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To our Readers.

As announced in the October number it is our intention to publish the Journal during the summer months, and numerous letters are to hand viewing this as a step in the right direction. By the time this number is issued the lantern season will be practically over, and readers will be settling down to a little leisure; judging from correspondence in our possession, some of them have met with unique experiences which we should like recorded for the benefit of the profession at large. We therefore invite our readers to utilize their leisure moments and send along anything of special note, difficulties or otherwise. We also want our readers to make the Journal known among those who use the Lantern—their name is legion—and for this purpose, we will willingly supply specimen copies to all who apply.
During the summer months we purpose making experiments and tests of matters relating to lantern accessories, dets, Electric Aris, Guages, Regulators, Saturators, etc., and Enlarging Negatives and Prints, from which we hope to give useful results.

The following, among others, have promised to contribute articles:
- Theodore Brown, "The Inventor's Note Book."
- J. 1. Lear Caton, "Slides required for up-to-date services."
- J. Page Croft, "Specialization."
- J. W. Knowles, "Manufacture of Oxygen."
- M. Marx, "Lanternist vs. Lecturer."
- W. T. Owen, F.R.G.S., "Touring for Lantern Slides."
- S. E. Short, "Polytechnic Tours, Lectures."
- H. H. Ward, "Hints for Workers."
- E. H. Wilkie, "Reminiscences."
- J. W. Garbutt, "Experiences."

In addition to the above, other friends have promised articles of a useful nature.

One word, in conclusion: We do not carry on the Journal for philanthropic but for business purposes, and depend on advertisers for support. Advertisers, being men of business, naturally want to know what results they get for their outlay, and if readers when corresponding with firms would mention the source, they would be rendering a service to the proprietors of the Journal and advertisers.

**Mere Mention.**

**Nottingham Industrial Exhibition, 1903.**

It has been decided to hold an exhibition of local and international industries at Nottingham, to open the latter part of May, and a strong and representative Committee is being formed. The working and the direction of this exhibition is in the hands of Mr. Charles Imre Kiralfy and Mr. Albert E. Kiralfy. The exhibition palaces are Oriental in character. The site selected borders the River Trent, and is close to the County and Town Cricket and Football Clubs' grounds (enclosures visited on "event" days by over 30,000 people). Attractions and entertainments form important items in the scheme. Arrangements already made include a water chute, a fairy river, a Canadian maze, an old London street of Tudor times, and an even later novelty, an American toboggan. Lanternist Cinematographs Exhibition. Generally the exhibition will be brilliantly illuminated, additional effects being obtained by displays of coloured lights, several thousands in number. Music will also play its part. An exhibition band under a well known and competent director is being engaged, and arrangements are in progress with the leading military bands. The grounds are in the hands of a landscape gardener; avenues of miniature shady trees—such as the tourist discovers at the out-of-door cafes on the continent—are to be a feature. There are to be specialities in the way of popular refreshment departments. Transport facilities are excellent. The Midland, Great Northern, Great Central, and London and North Western Railways have stations close at hand, and there is a tramway service up to the entrance gates. Nottingham has a population of over 250,000, and within the district there are upwards of 2,000,000 inhabitants; further, the city is a setting-out point to the extensive holiday grounds, "The Dukeries," and Sherwood Forest. Special arrangements are in progress to allow the visitors readily to make "the grand tour." The chief offices of the exhibition are at Nottingham, and in London at 19, Buckingham Street, Strand, W.C.

**The National Electrical and General Trades Exhibition** opened at Bingley Hall, Birmingham, on March 30th, under the management of Mr. Geo. Stanley, and includes among the exhibits in group 4—Photography, A Section, Landscape; B, Moving Objects; C, Indoor Figure subjects; lantern slides and photographs are hung round the corridors. The Bioscope, with all the latest films is one of the principal attractions.

"How Crystals are made" was the title of a lecture by Professor H. Crompton, at the Royal Victoria Hall, on Tuesday, March 3rd. He illustrated his lecture by a number of experiments, most of which were very successful. Many of these experiments were performed in front of the oxy-hydrogen lantern, by which means the whole of the audience were able to note every point with great facility. A few specimens of large crystals were first exhibited in order to show their regular forms. The productions of crystals by the cooling of hot liquids by evaporation of solids, by precipitation from solution on the addition of a solid, and by other methods, was then dealt with.

**Sheffield Photographic Society.** — The monthly meeting of this society was held on Tuesday evening, March 3rd, at the Builders' Exchange, Charles Street, Dr. H. G. Paterson, president, in the chair. The prize slides in the
AND PHOTOGRAPHIC ENLARGER.

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lantern slide competition, organised by "Photography," were exhibited, additional interest attaching to such exhibition, owing to Mr. T. G. Hibbert, the treasurer of the Society, and Mr. H. B. Bentley, of the University College, Sheffield, being amongst the successful competitors. Mr. John Allen, of London, a visitor to the meeting, exhibited a number of natural colour slides made by him by the "Sanger Shepherd" process. These slides consisting of Swiss views and flower studies, were highly appreciated.

**Prismatic Methodist Chapel, Chapel End, Walthamstow.**—A most interesting and instructive lecture was given on Tuesday evening, March 3rd, entitled, "A Trip to Canada," by Mr. F. Davidson, illustrated with 75 photographic views by the optical lantern, including the Atlantic voyage, Canadian life, and Niagara Falls. The lecturer, who has spent some years in the Dominion, ably described the winter outdoor sports in Canada. The tour was 12,000 miles in 100 minutes.

**Cambridge Y.M.C.A.**—On Tuesday evening, March 3rd, Dr. Bansall lectured to the members of the Y.M.C.A Camera Club on the subject of "A Glimpse of Norfolk."

