

'FEUX PYRIQUES' ('CHINESE FIREWORKS')

Part 2 – Other 'Artificial Fireworks'

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Following my acquisition of the hidden optical cabinet described in Part 1 (TML 29), I have done some research in books, catalogues and private collections. I have discovered other toy theatres with light effects, for adult – and also children's – entertainment (e.g. Fig. 1).

In his autobiography, the German poet Heinrich Seidel (1842-1906) gave a clear description of the working of such optical toy theatres: "In a black box there is a drum provided with a winding wheel, placed on top of a perpendicular stick and illuminated inside by a candle. As a result of the rising hot draught, the drum begins to revolve. Over this drum, various other cylinders can be placed, e.g. a coloured striped



1. Example of optical toy theatre with striped cylinder

one. Then, cardboard plates, into which different images have been cut, have to be placed at the open side in front of the box: a bouquet of flowers, a temple, vases, etc. When the coloured striped drum begins to turn behind these pictures, all the cut out parts in the scenes twinkle and glitter in constantly changing colours. One can also replace the picture plates by a frame of oiled white paper and cover the drum with a sheet of black paper containing cut out images of all sorts of witches. They are projected now as white shadows on the little waxed screen."

In a pictorial catalogue of 1803 by Georg Hieronimus Bestelmeier, a German toy merchant from Nürnberg, several theatres are shown with similar pictures, presented as 'Chinesische Feuerwerke' ('Chinese Fireworks'). Among these, one is of an optical box in which scenes could be watched through a magnifying lens. Also the *Oekonomische Encyclopädie* ('Economic Encyclopaedia') of 1833 by J.G. Krünitz (1728-96) mentions 'die Chinesischen Feuerwerke' ('these Chinese Fireworks') together with 'das Schattenspiel' ('the shadow plays'), 'die Phantasmagorie' ('the phantasmagoria') and other optical toys which were produced by means of a mirror or magnifying glasses.

In 1890 Dembour et Gangel (Metz, France) published a series of perforated coloured engravings called *Feux Pyriques et Diamanteaux* ('Fireworks and Diamonds'). These showed a variety of favourite subjects, such as: 'Le Chateau d'Eau' ('The Fountain'), 'La Lune et les Etoiles' ('The Moon and Stars'), 'Le Soleil' ('The Sun'), 'La Sphère' ('The Sphere'), etc. An example is shown in Fig. 2.

At the turn of the century another toy theatre appeared in France. It was mainly intended as a shadow theatre but could also be used as a 'Feux Pyriques'. Instead of a wheel or a drum it utilised a coloured paper curtain, composed of different monochrome paper sheets, mounted together. Oblique black and coloured stripes are positioned over the entire length. The curtain can be rolled up and down between the picture and a light source. The coloured prints depict large crowded scenes, such as 'Une Fête Villageoise' ('A Country Fair'), 'Bataille de Confetti Place de l'Opéra' ('Confetti Battle in Front of the Opera House') or more



2. 'La figure du damné' (figure of the damned) by Dembour et Gangel (Cinémathèque française)



3. 'Bataille de Confetti, La Place de l'Opéra' outside the Palais Garnier (or Opéra Garnier)

fairly-like tableaux such as 'Les Fontaines Lumineuses' ('The Luminous Fontains') and 'La Loie Fuller' ('Loïe Fuller – The Serpentine Dance), etc. (Figs 3, 4 and 5). The movement of the soft monochrome tints of the rolling curtain works very well in contrast to the heavy coloured pictures. A little carillon provides the musical accompaniment. Some of the prints are signed 'Ludovic' and in the box it says: "M.-D., Editeur – Novateur des Ombres Chinoises avec Musique" ('M.-D., Publisher – Creator of Chinese Shadows with Music'). This musical theatre was mass produced and even today you can still find some examples in auction sales and antiquarian toy shops.

Chinese lanterns with optical effects are also mentioned in other sources (e.g. *Science and Civilisation in China*, ed. Joseph Needham, Cambridge University Press,



4. 'Loie Fuller' – The Serpentine Dance in a lion cage



5. A circus act

1954 onwards). Writing in 1900 Tun Li-Chen said: "Pacing-horse lamps are wheels cut out of paper, so that when they are blown by [the warm air rising from] a candle [fastened below the wheel], the carts and horses [painted on it] move and run round and round without stopping. When the candle goes out the whole thing stops. Besides this lamp, there are others of such things as carts, sheep, lions and embroidered balls [made so that they remain lighted from within even when rolled over and over on the ground]."

There are also copper balls with cut-out figures, which are permanently illuminated from within (Fig. 6). When they are rolled over the ground they throw all kinds of patterns on the wall.



6. The illuminated copper balls

Similar effects could be obtained with the magic lantern, projecting chromatropes and images of springs and fountains in action, expanding these effects for a wider audience.

Hobbyists and enthusiasts of optical pleasures made similar theatres as pastimes during the long winter evenings. In the early part of the 20th century, a booklet entitled *Blinkfeuer* ('Flashing Light') by A. Claus, appeared in the pocket edition of a book for young people: *Spiel und Arbeit* ('Play and Work'), edited by Otto Robert (Verlag Otto Maier, Ravensburg, Germany) (Fig. 7). Claus explained how to make such an optical theatre, illustrated it with many drawings and even added a blueprint for its construction.

But, nowhere have I ever seen a 'Feux Pyriques' in any way similar in size, beauty and 'grandeur' to those two big cases which were hidden in a castle for about 200 years.



7. Blinkfeuer and the pocket edition of the book it appeared in, Spiel und Arbeit

At the MLS Summer Meeting in July 2019 (see TML 20), after this article was written, Stephen Herbert discussed a Dutch 'Feux Pyriques' cabinet that he had purchased for a friend in an American auction in 2001. This was smaller than Herman Bollaert's (illuminated by just two candles) and subsequently sold at Christies but Stephen made replicas of some of the views and the interior revolving wheel design, while his friend Ivan Rose reproduced the cabinet. These, and some original perforated views, featured in a film Stephen showed at the meeting. The possible link to the development of the chromatrope was discussed there. Stephen also recalled Werner Nekes showing him the perforated views from a similar device but Werner had no cabinet. Stephen's talk and film can be viewed via 'past events' on the MLS website. – Ed