously unsuccessful challenge by Ottomar Anschütz the patent was finally issued on 27 October 1893.¹ The patent is for 'Bilderträger und Beleuchtungsvorrichtung für Schnellseher'(Fig. 44).² Schoenner made two variants of this cinematograph.



In variant 1 the magic lantern consists of a square body and a lens stand of Russian iron on a wooden base (Fig. 45). The mechanism for securing and rotating the picture discs can be fixed in front of the condenser. Fig. 46 shows the arrangement for projecting discs with



two windows that rotates in the opposite direction to the picture disc in front. The metal shutter also has two small 'catchers' in the centre. The catchers move the pinion, which has twenty-four teeth (one for each picture) and is made of very stiff cardboard. The frequency is about ten pictures per complete rotation of the wheel (Fig. 51). The opposite side of the long metal mechanism has a window for







the picture (Fig. 52). Unfortunately the clamp to fix the picture disc in the centre is missing.

The disc mechanism can be substituted by a separate metal guide frame for normal long glass slides or slides with wooden frames (Fig. 53). The picture discs have a diameter of 15.6 cm with twenty-four sequential images



vertical images. For operating discs with horizontal images the mechanism has to be turned 90 degrees, into a horizontal position (Fig. 47). The lens stand can be moved or removed from the base to give



more space for changing the picture discs or to turn the mechanism into the position required (Fig. 48). The burner is very robust with a cylindrical wick, like a hose, and a fixed holder for the mirror (Fig. 49).

The mechanism has a wheel with a handle to rotate the disc via a belt drive (Fig. 50). There is a circular metal shutter with ^{48.} with twenty-four sequential images around the perimeter. The images are chromolithographs instead of the real photographs used in the original phonoscope by Demenÿ,

















although the number of images is the same. Five discs have survived. The first one is probably a self-portrait of Georges Demenÿ speaking (vertical design, Fig. 54). The second disc shows a young man talking (Fig. 55) - a typical example of Demenÿ's experiments to analyse lip reading by deaf and dumb people (a work in association with Prof. H. Marichelle de l'Institution nationale des sourds-muets). The other discs show a dancing clown (Fig. 56), a boy washing himself (Fig. 57) and a walking horse (horizontal design, Fig. 58).

I am aware of only one other example of this variant of the projection phenakistoscope. It was sold at Christie's on 25 November 1999 (auction no. 8590, lot 167).

In variant 2, the body of the lantern is the same as in variant 1. Fig. 59 shows the two positions of the movement mechanism for projecting vertical or horizontal picture sequences. The first obvious difference compared to variant 1 is the addition of a polished metal rest or post to support the mechanism when horizontal picture discs are projected.

However, the main difference lies in the construction of the movement device for the picture discs. The large pinion, loose and

> made of cardboard in variant 1, is now fixed onto the mechanism and made of Russian iron. The separate parts of the mechanism are shown in Fig. 60. It works using a rack and two pinions with the pinions set at 90

degrees to each other. The shutter has only one wing and one catcher to move the pinion. A flexible metal strip (like a blade spring) is used to stop the movement after each picture (Fig. 61). The metal plate (bottom right in Fig. 60) has a double function: as a connecting piece between the lantern body and the mechanism (Fig. 62) and, when the mechanism is removed, as a guide frame for long glass slides or slides with wooden frames.

These are obviously all improvements on variant 1. Therefore I think it

reasonable to assume that variant 2 followed variant 1. There is also an improvement in the discs. These have a casing of thin cardboard with openings for the images, a metal ring around the outside and also a metal ring in the centre. These changes make the discs stronger and stabilise their rotation. The contrast in the projected images is also better than in variant 1. The picture disc is fixed in the centre by a bayonet joint (Fig. 63).





62.



58



The designs of the known discs are the same as in variant 1. Disc no. 6 (missing in the set with variant 1) shows two men fencing (Fig. 64).

The example of variant 2 shown here is from a private collection. A second example is in the collection of the Museo Nazionale del Cinema di Torino (Turin, Italy).

CINEMATOGRAPH NO. 500 C



A few years after the Demenÿ patent cinematograph Jean Schoenner made another projecting phenakistoscope magic lantern. A catalogue



dating from 1905 shows this cinematograph in an improved variant with a lens that can be focused by rack and pinion (Fig. 65).

In my opinion the variant shown in Fig. 66 can be dated before 1905 because it does not yet have the focusing improvement. The discs with the sequential images can be changed by turning the lens stand (fixed onto the wooden base by a screw on one corner) to the side. To achieve that a small rail at the top of the lens stand





has to be unlocked from the body of the lantern by turning it 90 degrees and a metal tongue lifted from a small nail on the wooden base.

If we look at the mechanism for producing the intermittent movement with the discs we can recognise that it is the same as the one used by Ernst Plank on his Kinematador/Cinematograph³ (Fig. 67). The detail of the mechanism at the back is shown in Fig. 68.



In the 1905 catalogue are various magic lanterns similar to those of Ernst Plank (Climax, square-shaped lantern like the lantern of the Kinematador, Gloria, Standard), which leads to the conclusion that Jean Schoenner and Ernst Plank had a close partnership in the manufacturing and marketing of magic lanterns at that time.

		State Dia	No. 941/1-12		
	Kinem	atograj	ohen-Sche	ibenbild	ler
Vorhand	en sind im Ganzen folger Bei Nachbestellu	nde 12 verschied ngen ist daher s	ene Scheiben, wovon stets die betreffende N	bereits 6 dem Ap lo, des Sujets anz	parate beigegeben sind. ugeben.
No. 941/1 /2 /3 /4	Schmetterlingsfang Sommer-Schaukel Knabe und Podel Winterbelustigung	No. 941/5 /6 /7 /8	Der Jongleur In der Tanzstunde In der Badeanstalt Im Zirkus	No. 941,0 /10 /11 /12	Fleissige Kanalarbeiter Ringspiel Springende Knaben Mädchen mit Springseil.

The picture discs available are listed in the Schoenner catalogue from 1905 (Fig. 69). Twelve designs are listed in total and a set of six discs was included with each cinematograph 500 C. Each disc shows twelve chromolithographed sequential images on very thin celluloid. They are numbered and signed 'J.S.' and have a diameter of 14.5 cm. Four from the set of six are shown in Figs 70–73.



This concludes my short series about projecting phenakistoscopes, but I hope to find more examples of these fascinating and special inventions from the world of the German toy magic lantern.

NOTES

- Martin Loiperdinger, Film und Schokolade KINtop Schriften 4, Stroemfeld Verlag, 1999 (ISBN 3-87877-764-7). The D.R.P. was generally valid for a period of fifteen years at that time.
- 2. www.depatisnet.de
- 3. See Part 2 of this series, The Magic Lantern, no. 12, p. 7, Fig. 27.