**Sir. Robert Ball.**—On Tuesday, March 3rd, gave the first of a series of popular science lectures at the Theatre Royal, Grantham, selecting as his subject, "The Earth's Beginning." His lucid and interesting remarks were, of course, illustrated by slides.

**Lantern Lecture on "Clapham" at St. Anne's Hall.**—Mr. Cecil T. Davies (librarian of the Wandsworth Public Library), lectured at St. Anne's Hall, Clapham, on "The History of Clapham," on Thursday, March 5th. Illustrated as the lecture was with some capital pictures, shown by means of the oxy-hydrogen light, it could not fail to be otherwise than attractive in every way; and the quaint reminiscences of the 14th, 15th and 16th centuries thrown on the screen were much appreciated by those assembled, the lecturer maintaining that the present robes of our aldermen and councillors were a survival or replica of the gowns worn by the ordinary citizen in the periods named. The watch-box and the watchman, and other curiosities of the past decades, were also most ably explained by the lecturer; following which the "history of Clapham" proved most entertaining and instructive; the views of Clapham Common in its original and unadorned beauty as nature left it, being much prettier than as it now appears in its cattle-pen style of beauty.

**Mr. G. W. Tillett.**—On Thursday evening, March 5th, delivered a lecture, illustrated with limelight views, in the Wesleyan School-room, Tonning Street, Lowestoft, on "Glimpses of Life on the Prairie and the Veldt, and beneath the Aurora and the Southern Cross."

**The Rev. Rowland Young** delivered a lecture in the Congregational Schoolroom, High Street, Gorleston, on Wednesday, March 6th, the subject being, "Temple Gate to the Emerald Isle." The lecture was illustrated by over 60 views, kindly lent by the Mission to Deep Sea Fishermen, Mr. Young gave a very interesting account of his visit to the beautiful scenes of Ireland, and interspersed his lecture with many amusing anecdotes of the Irish people.

**Walsall Trinity Wesley Guild.**—On Monday evening, March 9th, an interesting lecture was given by Mr. W. T. Comer, Hon. Secretary of the Walsall Photographic Society, entitled, "Scene, Song, and Story." The lecturer showed a number of fine pictures of the Midlands and Welsh Coast by means of his bi-unial lantern, keeping the audience highly amused the while with numerous stories concerning the various places exhibited. At the close a series of fine effects were shown by Mr. Comer.

**Mr. Alfred Watkins** gave one of his delightful lantern lectures on Tuesday evening, March 10th, in St. Peter's Church House, Hereford, entitled "Picturesque Herefordshire," and which was rendered exceedingly interesting and instructive by archaeological and other knowledge of the places portrayed. The pictures were numerous and realistic, and elicited frequent applause.

**Underground Dwellings.**—Mr. David Macritchie, F.S.A., Scot., gave an interesting lecture, with numerous lantern illustrations, to the Gaelic Society of Inverness, on March 12th. His subject was "Underground Dwellings in the British Isles." The lecturer described the primitive underground structures in the British Isles, which he said had clearly been human habitations, as the objects found in them indicated. From the small dimensions of the structures, and the traditions still surrounding them, the lecturer deduced that there had existed a small race of earth-dwellers or mound-dwellers, possibly contemporaneous for a time with the Celts. He pointed out that the huge mound of Tomnahurich
Lecture on Ecclesiastical Antiquities.—Mr. Francis Joseph Bigger, M.R.I.A., gave a most interesting lecture in Kilbroney School-house, Rostrevor, on Friday, March 13th, entitled, "The Church of Ireland, Celtic, Norman, and Reformation, as evidenced by her churches, and and ecclesiastical remains." Mr. Bigger illustrated his discourse by a magnificent series of lime-light views which included photographs ranging from the bee-hive cells in the Skellig rocks, County Kerry, to St. Fin Barre's Cathedral, Cork, and some of the latest-built churches in Belfast, notably St. Peter's; thus covering almost the whole history of the Church of Ireland.

The Ruins of Rome were beautifully illustrated in a lantern lecture delivered at the Music Saloon, Wakefield, on Monday, March 16th, by the Rev. Chas. Hargrove, M.A., of Leeds, whose historical sketch of the rise and fall of Rome, the magnificence and glory of her architecture, and the pathos of her ruins in later times proved an intellectual treat; the clearly defined lantern slides enhanced the value of the lecture from an informative point of view. The fascinating story of the Vestal virgins, their temple, and convent proved acceptable.

The Rev. H. H. Ashley Nash, Organising Secretary of the Jews' Society, gave a lecture on Monday, March 16th, in the Court House, Soham, on "The Ghetto of London," being an account of life in the Jewish quarter of London, with a description of the parochial missions of the society in Whitechapel and Spitalfields. The lecture, which was most interesting and instructive, was enhanced by lime-light illustrations.

Friends' Institute, Birmingham.—Prominent among the numerous social agencies at work in connection with the Friends' Hall and Institute, Moseley Road, is the series of lantern lectures given on Monday nights throughout the winter months. Monday, March 16th, saw the last of the season, when over 1,500 people attended. Mr. Joseph Locke, general secretary of the Institute, presided, and the programme included limelight views of "Snap-shots of places and faces at home and abroad," given with humour by Mr. Arnold E. Butler.

