

# THE OPTIC WONDER

Mike Smith

IN AN ARTICLE IN THIS JOURNAL which appeared in 1992 (Vol. 6 No. 3), I described a find which I had recently come upon, *The Atmospheric Optic Marvel*. This little optical toy consisted of a small drum, with a tube through which air was blown to rotate a platform giving optical illusions from small shapes placed on top. In the article I referred to Henry Hopwood's book *Living Pictures* of 1899, which mentions a similar device called *The Optic Wonder*, in which 'a piece of wire bent to the outline of one side of a vase or the like symmetrical figure was made to revolve rapidly round its vertical axis and thereby gave the impression of a complete vessel'.<sup>1</sup>

Seventeen years further on, I have finally located not only an Optic Wonder, but also a steam-driven version of the same toy.

The first item is the Optic Wonder or Creator of Form. This toy was

produced by The London Stereoscopic & Photographic Company in the late 1860s, and was made to demonstrate the principle of 'persistence of vision'. Its component parts are packaged in three small boxes, contained inside a fourth box designed to hold everything together (Fig. 1). The example found is in stunning original condition and complete in every respect.

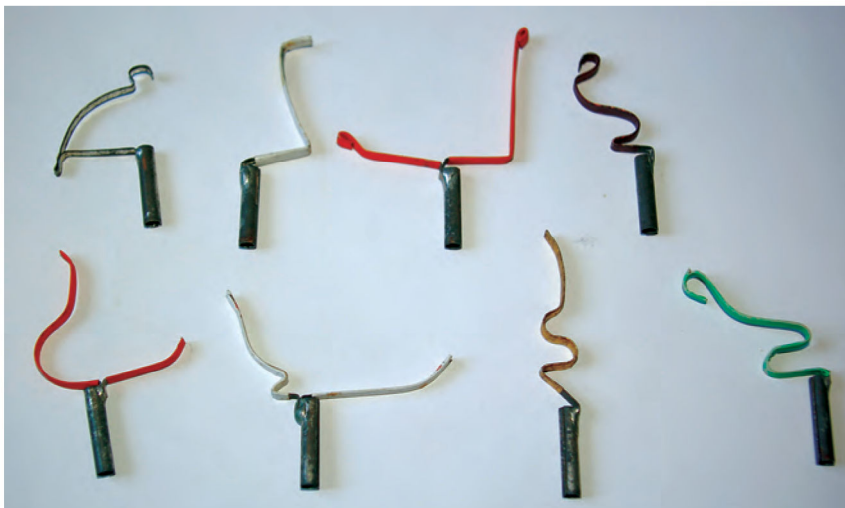
The first box (Fig. 2) contains the hand-operated instrument – a simple gear mechanism driven by a small handle which spins a vertical axle onto which the 'metallic subjects' (bent and painted pieces of tin; Fig. 3) are push-fitted. When the subjects revolve, they appear to take on the form of solid objects, in sometimes surprising ways. This box contains six such subjects together with the original instruction leaflet (Fig. 4).



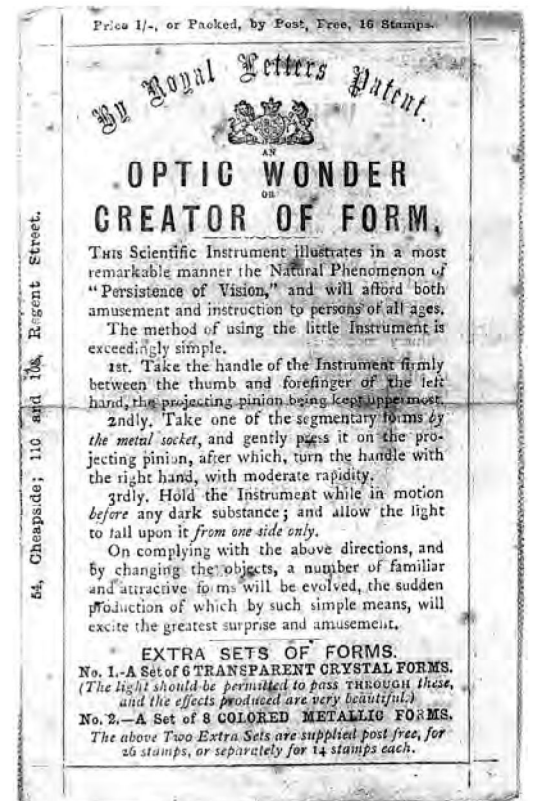
1. The boxes of the Optic Wonder – the three smaller boxes fit inside the larger one



2. The Optic Wonder mechanism packed with its tin 'subjects' and instruction leaflet



3. Set of eight tin 'subjects' supplied with the Optic Wonder.



4. Instruction leaflet for the Optic Wonder

## NOTES

1. Henry Hopwood, *Living Pictures: their history, photo-reproduction and practical working* (London: Optician and Photographic Trades Review, 1899), 4, cited in Mike Smith, 'The Atmospheric Optic Marvel,' *NMLJ* Vol. 6 No. 3 (January 1992), 14–15..



The second box (Fig. 5) contains an extra set of eight further metallic subjects, and the third box (Fig. 6) has a set of six 'crystal objects', remarkable delicately shaped rods of glass (Fig. 7) that give beautiful effects of three-dimensional transparent objects like wine glasses and similar vessels.



