

'THE WORLD MAGIC LANTERN'

Lester Smith

The child's magic lantern shown in these adverts is fairly well known – most collectors will have something similar – but the description given for it reaches new heights of hyperbole: 'The World Magic Lantern is an entirely new shape and of the same principle as the magnificent invention of the powerful reflector for locomotive headlights, throwing strong rays of light ahead on the track. The whole power and diffused rays of light are combined, concentrated and focussed in our cone-shaped reflector in such a way as to immensely intensify the brilliant light and transfer every ray to the main reflector [probably condenser]. Thus a light as strong and piercing as a Lime Light or Electric Arc is produced. Our improved Magic Lantern will form clear, distinct, life-like pictures on a radius of 3 feet.'

The '3 feet' may be significant. Various periodicals at the time carried adverts for such a lantern. On 24 November 1883 *The Queen* showed it on offer from D.J. Foot & Son for 10s 6d (the Mad Hatter price of 10/6 – or 52.5p in today's money) (Fig. 1). A year later, *The Illustrated Sporting and Dramatic News* of 24 November 1884 advertised it from J.F. Foot & Son for 5s 6d (27.5p) (Fig. 2). *The Graphic* of 13 December 1884 gave the same price but now from J.G. Foot & Sons (Fig. 3). At least all three Foots give the same address.

But could the lantern live up to its description? A few years later *The Scientific American* published an article in two parts – on 26 March and 18 June 1887 – entitled 'The Scientific Use of the Toy Magic Lantern'. This described experiments owners could carry out – our readers might like to try them too (at your own risk). Here are six:

• Microscopic projection (Fig. 4)

• The effect of cohesion (Fig. 5) – put a small amount of petroleum jelly between two glass plates, hold them tightly together with an elastic band then put in the lantern. Separate the plates slowly with the point of a knife inserted between the upper corners of the plates. As they separate, fern-like growths appear on the screen.

• The radiometer (Fig. 6) – place a radiometer between the lantern and the objective lens. The heat from the lamp causes the black and white vanes of the radiometer to revolve.

• The opeidoscope (Fig. 7) – stretch and fix a piece of rubber over the end of a short tube. Stick a tiny piece of mirror to the centre of the rubber. Put a card with a small hole in the lantern so that a pencil of light can be aimed at the mirror. As you speak or sing into the open end of the tube, intricate figures form on the wall or screen.

• Projecting the spectrum (Fig. 8)

• The luminous fountain (Fig. 9) – this can be messy!

The three-page article includes another twenty-one scientific demonstrations and concludes by saying 'no attempt has been made to treat the subject exhaustively but merely to suggest that a considerable amount of experimentation may be achieved with this cheap lantern and easily made accessories.'

The lantern used and illustrated is most likely one of the larger models in the range of toy lanterns available – but what a present of infinite possibilities for any child!



1. 1883 advert in *The Queen*

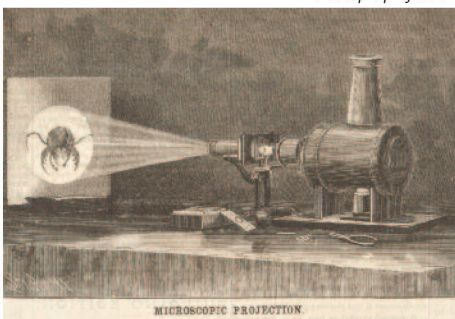


3. 1884 advert in *The Graphic*



2. 1884 advert in *The Illustrated Sporting and Dramatic News*

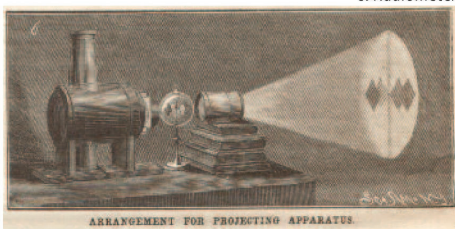
4. Microscopic projection



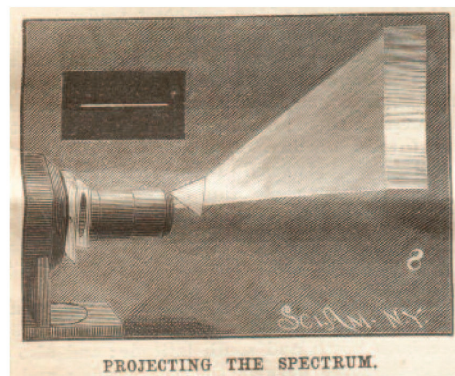
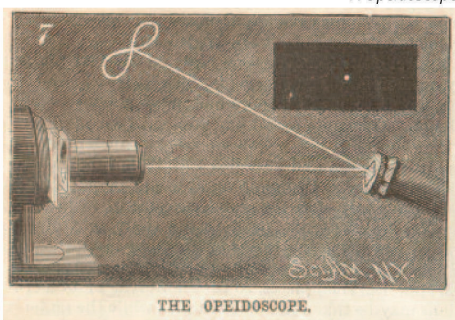
5. Effect of cohesion



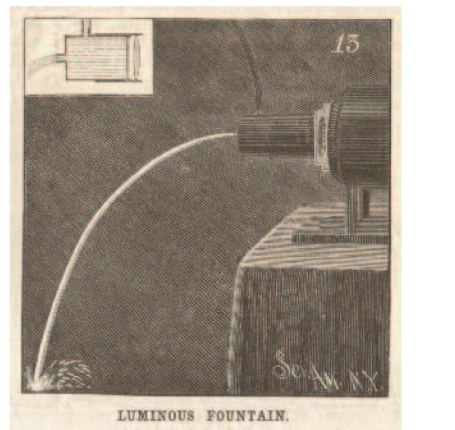
6. Radiometer



7. Opeidoscope



8. Projecting the spectrum



9. The luminous fountain