Lights and Shadows of Workhouse Life.—On Tuesday, March 17th, in the Cassland Road Schoolroom, Hampstead, Mr. W. Fenton-Jones (member of the Hackney Board of Guardians) gave a lantern lecture on the above subject, and described the Hackney Infirmary, its officers, the patients, etc.; the Hackney Workhouse, and the work of a Guardian, together with the daily life and treatment of the various classes of inmates, the Cottage Homes at Sidney Road, where the children are carefully looked after by foster mothers, and sent to the Board School for their education. The work at the Brentwood Schools was also fully detailed, and a very interesting account was given of the technical, physical, and scholastic education of the children, and how they are trained for the future.

Leith Amateur Photographic Association Annual Slide Exhibition was held in the Assembly Rooms on Tuesday night, March 19th, when, as usual, there was a large attendance. The hon. president, Mr. R. Hunter, presided, and fulfilled the duties of raconteur in his own inimitable style.

The following members contributed slides:—Mr. John Amos, six slides, views of Crail and St. Andrews; Mr. Melville, eight, chiefly landscape scenes. Mr. A. Crichton, nine, among them being a number of interesting local places. Mr. W. Combe, a varied collection of local and general views. Included in the former was a building in Mill Lane erected by the late Mr. Gladstone's father, and another in Quality Street, which is said to have been the scene of a banquet given to Charles II. after being crowned in Edinburgh in 1650. Mr. W. M. Dalziel, eight slides, chiefly views of river scenery. One picture showed the preparations for a floral service in North Leith Parish Church. Mr. D. Scott, seven, mostly views of bridges and rivers. Mr. A. Dodds, ten slides of places in the Trossachs, etc., made famous by Sir Walter Scott in his "Lady of the Lake." Mr. Guthrie, twelve views, studies of sea and sky. Mr. Concha, six views, chiefly of Melrose landscape. Mr. Gilroy, five slides of general interest, among them being "A street scene in Italy." Mr. R. C. Ewart, thirteen slides of landscape and seascape views. Miss Aitken, half-a-dozen pictures of flower studies. Mr. J. Crichton, ten of local interest, including Mr. Theodore Napier, a Links cricket Match, Newhaven fish-wives, and views of processions. Mr. D. S. Officer, eight, mostly river scenes, with one or two animal studies. Mr. T. Wilson, president, a dozen slides of the local Coronation fete events, winter scenes, and water studies. Mr. W. Duncan, secretary, twelve slides, those of local interest being seven views of the fire at
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Messrs. Park, Dobson & Co.'s woodyard and mill, and two or three of Volunteer camp life. Mr. George Paterson, seven slides of river and landscape views. Mr. H. Hawson, eight of general interest. Mr. W. Carruthers, nine slides of interesting scenery in and around St. Andrews. Mr. James Gibson, ten slides of seascapes and meadow scenery. Mr. J. Hayes, twelve of scenes on the Fidhorn. Mr. M. Campbell, nine slides of general views, one giving the new North British Hotel, Edinburgh. Mr. W. Seath, five slides of places in and near West Linton. Mr. D. Sutherland, nine sea and river views. Mr. Oliver, twelve, including some German views.

Mr. Will Crooks, M.P., we are given to understand, largely used the lantern during his campaign at Woolwich, illustrating "Scenes from London Life," and having crowded audiences at every hall visited.

Reading Sunday School Union.—In connection with the above Union, and through the kindness of the friends, during the last four months there has been held in the Lecture Hall at Church Street, every Sunday evening at six o'clock, a lantern service. Messrs. A Herbert and Co. supplied the lantern, etc., at all the meetings, and the thanks of all concerned are due to them for the excellent way in which they carried out these duties. It is hoped that this work may be continued another year, but the cost is considerable, and it is doubtful whether the funds of the Union will permit, but it would be a pity for such an excellent work to be dropped on this account. The cost incidental to a similar series of lectures that have been held during this winter would be about £20.

Eastman Kodak Company of New Jersey.
A dividend of 1½ per cent. (being at the rate of 6 per cent. per annum) on the outstanding preferred stock and a dividend of 2½ per cent. (being at the rate of 10 per cent. per annum) on the outstanding common stock have been declared payable on April 1st.

Prizes, &c. offered.—In our November issue we asked for articles on "How to deliver a successful lantern lecture," offering prizes of £1 1s. and 10/6 for the two best. Several correspondents wrote saying that they were so busy, and asking for the matter to stand over till a "slack time" came and they would be able to spare time to write. The opportunity is now. Will intending competitors send this month? so that we may adjudicate and publish in either the May or June issue. It is hardly fair to the two gentlemen who have written articles, and we offer this as our apology for delay.

****

The Capacities of Modern Organic Developers.

By Dr. Jon. Gaedicke.

The race between the various organic developers at present on the market has occupied photographic circles considerably of late. Every new developer which appears claims to be the best and finds worshippers who confirm this. Under these circumstances it is necessary to calmly sift these various claims in order to find their level. Taking this as a basis I have examined the most important developers carefully, giving them an impartial and practical trial. The conclusion come to was that with every one of them good results can be obtained, so that it resolves itself finally into the question—which of these developers is the most advantageous to use.

Looking at photographic work, it is necessary to consider those developers as the most complete which will reproduce the exact proportion of density due to the exposures to light. Of course this effect and application of the developer expects a harmonious negative plate which will allow the exposures to light to be developed in the manner stated, and which cannot be said of all plates. Many photographic plates on the market, especially those working hard, render with strong exposures to light comparatively dark—and weak exposures to light, comparatively thin negatives, whereas others which are highly sensitive give flat negatives, and slow ones will give a similar effect even with great exposures to light.

