THE TERPUOSCOPE LANTERN

"Wrench" Lanterns, Cinematographs, etc., ESTABLISHED 1816 TRADE MARK LONDON MADE. are all stamped with this Trade Mark, etc.

Russian Iron Optical Lanterns.

No. 19A. Russian Iron Optical Lantern, with Rolling Curtain Effect. Fig. 32. The "Terpuoscope."

Body. Made of Russian iron. All the openings being wired. The two side doors are panelled and fitted with brass eye-pieces and blue glasses. There is a hinged door at the back, provided with brass catch. The body is fitted with an upper shelf, provided with grooves to take the illuminant. The space below is divided into compartments for taking the oil-can and funnel, as well as a Russian iron slide box.

Stage and Front Tubes. Made of brass. The front plate is divided from the back plate by four brass columns; this plate is threaded to take the front tubes, and is fitted with a spring plate. There are two pairs of long brass guides attached to the back plate, one pair carries the lantern slide, and when in position it is held by two springs, fixed within the grooves. A brass curtain, fitted with a double rack, works up and down in the second pair of guides. This curtain is actuated by two large brass tooth wheels, and worked together, from either side, with a detachable handle. The ordinary size slide is placed within the grooves under the front tubes, and is racked up into position, when it is caught by the two springs mentioned above, which properly centre it. The front tubes are made of brass. The sliding tube is fitted with cast-brass flange, having the same pitch of thread as No. 3, page xiv.

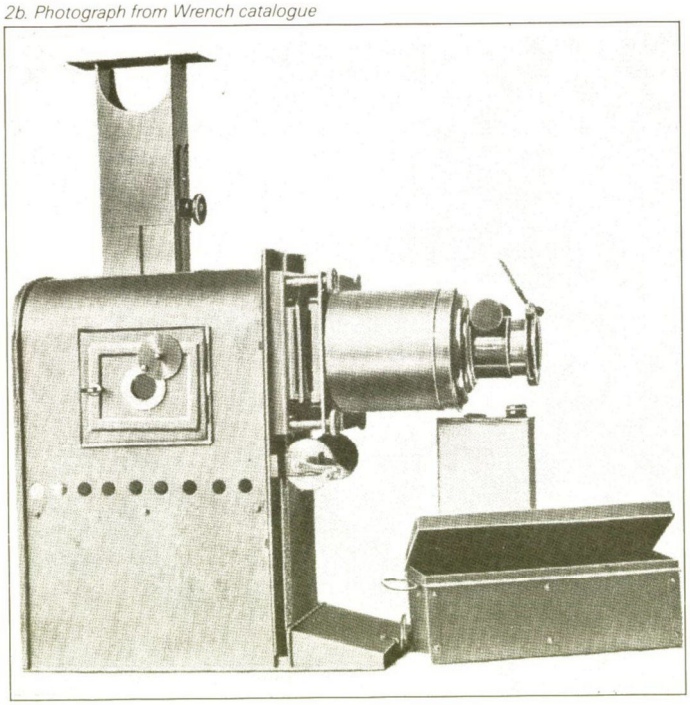
Condenser. No. 3 "Wrench" Double Convex and Meniscus, see pages 70 and 71.

Case. Made of Russian iron, wired throughout and fitted with substantial leather handle, and brass catch to the door.

Specification.	No. 19A Lantern. Fig. 32. With No. 2 Objective. Pages 72 and 73. Order No.	Price each £ s. d.	With No. 4 Objective. Pages 72 and 73. Order No.	Price each £ s. d.
Lantern Body, Condenser and Case, as above (5½ in. centre)	0206	7 2 6	0209	7 10 0
Lantern Body, Condenser and Case, with 1A Tray and 4A Cowl, pps. 118 and 119	0207	7 8 9	0210	7 16 3
Lantern Body, Condenser and Case, with Stocks-Wrench Lamp, pps. 82 and 83	0208	8 2 6	0211	8 10 0

2a. Extract from Wrench catalogue

2b. Photograph from Wrench catalogue



We illustrate this lantern from the Mike Smith collection (1), together with the corresponding description of it from the *Wrench Catalogue* (2). For an extra £2.00 on the prices quoted a version of the lantern was available with a polished mahogany body – instead of the Russian Iron one illustrated.