5. Extra set of eight tin 'subjects' for the Optic Wonder

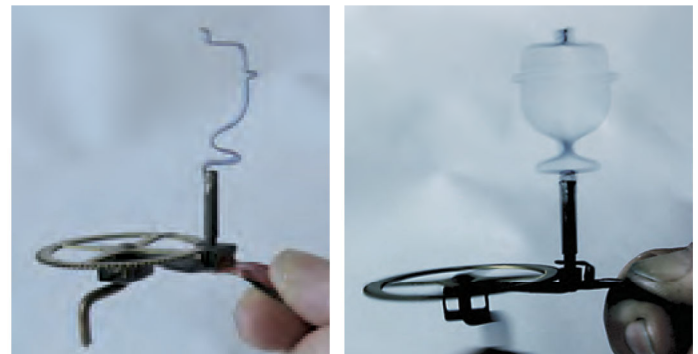


7. Set of six 'crystal objects' – it is not clear whether the metal portion of the third object is original or a later repair

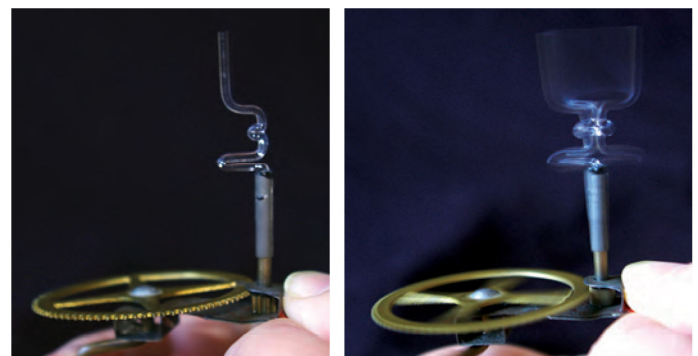
Apart from the reference in Hopwood, the Optic Wonder is also mentioned in an 1868 article by William B. Carpenter, mentioned in Hermann Hecht's *Pre-cinema history*, and Hecht speculates that the effect of producing an illusion of a solid body by spinning a shaped rod may have been 'contrived' by one John Gorham.<sup>2</sup>



6. Original packaging of the set of six 'crystal objects'



8. Optic Wonder mechanism with 'subject' mounted and in use



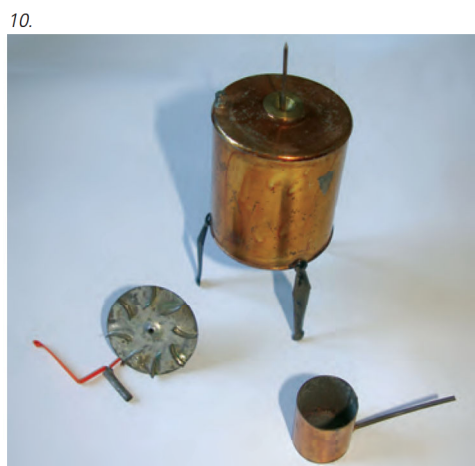
9. Optic Wonder with 'crystal object' mounted and in use

The second find is The Steam Optic Wonder. This is a steam-powered version of the same effect, produced by the same company, again in the late 1860s. It comprises (Figs. 10–11) a small soldered copper water boiler, a rotary platform that sits on top of the boiler, a pan to hold oil or spirits, and eight 'metallic subjects' formed from painted pieces of tin.

When water in the boiler is heated by burning oil or spirits in the pan underneath, steam is forced through a small hole on the top of the boiler to drive vanes on the underside of the platform, thus making the platform revolve in the same manner as the Atmospheric Optic Marvel in my original article. The tin or glass 'subjects' can then

be placed on top of the rotary platform to create three-dimensional effects in the same way as the manually operated Optic Wonder.

This toy is also in wonderful original condition in its original box (Fig. 12). The instruction leaflet and selection of 'metallic subjects' are missing, although the metallic subjects are interchangeable with those supplied with the Optic Wonder. I have not seen this toy before and I can find no references to it in any publications.



10. Components of the Steam Optic Wonder: from left to right, a 'metallic subject', the rotary platform, the copper water boiler and the pan to hold oil or spirits



11. Steam Optic Wonder assembled ready for use



12. Original box containing the Steam Optic Wonder

10. Components of the Steam Optic Wonder: from left to right, a 'metallic subject', the rotary platform, the copper water boiler and the pan to hold oil or spirits  
11. Steam Optic Wonder assembled ready for use  
12. Original box containing the Steam Optic Wonder

**MIKE SMITH** is Honorary Secretary and Treasurer of the Magic Lantern Society, and for many years has been a collector of optical wonders of all kinds.  
Photos by Richard Crangle.

2. William B. Carpenter, 'On the Zoetrope and its antecedents', in *The student and intellectual observer of science, literature and art* (London: 1868, 2 vols), cited in Hermann Hecht, *Pre-cinema history: an*

*encyclopaedia and annotated bibliography of the moving image before 1896* (London: Bowker Saur, 1993), item 248B. See also Hecht item 225A for the reference to Gorham.