I took for my experiments a photographic plate of a well known make, of medium sensitiveness, which had been in stock for some time. This plate still worked really a little harder than was necessary when exposed in the camera, but it was necessary for my practical purposes, and I found that the gradation worked sufficiently harmoniously to enable the comparison of the various developers. All the comparative experiments with the developers I worked were done on plates of one emulsion; the amount of light used in all cases was the same, viz.:—120 M.S.K. Development was made until a weak precipitate was formed, which was the sign for breaking off—otherwise the delicate tones would have been fogged.
The object tested was a Scale Sensitometer of 1-16 Pelure Paper. The composition of the developers was taken as described by the individual manufacturers who are therefore responsible for the correctness of the formulae. In cases where the manufacturers' instructions varied, the medium value, or the instructions for normal exposure, were chosen, as the quantity of light of 120 M.S.K. was found to be a normal standard in previous experiments. To each developer there was added for every 10 parts of developer one drop Bromide Solution (1:10), then the ready developing solutions (which only require dilution with water) were used:—

1. Rodinal diluted with water in the proportion 1:30.
2. Edinol diluted with water in the proportion 1:20.

The composition of the developers was as follows:—100 parts of water being used:

<table>
<thead>
<tr>
<th>Developer</th>
<th>Sulphite of Soda</th>
<th>Developer Potash</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Adurol</td>
<td>11</td>
<td>1/2</td>
</tr>
<tr>
<td>5. Amidol</td>
<td>5</td>
<td>1/2</td>
</tr>
<tr>
<td>6. Ortol</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>7. Glycin</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>8. Metol</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>9. Hydroquinone</td>
<td>5</td>
<td>1/2</td>
</tr>
<tr>
<td>10. Pyrocatechin</td>
<td>2</td>
<td>1/2</td>
</tr>
</tbody>
</table>

The temperature of the whole of the experiments was at 18°C. Observations were made:—the time in which the image appeared, duration of development, the last readable figure on the Sensitometer image, and the density according to general estimate—and the results were as follows:—

<table>
<thead>
<tr>
<th>Developer</th>
<th>Image appears in sec</th>
<th>Duration of Development in min</th>
<th>Last readable figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rodinal</td>
<td>25</td>
<td>3</td>
<td>13 Normal</td>
</tr>
<tr>
<td>Edinol</td>
<td>22</td>
<td>3</td>
<td>13 Normal, very clear</td>
</tr>
<tr>
<td>Pinakol</td>
<td>15</td>
<td>2</td>
<td>13 Normal</td>
</tr>
<tr>
<td>Adurol</td>
<td>20</td>
<td>3</td>
<td>13 Strong</td>
</tr>
<tr>
<td>Amidol</td>
<td>13</td>
<td>2</td>
<td>13-14 Rather strong</td>
</tr>
<tr>
<td>Ortol</td>
<td>21</td>
<td>2</td>
<td>13 Somewhat less strong</td>
</tr>
<tr>
<td>Glycin</td>
<td>37</td>
<td>4</td>
<td>13 Very strong, very clear</td>
</tr>
<tr>
<td>Metol</td>
<td>5</td>
<td>1</td>
<td>13 Normal</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>80</td>
<td>5</td>
<td>13-14 Strong</td>
</tr>
<tr>
<td>Pyrocatechin</td>
<td>165</td>
<td>11</td>
<td>13-14 Very strong, very clear with cold gradations</td>
</tr>
</tbody>
</table>

It will generally be seen from this that only those developers gave strong density (that is, vigorous negatives) which required a somewhat long time for development,—that those where development had to be interrupted after 2 minutes gave a normal and not quite satisfactory density, but this is of course quite reasonable, as in 2 minutes the developer could not get quite to the bottom of the emulsion, so that the bromide of silver affected by the light was not quite reduced. In this case it is not possible to render the values of the light in their proper proportion by development because the proportion from white to black in nature is transformed in the negative from grey to black—that is to say, according to the negative a more or less flat image is obtained with depreciated contrasts.

The most rapid developer is Metol, the slowest are Pyrocatechin, Hydroquinone and Glycin. Most vigorous negatives resulted with Pyrocatechin, Glycin, Hydroquinone and Adurol, the clearest with Pyrocatechin, Edinol and Glycin.

The keeping qualities of ready made solutions are good with Rodinal but first class with Adurol. Ortol and Amidol also keep very well; Edinol and Pinakol keep less well.

If a developer brings out the light values offered by nature (provided a harmonious working photographic plate is used) a lantern plate according to this negative (with the same exposure, the same plate, and the same development) must be developed in the same time, and must be so that when the negative is superposed all the tones will disappear in the diapositives—that is, a good clear tone will be seen without markings. In order to compare the developers above-mentioned with this effect, the following experiment was made:—From a negative obtained with Rodinal a lantern plate was made, with an exposure of 120 M.S.K., and was developed for 3 minutes with Rodinal, then a lantern plate of the Edinol negative (under the same circumstances) was made, and in the same manner of all the ten negatives positives by development with the respective developers were made. These diapositives showed that the last readable sensitometer numbers 12-13 disappeared, that is to say, could not be read any more, so that in most cases only the 11 could be read. Only with Ortol and Glycin was it possible to distinguish the No. 12.

As far as the character of the lantern plates was concerned, those with Rodinal, Edinol, Pinakol, Amidol and Metol developed flat, that with Ortol fairly vigorous, those with Adurol and Hydroquinone vigorous, those with Glycin and Pyrocatechin very vigorous. The results can therefore be easily seen. If the negative was so that it did not render the light values of nature exactly, viz.:—flat, the fault in the diapositives was of course correspondingly larger and gave a comparatively still more flat result.
In superposing the two images no even tones could originate and the negatives preponderated —this was also the result of the experiment.