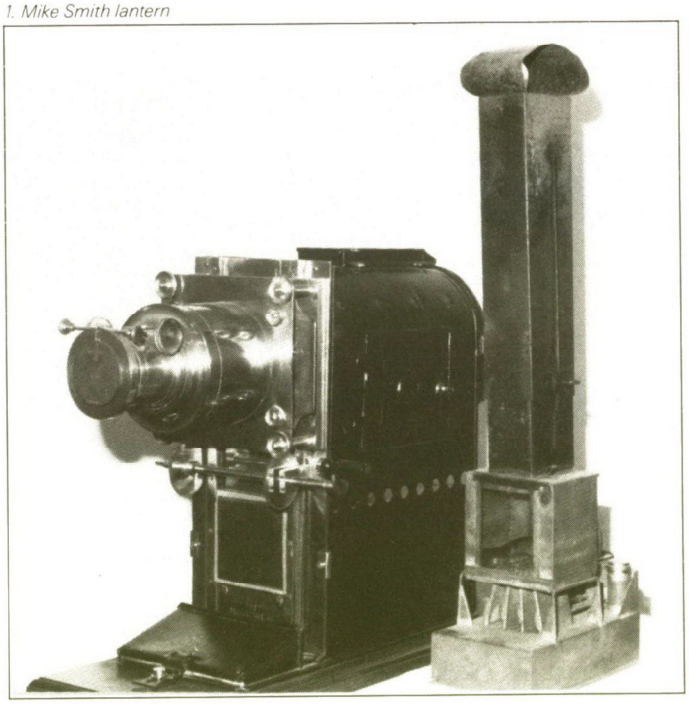
The lantern was the invention of Alfred Wrench whose Provisional Specification of it was deposited at the Patent Office on 14th August 1889 (3). The lantern was given a brief review in the *Optical Magic Lantern Journal* of 15th November 1889 – which illustrated the mahogany-bodied version as shown (4). The Complete Specification was deposited on 30th November 1889 (being given final acceptance on 4th January 1890). We illustrate a part of the drawing which accompanied that patent (5) but omit the (?intentionally) almost unintelligible text, reproducing instead the following description from a catalogue contemporary with the introduction of the lantern. (The patent still being described as 'applied for', implying a date before January 1890). This gives a very clear account of the working of the lantern from an operator's and a spectator's point of view:

Before the Entertainment commences, a Photographic Slide (3¼ x 3¼) is placed in the grooves, under the front tubes, and is worked up into its place by the rack and pinion adjustment, where it is caught by springs and properly centred ready for exhibition.

To commence the Entertainment, the curtain is racked down, which has the appearance on the screen of rolling up a black curtain and revealing the first picture or slide of the lecture.

While this is being exhibited another photograph is placed in the grooves under the front tubes, and when the change of slide is desired, the rackwork curtain is racked up again, taking with it the second picture (having the appearance on the screen of the black

1. Mike Smith lantern



New Pattern
Russian Iron Lanterns,

With Automatic Registering Slide Carrier, and Rolling Curtain Effect combined,

Worked by Rack and Pinion Adjustment.

"THE TERPUOSCOPE"

(REGISTERED).

(Patent applied for. No. 12,860.)

PRICE £6 15 0.

curtain rolling down over the first picture), which exactly takes the place of the first, and is in position for exhibiting, the curtain is again racked down (ie. the black curtain rolled up on the screen) when the second picture is seen in the same way as the first. This can be continued all through the lecture.

