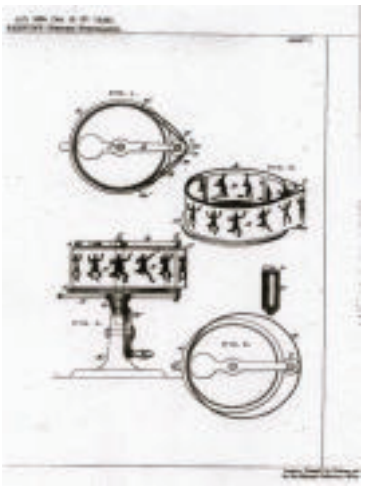
THE VIVISCOPE

Bill Barnes

With the advent of the Cinematograph in 1895 appeared the last in line of the old zoetrope type of moving picture device using drawings of a complete phase of movement on a single strip of paper. This was the Viviscope, an ingenious and attractive device, simple to operate and inexpensive to acquire. Its belated appearance came too late for this type of toy to enjoy any lasting success and it was soon superseded by more efficient and sophisticated alternatives such as the Kinora in multiple forms which used the life-like pictures of the Cinematograph.

1. Front and back pages of Koopman's pamphlet (Helmut Wälde Collection)

2. UK patent drawing (Helmut Wälde Collection) – identical to US patent drawing as reproduced in Herbert, Donisthorpe



The Viviscope was the brainchild of a Mr William C. Farnham of Arlington in Remmington County, Vermont, USA. It was patented by him on 16 October 1895, US patent no. 547-725[1] and produced in America by E.R. Koopman, 50 Union Square, New York (see Fig.1) who claimed to be the sole manufacturer.[2] A supplier in the UK was a Mr G. Fowler of 70 Great Saffron Hill, London.[3] An announcement in the *Optical Magic Lantern Journal* for February 1897 claimed it was "being sold in large numbers".[4] If this is to be believed, why has it become one of the rarest of all pre-cinema toys of this type?

3. The Will Day Viviscope (Cinémathèque, Paris)

Unlike the zoetrope type of moving picture device, its images were presented in a unique and unusual manner in that the drawings were on a continuous paper band or loop placed on the exterior of a revolving drum. This was activated by a handle while a mechanism pushed forward a single image, one at a time, which filled the space in a tin proscenium arch, as in a cinema. When the handle is cranked, one picture is replaced by another, and so on, with a brief pause at each appearance of a new image, thus producing the effect of a figure in motion when the handle is turned continuously (Fig.2).[5] Nothing is known at present about its inventor William Farnham but his champion Elias Bernard Koopman (1860–1929) is well known to film history being one of the four co-founders of the American Mutoscope and Biograph Co. The three others were Dickson, Casler and Marvin.[6]

4. Viviscope in a private collection

At the present time there are no known examples of the Viviscope exactly as it appears in surviving contemporary illustrations. On close examination it appears they were of rather cheap construction of perhaps compressed tin in the manner of such toys of this period. This seems to be confirmed by the relatively low price they were offered to the general public. In the USA a machine complete with a series of six bands sold for $1.25 – additional bands could be purchased for 25 cents for six.[7] In the UK, its price was 6s 6d.[8]

There are only three Viviscopes known at present, none of which are very satisfactory examples as they are not only incomplete but also unlike the familiar appearance in contemporary illustrations. The Will Day Viviscope in the Cinémathèque française, Paris (Fig.3) is not only lacking its proscenium arch but appears to have had some kind of interference to its drum base. The example in the Toy Museum, Gozo, Malta, has also lost its proscenium arch.[9] An example in a private collection appears to be a prototype demonstration model or a later replica (Fig.4). I have not been able to inspect any of these personally but from close examination of photographs, I feel sceptical about the private collection example which appears more in the manner of a scientific instrument than the tin toy described by Koopman.

Despite the extreme scarceness of the Viviscope itself, the paper bands have survived in quantity and excellent condition, together with an original cardboard box in which they were presented, although this is somewhat distressed (Fig.5). From these surviving bands it has been possible to compile a complete list of the three series that were issued – A, B and C – each containing six different bands. These are as follows.