The negatives preponderated with Rodinal, Edinol, Pinakol, Amidol, Ortol and Metol. All these developers had not, in the stated composition, rendered nature correctly. The vigorous diapositives, according to the vigorous negatives, however, corresponded with the requirements by giving practically clear dark surfaces. The developers giving this result were Pyrocatechin, Glycin, Adurol, and Hydroquinone. It could be said that an exposure of 120 M.S.K.F. Sensitometer (which always has a yellowish colour) is not equivalent to one of the negatives having a grey tone, and, as a matter of fact, the compensation from positive to negative was not in the best case completely satisfactory. I therefore made, by means of the Adurol, Glycin and Hydroquinone diapositives still copies in 120 M.S.K. and developed same with the corresponding developer. These duplicate negatives showed, when compared with their mother positives, a density of much greater evenness of tone (that is, corresponding disappearance of the differences in light and markings).

From the foregoing experiments it will be seen that Adurol finds too little attention although same is accorded already to Glycin. Adurol has the excellent properties that—

1. Its ready solution, even after the bottles have been opened keeps very long without discolouring, which is a great advantage over other developers like Edinol, Pinakol and Pyrocatechin.

2. That out of the four developers giving good density, it works comparatively the quickest.

3. That the negatives, in comparison with the values of light, are very true and thus excels all rapid developers. As against Hydroquinone it has the advantage that it is very little influenced by temperature. Those who care for comfort use the ready solution, but in such a case they do so at the expense of the true rendering of the tones.

Finally, I have seen from the foregoing comparison that for most of the developers, and in spite of the great many formulae, even the manufacturers have not always given the correct instructions for use, and I do not say that with all the said developers (when same have been properly tested) equally good results might not be obtained. All I say here is for the same emulsion used for the experiments, and, as the character of the various photographic plates is such a different one than that which I have tested, other developers may be more suitable than those which have given such good results in our experiments. I would therefore advise the photographic plate manufacturers (if they would follow the methods set out above) to find out which developers would be the most suitable for the manufactures, and I would recommend them to give careful instructions to this effect in their printed matter.

* * * * *

The Decadence of Lantern Slides.

EDMUND H. WILKIE,
Late Royal Polytechnic Institution.

WING to a variety of causes some sufficiently apparent and others difficult to define, the status of the lantern slide seems of recent years to have very materially declined, and not only is this the case with painted views, but the general quality of the bulk of photographic slides also indicates a retrograde movement.

In commercial affairs the demand is supposed to a great extent to determine the supply or production, and it would therefore appear at first sight that the demand for the highest class of miniature paintings on glass has declined, and that other kinds have been received with more favour.

This is not altogether the case, but many causes have conspired to alter the circumstances under which these pictures are exhibited, and these causes are responsible for the deterioration which has undoubtedly taken place in the quality of lantern slides.

In the estimation of the writer these results have been brought about to a great extent by the entirely different character of the lecturers of to-day compared with a very few years back when the lecture was in the majority of cases a literary work compiled from a variety of sources. It is true that even then many of our best lecturers were travellers also, but many were not. A man of intelligence who is also a trained platform speaker, having all the traditions of his art stored in his brain, will give a respectable lecture upon any subject provided he has the opportunity of "working it up," but the mere fact of a man having passed through various exciting scenes, or having visited foreign countries is no guarantee that he can deliver an intelligent lecture describing those events or scenes.

Such however is not always the opinion of those societies who engage lecturers, and the general feeling appears to be a desire to have the actual traveller, correspondent, or man of science before them, and to hear what he has.
to say without reference to his capabilities as a lecturer.

In some of these cases the traveller being short of time, and lacking the necessary experience of lantern work, will put the preparation of his illustrations in the hands of a dealer in lantern slides, and trust entirely to him for the result.

As a natural consequence the dealer supplies a large number sometimes, perhaps as many as two hundred and fifty ordinary plain trade photographs, which are rushed through a carrier by the operator, who possibly has no previous acquaintance with the subjects.

It is impossible to describe so large a number of pictures in one hour and a half, until recently no more than about eighty pictures were used, and as each one received some brief notice all were of interest.

In other cases the lecturer, who is also a traveller may secure his own negatives, and here there is an additional interest attaching to them, but to do them entire justice they should be entrusted to a photographer of established reputation for reproduction as slides, and then passed on to the very best available artist. Following this, if the slides are mounted in frames and correctly registered the public then have a chance of getting satisfactory illustrations.

Latterly too, the operator no longer accompanies the lecturer, instead of their being accustomed to work together they meet a few minutes before the lecture as strangers, and not only is this very trying and unfair to the operator, but the character of the slides is necessarily different, no effects are used, no slowly dissolved paintings are introduced, there is nothing beautiful, nothing attractive, nothing that is calculated to impress itself upon the mind in such an exhibition, nothing but a dreary succession of black and white scenes.

If the photographs are coloured carefully much is gained, the "bare" appearance is banished, but where it is desired to create a decided impression miniature paintings copied from photographs should be utilized.

A glance through any of our great picture galleries will prove to us that from a pictorial point of view a bald presentation of nature is not sufficient if we wish to make our scenes attractive. The works of the most distinguished artists mostly contain embellishments and additions which do not actually appear in the natural scene. Something is necessary at times to complete the balance of the picture to intensify the perspective and to make it acceptable to the eye of the ordinary observer, and it is here that the hand-painted slide fills the gap, and is of so much assistance—where the lecturer relies upon strange lanterns, which may possibly be defective, he is sure to use common slides and without effects, the operator too cannot be expected to work effects which he has had no opportunity of rehearsing, and while a system of this kind is in existence, neither the dissolving effect high-class paintings or effects can be successfully utilized, and here we have the principal cause for the decadence of the lantern-slide at the present day.