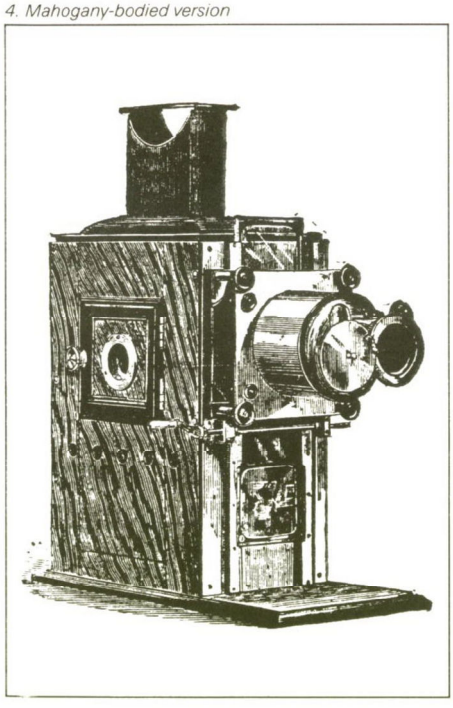
Should it be wished during the lecture to introduce a Mechanical Slide or any slide, mounted in a frame, the working of it is as follows: After the last Photograph has been exhibited, before the mounted slide is required, instead of inserting another Photographic Slide in the grooves, a dummy slide, made of brass with a blank space in the centre (which is sent with each Lantern), is put in and racked up, which takes the place of the last photograph exhibited, while the curtain is up (ie. down on the screen) the mounted slide is then placed in the ordinary stage of the Lantern, and the curtain is racked down again (ie. up on the screen) when the mounted slide will come into view.

Then, if another Photographic slide is required, it is placed in the grooves in the way before mentioned, and racked up into position, taking the place of the dummy slide, and the mounted slide is withdrawn from the stage while the curtain is up (ie.down on the screen).

Mounted slides can also be exhibited one after another with the curtain effect, in the same way as the Photographic Slides. Should the exhibitor at any time wish to dispense with the Rolling Curtain, the slides can be exhibited in the ordinary stage of the Lantern in the same manner as in other single Lanterns.

The great advantage of the Rolling Curtain Effect is that between each slide, the screen having been made black for a few seconds by the Curtain rolling down, the eyes are relieved from the great glare, and each picture all through the entertainment comes as fresh and bright and with equal effect to the eyes of the spectators, as the first slide exhibited.

4. Mahogany-bodied version



ESTABLISHED 1816 TRADE MARK. LONDON MADE

Wrench trademark

N° 12,860 A.D. 1889

Date of Application, 14th Aug., 1889
Complete Specification Left, 30th Nov., 1889—Accepted, 4th Jan., 1890

PROVISIONAL SPECIFICATION.

Improvements in or Applicable to Optical or Magic Lanterns.

I, ALFRED WRENCH, of 50, Grays Inn Road, in the county of London, Manufacturing Optician, do hereby declare the nature of this invention to be as follows :—

This invention relates to improvements in or applicable to optical or magic-lanterns, whereby both mounted and unmounted slides can be more conveniently and easily exhibited than hitherto, the unmounted slides being automatically registered ; by these improvements also a curtain or screen is operated between the exhibition of the slides as hereinafter more particularly described.

In carrying out my invention I form the lantern with two compartments in the stage or receptacle for the slides. One of these compartments is adapted for the reception of mounted slides, and the other compartment is provided with guides in which works a carrier operated by a rack and pinion or other arrangement, and adapted to receive and exhibit unmounted slides, and to register such slides automatically. The guides are furnished with spring lugs which yield to the upward pressure of the slide and immediately it has passed them they spring outwards and hold the slide in position for being exhibited.

The said carrier also actuates a screen or shutter in such a manner as to produce the effect of a curtain falling after the exhibition of one slide, and rising to exhibit to view a new picture.

In a modification of my invention I employ a shifting stage operated by a rack and pinion or other arrangement whereby mounted slides and mechanical slides can be exhibited and registered automatically in the same way as unmounted slides and which shifting stage also actuates a screen or shutter to produce the curtain effect hereinbefore mentioned.

Dated the 14th day of August 1889.

G. F. REDFERN & Co.,
4, South Street, Finsbury, London, Agents for the Applicant.

3. Text of the provisional specification

5. Drawings from the final specification