Series A:	Series B:	Series C:
1. Rabbit drawn from a hat*	1. Ballet dancers*	1. Cyclist
2. Watermelon eater	2. Juggler, barrel and balls	2. Fist fighter+
3. Blindman's buff	3. Hoopla!	3. Contortionist
4. Cat with two kittens	4. Ball-balancing elephant*	4. Monkey on jumping dog
5. A top-hat dance	5. Horsewoman	5. Wrestlers
6. A couple's embrace	6. Mr Big and Mr Small*	6. Magicians

Note: the titles are the author's. Bands marked * are in the Wälde Collection, marked + in the Will Day Collection and all others are in the Barnes Archive. Nos 5 and 6 of Series C have been determined from information in the four-page promotional pamphlet for the Viviscope. Each original Viviscope band bears its own series letter and number. (See two examples in Fig.6.)

5. Original cardboard box for a series of six bands (Barnes Archive)

6. Original Viviscope bands, from Series A. Each band is 11½ inches in circumference and 2¼ inches high (Barnes Archive)

The author is grateful for the co-operation of Helmut Wälde, Stephen Herbert and Lester Smith in the preparation of this article and thankful to Laurent Mannoni of the Cinémathèque française, Paris, for having catalogued the Will Day Collection.

NOTES AND REFERENCES

1. Stephen Herbert, *Industry, Liberty, and a Vision: Wordsworth Donisthorpe*'s *Kinesigraph*, The Projection Box, Hastings, 2017 (for the US patent drawing), p.156 and Wälde Collection for a copy of the UK patent
2. Promotional pamphlet, 4pp, in Wälde Collection
3. Herbert, *Donisthorpe*, p.156
4. *Optical Magic Lantern Journal*, February 1897 (my thanks to Stephen Herbert for this reference)
5. See US patent drawing, Herbert, *Donisthorpe*, p.156
6. Paul Spehr, *The Man Who Made Movies: W.K.L.Dickson*, John Libbey, 2008, p.403
7. Promotional pamphlet, 4pp, in Wälde Collection
8. *Optical Magic Lantern Journal*, February 1897, quoted in Herbert, *Donisthorpe*, p.156
9. My thanks to Peter Jewell of the Bill Douglas Cinema Museum for reporting the existence of the Gozo-Malta Viviscope

These two contemporary works (supplied by Helmut Wälde) also mention the Viviscope:

- *The Scientific American*, 20 June 1896, p.395
- *Das Buch der Experimende*, from Schweiger/Lerchanfeld. A Hartleben's Verlag, Leipzig, 1900

MLS member David Burder has recreated a viviscope that you can view on YouTube: https://www.youtube.com/watch?v=vCLyPMSrdko

MY FIRST SLIDE

Aileen Butler

I grew up with a family magic lantern which had been passed down from my grandfather. My first slides had been either his or picked up by my father after World War II. A favourite slide was the blacksmith beating the anvil (to the 'da, da, dadada, da' accompaniment of the Volga Boat Song). Another slide showed boys blowing a boat to and fro across a tub of water.

Favourite story sets were *John Gilpin's Ride, the Jackdaw of Rheims, Tiger and the Tub*, and – a late addition in the 1950s – Disney's *Three Little Pigs*. There were also favourite children's slides of incredible deep sea fish and early flying machines. My birthday parties as a child always won over others as we finished with a magic lantern show!

MORE IMAGES FROM THE SPRING MEETING (see page 15)

Jones the Mason *(above)* and The Irish Ghost *(rt)*

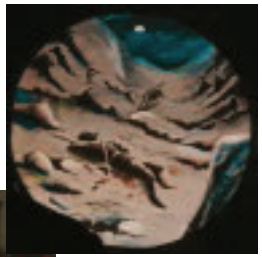
Heart of Oak

The fugitive slave dreaming

Fire! Fire!

Mervyn and Martin setting up the phanta-smagoria den

Monique Wezenberg, John Townsend and Annet Duller



St Bernard rescue (above), Hocus – or Pocus (above rt), Martin Gilbert and Cindy Sughrue (from the Dickens Museum, see p.9) (rt)

Videos of most presentations are available via the Members' Area of the MLS website (www.magiclantern.org.uk/events/meetings-search.php)