From a purely educational point of view and where the illustrations are needed simply for instruction, plain photographs of any shape or sizes may suffice, but if the exhibition is to be in any sense of the word a lantern entertainment, then something very different is required, and the lantern department should receive equal attention with the descriptive.

Comparatively few years back the number of subjects to be obtained as photographic lantern slides was very limited, but the quality was decidedly superior to the majority of those made at the present day, one great reason being that the negatives were then all taken by the wet plate process which for this purpose is incomparably superior to the more modern dry plates. The transparencies too were printed either by wet collodion or the beautiful albumen process, the latter being extensively used in the manufacture of French lantern slides, the beauty of which has been seldom equalled and never excelled. The albumen film also allows of special colouring by means of which marvellous colour effects can be obtained.

Uniformity of making is a very vexed question, there is much to be said on both sides, for although a uniform shape may not suit all subjects equally well, or indeed exhibit some to the best advantage, yet the beautiful smoothness which accompanies the change of picture when all occupy identically the same space on the screen, is well worth some small sacrifice in the estimation of many. This, however, can not be successfully carried out without great expense and difficulty, as scarcely any two sets of photographs are now marked alike, and therefore the dissolving effect which possesses so great a charm is an impossibility.

In the opinion of the writer, each of the causes enumerated has in turn, and jointly, had the effect of destroying the popularity of the lantern slide, it is not that slides of equal quality to those formerly used in the most successful exhibitions can not be obtained, but rather that the present systems preclude their use, and it is to be feared that by continually lessening the attractiveness of lantern slides that public interest in them may
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decay. This is to be deplored, and it remains with the amateur exhibitor to uphold the credit of this most beautiful and fascinating method of illustration.

* * * * * *

**Enlarging for Pictorial Work.**

By J. Page Croft.

Concluded.

In our last chat we got as far as the completion of the enlarged negative. And now we have finished some may think, but "and now we start" I say.

Those who seriously wish to come through to the front as picture makers must take up the running where most people leave it. This is the only way to get out of the multitude. There is no room in the crowd, but there is plenty of room beyond. In every walk of life the cry of being overcrowded is the common complaint, because many are either content to stay in the ruck or can’t get out of it. Such do little to improve their trade or profession, and less to enhance their own prospects. One of the greatest compliments I had paid me was by one of the most up-to-date workers in the country when we were together looking round one of the London Exhibitions. We were discussing a picture which we rather liked, when my acquaintance said I should think that’s a straightforward print; the man evidently has not learned the art of printing and should give it to you to do. It isn’t at all sufficient when you have gone to the trouble to get your enlarged negative merely to take a straightforward print off it and consider the thing finished. There are of course many ways of doctoring shortcomings if you have not been able to do this in the making of the transparency or enlargement. Some prefer a pencil, some a brush, and work direct on to the film.

Possibly the simplest way is to paste at the edges a piece of tracing paper over the glass side of the negative and with a stump crayon or pencil work on the paper.

A rough pull off on P.O.P. from time to time will show you where you are, and you are of course not bound to print from the whole of the negative in these trials, but just the portion you are working on.

When you are satisfied on this point the next process to claim your attention must be your medium for printing.

Bromide is simple but generally disappointing on the walls. There is frequently a sunk-in kind of look about the process which is really a scum which in the chemical manipulation is at present at least unavoidable. Another drawback is that the gelatine surface resists any work with the brush on the paper.

Carbon is a very beautiful process and possesses the advantage of colour, but it does not offer a very wide range in printing, and like Bromide shows nearly every mark of the brush in the finished print; the extent can to some extent be avoided by using a little gum in the colour or flooding the print with collodion which obliterates all traces of the brush. Platinotype is a very good all round medium, and the paper is suitable for the little necessary brush work, but development is so rapid as to permit practically no control, all the work having to be done on the negative. This brings us to my favourite process Gum-Bichromate. I have been told I have Gum on the brain, and personally I don’t see why I should be ashamed of it or deny it, for I claim and can prove that this method of printing will not only do all that any process can, but a great deal that no other medium can accomplish; you can get any colour on almost any surface; and smooth, soft, tender prints by simply placing the paper in cold water and allowing it to develop itself. Could anything be simpler? or bolder, broader and more vigorous specimens by brush development, the results varying according to the more or less application of the brush. Brilliant work of great depth in the shadows may be obtained by Mr. J. Crwyys Richards’ system of multiple printing, the results of his experiments being recently given in the "Amateur Photographer."

In these two articles the whole matter of choice of paper and colours, preparation of the pigment, laying on the colour, and the subject from beginning to end is so simply treated as to bring it within the grasp of the veriest novice. The greatest power however afforded by Gum is the extreme latitude permitted in development.

A print for instance may be partially developed in the ordinary way in cold water, and then one portion brought up by development in hot. Local application also by spray, brush, finger, bit of wood or wool, or in fact anything which suggests itself for the purpose, will also greatly improve the general appearance.

After treatment in this manner and if then not quite to liking, the print can be dried and put in the dark and brought out next day, next week, or next month and similarly treated again and again providing it has not been exposed when dry to daylight. If then it is not all that is desired the print can be again coated—and in
the frame now made for exact registration,—reprinted and again similarly or oppositely treated to one's heart's content.

All this may be done either in day or artificial light as the paper is insensitive to the latter, and only sensitive to the former when dry and not when wet.

I therefore feel no apology is needed for my special liking for this process, which gives full rein to one's fancy, and permits full play in the exercise of that "spice of devil" which should be in every constitution that is worth anything at all.

I shall be pleased to give any further information on this simple artistic and most fascinating process to any who feel sufficiently interested to write me through the Editor of the paper.

---

Thro' our Lantern.

"ELGE LIST."

Every person connected with or interested in Cinematograph matters would do well to secure a copy of the above list, which is issued free every month, from Messrs. L. Gaumont & Co., 25 and 22, Cecil Court, Charing Cross Road, W.C. This monthly circular is a list of new film subjects and of other productions issued by Messrs. Gaumont & Co., and in this month's list we notice a number of interesting subjects from different parts of the world, together with several new comic films just added to the Elge collection.

A number of announcements are made in the list concerning novelties of all kinds likely to interest Cinematograph exhibitors, amongst which mention is made of the Chronophone, a new invention combining Cinematograph and Phonograph, by which it is claimed that absolute synchronism has been obtained at last. It certainly will be a great advantage if complete, simultaneity of sound and action has been achieved, and we hope to have the opportunity of seeing the apparatus at work before long and reporting further in respect to same.

The Elge list is sent free every month to those having sufficient interest in such matters to make application for it.

We had an opportunity to examine some very fine Malarial Slides, published by Messrs. Newton & Co., 3, Fleet Street, London, E.C., from Negatives by Dr. Harold Spitta, of the Seamen's Hospital. These slides supply a long felt want to all lecturers on Zymotic and other diseases. We note one very interesting item to Vegetarians, a Mosquito with parasite in its proboscis was fed for 45 days on Bananas, and did not infect the fruit, but as soon as it was placed on a piece of meat the parasite was at once injected therein. The following is a list of the subjects which retail at 1/6 each slide:—
1. Filaria Bancroft, male parental form.
2. Complete long sect through a Filariated Mosquito showing parasite in muscles.
3. Culex pipiens.
5. Young Filaria in thoracic muscles of Culex.
6. do. do. do. more mature.
7. do. do. do. do.
8. do. do. do. do.
9. Young Filaria in thoracic muscles of Culex, seven days old.
10. Young Filaria in thoracic muscles of Culex, mature worms migrating to proboscis.
11. Young Filaria in thoracic muscles of Culex, mature worms, 16 days old, at base of proboscis.
12. Filaria in proboscis of mosquito.
13. Filaria in proboscis of mosquito.
15. Filaria duirna in blood with sheath × 500.
16. Filaria demarquaii in human blood × 500.
17. Filaria ozzardi in human blood × 500.
18. Filaria Nocturna removed from proboscis of Mosquito after 45 days' sojourn.

Our Book Shelf.

Has received a very welcome addition in shape of a useful little book called, "Figures, Facts, and Formulae of Photography." Edited by H. Snowden Ward, Esq., F.R.P.S., Editor of Photograph. A wonderful amount of information is pressed into a small space, and we must congratulate the editor upon the results, he has evidently spared no pains to condense information, and our advice to all readers is to obtain, without delay, a cloth bound volume at 2/-, it will save its cost over and over again in a very short time during the season.
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By J. HAY TAYLOR.
FASTEN IT ON THE LID OF LANTERN BOX.
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Professional cards inserted for 2/6 per annum. The Journal will be sent post free for a year for an additional 2/6.
Correspondence.

ROYAL HOTEL,
TORQUAY,
March 6th, 1903.

"DEAR SIR,

As a constant reader of your Journal I thought the enclosed cutting might interest you. I am a Lanternist dating from the Old Polytechnic days, and bound to admit that the Lecture described in a chatty fashion in the said cutting, was the best I have heard, while the experiments were clean, smart and brilliant, and the Lecturer a wonderfully expert man at the lanterns.

Yours faithfully,
F. ELLIOT,"

"OPTICAL PHENOMENA."

When the "chief," in a bland way peculiarly his own, intimated on Monday afternoon that that evening there was an "Ellacombe Mutual," and added the words "Will you please "do" this?" the wind was howling, the office window threatened every moment to be blown in; the rain, the pitless rain was drenching everybody whose business brought them out (nothing else would, I was sure). I do not disguise the fact that I wished that wretched "Mutual"—well, further! especially as I had "fixed up" a cozy hand at whist at a friend's house for that night—I felt spiteful. I determined to have a cab and charge it to the office, so as to make myself as disagreeable as possible.

Later on I started, it was raining harder than ever. By the time I reached the Town Hall, I had already had enough. No cab to be seen, no umbrella would shelter me in such a wind; I tried it, but it was inside out before I could get it over my head. No one was in the streets, and I thought no one would be in the room, and that there would be no lecture; I should get my note book, and surveyed the situation. I never saw anyone whose business brought them out (nothing else would, I was sure). I do not disguise the fact that I wished that wretched "Mutual"—well, further! especially as I had "fixed up" a cozy hand at whist at a friend's house for that night—I felt spiteful. I determined to have a cab and charge it to the office, so as to make myself as disagreeable as possible.

Having placed my reeking mackintosh at the end of the room among a pile of others, I sat down, took out my note book, and surveyed the situation. I never saw such a heterogeneous lot of apparatus before. There were four projecting lanterns, mirrors flat, mirrors concave, mirrors strung on a bar like herrings, mysterious pipes coming from a bucket suspended from the ceiling, coursing through curious pieces of "machinery," and finally ending in a foot bath; then there were prisms of all sorts, a diffraction grating, coloured cards, specimens of colour printing, which I think I have seen at some distant date in the office of the T.T., sent there by some enterprising firm as specimens, and no doubt handed to the lecturer as a scientific curiosity, a few adjustable stands, and some odds and ends with which I am not familiar. These afforded plenty of diversion pending the commencement.

Then the Chairman, the Rev. T. L. Kember, announced that unfortunately their esteemed Vicar, the Rev. J. P. Baker, had met with a slight accident which prevented him from being with them 'that evening, but he hoped the audience would accept him as a substitute. He thought Mr. Stephen Bretton (he of the Navy League) needed no introduction to an Ellacombe audience. Of course he didn't; so without more ado the "show" started. Mr. Bretton began by referring to the fact that though they called themselves a mutual improvement society he thought the term mutual entertainment society was more to the point, except when they held discussions about trams. Then they became a municipal improvement non-procrastination society—here everybody laughed. The lecturer at once took a more serious turn, and pointed out that when God said "Let there be light" He alone knew how that this was perhaps the most important of all His creations. Then came the reasons why. Next, reference was made to the fact that white light was not as was generally understood, a primary element, but was made up of seven different colours.

The first recorded scientific fact referring to colour was, said the lecturer, when "God set His bow in the Heavens." Then Mr. Bretton introduced us to a bulb of water which he called his rain-drop—projected a powerful light upon it, and beheld a small rainbow about 2½ ft. diameter appeared. Then came perhaps the most wonderful experiment I ever saw, the lecturer turned on a stream of water (this is where the foot bath came in), and by some ingenious arrangement of the light it became a stream of liquid fire, then it was colored a brilliant red, and then orange, then yellow, then green, then blue, green, and finally violet. The applause was tremendous; it was deserved. Next came the projection of a very beautiful spectrum band; this was in turn projected on to seven mirrors when a rather peculiar thing happened, the spectrum band became distributed like a pack of cards thrown down at random. They were then brought into line in their respective orders, then they were all converged on to one spot, and behold a white light appeared. One of the colours then being removed, it was no longer white, but coloured, thus affording a convincing proof that to obtain white light all the pure seven colours must be present.

The printing of a photograph by white, red, and violet lights yielded a strange result to the uninitiated photographers; it seemed curious, however, that the dark looking violet end of the spectrum band, a seventh part of the same beam of light, was equally as effective photographically as the whole pure white beam, whereas the red end of the spectrum gave no impression at all. Many startling and curious experiments in complementary colours followed, and finally a complete lecture in colour photography, with the actual building up of the coloured image on the screen before the eyes of the audience.

Mr. Bretton's object in the latter portion of his lecture seemed to be to explain very practically why some of the older stained glass windows in our cathedrals and churches possessed the extraordinary property of yielding a white light, although they were composed entirely of colours—some wonderful chromotropes, wheel of life and chameleon slides, concluded this most enjoyable evening, enjoyable principally because it was something quite new and a delightful contrast to the endless panorama of pictures, good and bad, usually met with in a "lantern show;" and largely due no doubt, to the smart manner in which the triple combination of lanterns, like the triple expansion engines of a battleship, were manipulated by Mr. S. Bretton, junr.

Mr. Bretton was cordially thanked, on the motion of Mr. GORDON MURRAY, seconded by Mr. FARLEY.

I was very glad I went, after all, and I withdraw my evil thoughts at first expressed. When we came out the stars were shining.

SPECTRUM.

The Torquay Times and South Devon Advertiser.
Answers to Correspondence.

M.A.S., Iowa. Thanks for letter received, will write re Standard Diameter. Ads. — Yes, will try.

F.A.A. Ottawa. Attended to last mail.

Fuerst Bros. See present issue.

M. Marx. Yes, by all means.

A.L.H. 1, 2, 3, 4, 5, is the order we should select.

W. Ottawa. — Asks, Have any trials been made in England of the vapour lights manufactured in U.S.A.? Answer. — We do not know of any, if any of our readers use these lights will they kindly send particulars.

2. They are the best so far. Varies according to burners; two burners about 120 c.p.; three burners 150 c.p.; four burners 170 to 180 c.p.


- Patent Intelligence. -


Magic Lantern Applications.

No. 3563. Improved objective for cinematographic and like projection. A. E. E. Braund. 16th February (date applied for under Patents Act, 1901, 4th August, 1902, being date of application in France.) Complete.


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The superiority of this Jet over all others remains fully established. It will yield THE FULL 1,800 TO 2,000 CANDLE-POWER (so-called) of the ordinary mixed jet when taking its supply of coal gas direct from the town’s pipe, or even from a bag without any pressure at all.

If a town’s supply is not available, it will work just as well with coal gas from a cylinder. We cannot see why ordinary mixed jets should be purchased which cannot offer these alternatives. As for blow-through jets, ejector or otherwise, we do not know why they should be used at all, when with the same economy and convenience of working, the Injector Jet will give two or three times the light. By removing the Injector nipple the jet becomes an ordinary mixed jet. This can be done whenever it is desired to work with oxygen at low pressure, and coal gas from a cylinder.

The working of the Jet is simpler than that of an ordinary jet. When the tap is once adjusted, it does not need to be touched again when using town gas. The turning on or off of the oxygen supply regulates automatically the supply of coal gas. This is a great convenience in actual use.

Most existing jets can be fitted with an Injector to enable them to take their coal gas supply from the house pipe.

The Jet will in certain cases be sent on approval on deposit of purchase price. Further particulars free on application to MANCHESTER OXYGEN (BRIN’S PATENT) CO., LTD., GREAT MARLBOROUGH STREET, MANCHESTER.
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"The Sunflower and the Sun."
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"Eileen Allanah."
"Everybody's Loved by Someone."
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"The Village Blacksmith."
"Alone on the Raft."
"The Children's Home."
"The Little Hero."
"Killarney."
"Anchored."
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Slides made from Customer's Negatives by the wet Collodion Process.

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