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Specialities.

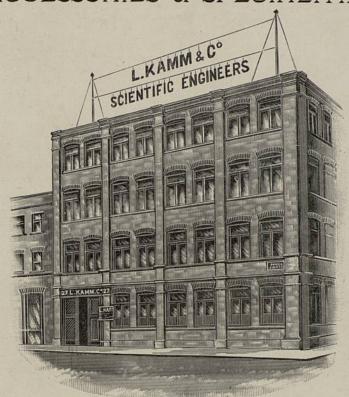


ND C37/840

Catalogue of



ACCESSORIES & SPECIALITIES.



W.O 8° 937 BR

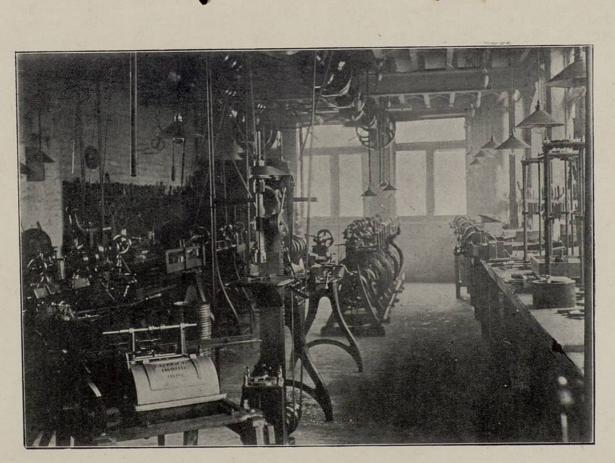
Manufactured by-

L. KAMM & CO., Scientific Engineers & Manufacturers,

Show-Rooms, Offices & Works:- { 27, POWELL STREET, GOSWELL ROAD, LONDON, E.C.

TELEGRAMS: "ZEROGRAPH, LONDON,"





3 Mechanical Fitting Department. &

* TERMS. *

DELIVERY. Free at our Works. All goods are most carefully packed; we do not, however, hold ourselves responsible for breakages or loss in transit. Should goods be found damaged on arrival, claim should at once be made on the carriers.

PACKING and cases charged for at cost price, and not returnable.

CARRIAGE charged forward.

payment. Cash with Order, except with Firms desirous of opening an account, in which case they should furnish two Trade References (preferably London). Such accounts are payable within one month following delivery of goods, and are subject to a cash discount of 2½ per cent.

Accounts three months overdue will be debited with 5 per cent. interest.

Cheques and Postal Orders should be crossed, "London and County Banking Co., Limited."

FOREIGN ORDERS should be accompanied by a remittance, or arrangements should be made for a first-class English firm to pay cash on presentation of Bill of Lading.

SHIPPING. Apparatus and Plates are not sent on approval to Foreign Countries. All goods we guarantee to be of the very best workmanship, and for the manufacture the finest material only is used.

All Prices in this List are subject to change without notice.



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play, or some busy street scene—he places the camera on a tripod, or some solid body, such as a wall; the telescopic part of the camera is then pushed out to its furthest limit by means of the "mover" at back, the lens cap is removed, and the handle of the apparatus is turned at a moderate pace until the plate is all or partially covered, as may be desired; the travelling register at the back of the camera showing how much of the plate still remains to be covered.

When in the dark room, the negative plate is taken out of the camera and developed in the same manner as a plate used in ordinary photography, and when dry the positive or transparency is printed by contact.

In order to display the Series of Pictures,

the transparency, or positive plate, is placed in the camera in the same manner as was done with the negative, but with the emulsioned side away from the lens.

The stop is taken from the lens, so as to permit more light to pass through it, and the circular revolving shutter, used when taking photos, is exchanged for the triangular - shaped projecting shutter.

The **Kammatograph** is placed about 6-7 inches away from a lantern—which should be illuminated with lime, electric or some other powerful light.

Before starting the operation of projecting, the telescopic part of the camera is pushed forward to its full extent, and on the handle being turned the pictures will appear on the screen in animated



Fig. 4.

form, and in a clearer manner than if derived from a celluloid film, in consequence of glass being more transparent to light. It may be mentioned that if the apparatus is placed, say 20 ft. from the screen, a picture of about 6 ft. square will appear and a clear detail be given.

The more perfect the amateur is in the taking and developing of photos, the better will be the result when displayed on the screen.

Kammatograph for 500 and 300 Pictures.

Two kinds of Apparatus are manufactured, both of the same size and price, but with the difference that one will take a series of 500 photos, and the other a series of 300 photos, the latter pictures being nearly double the size of the 500-size pictures; and, though both series can be subjected to an immediate reverse action, causing them to be shown over again, and thus prolonging the subject when displaying on the screen, yet the 300 series looks more pleasing when groups of people have been photographed.

The Kammatograph is constructed of best Spanish mahogany, aluminium, and gun metal, and all fittings are of the best workmanship. It is covered in special imitation leather which is waterproof. The dimensions are, height, 14 ins.; breadth,

131 ins.; width, 31 ins.; and in weight about 8 lbs.

The lens is constructed on the Petzval formula, and is of the finest make, working at $\frac{F}{5.6}$ of 1 inch focus. The same lens is used as an objective for projecting the pictures. Experiments have proved that no better results can be obtained with any other objective lens, constructed for this special purpose of projecting Kammatograph pictures.

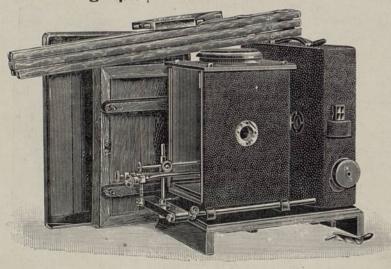


Fig. 5. Kammatograph, with Lens and full Instructions *£6 10 0 Kammatograph and Accessories, including Tripod, Printing Frame, Projecting Lantern, Blowthrough Jet, Developing Tray (Fig. 5) complete *£11 11 0 The Best Value in Photography ever produced at the price.

Plate Developing Trays are made of Xylonite and can be had in two colours. The dimensions are 15 ins. by 12 ins. Price 5/6 each.

Washing Tank.

Japanned Zinc with Draining Back, and Syphon made in one size only, so as to take 12 Kammatograph plates or less in number.

Price 10/6.

Chemicals.

All chemicals for the developing of plates can be supplied at the lowest market prices.

WATERPROOF CANVAS CASE FOR KAMMATOGRAPH.



Fig. 9.

It is strongly made, and of the best material. It will be found very handy when travelling, saving the Apparatus from wet and damage.

Price 10/6.

Two=Fold Ash Tripod.

Specially constructed for the Kammatograph.

Price 15s.

0

It is very rigid and comparatively light.

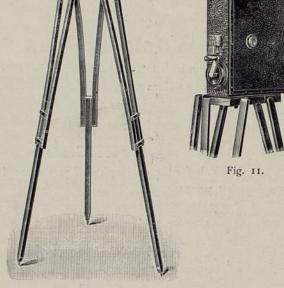
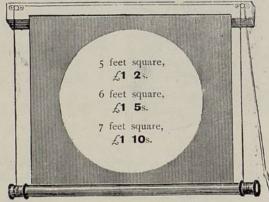


Fig. 10.

Opaque Screens.



This Screen is recommended for Lantern and Cinematograph pictures It is mounted on rollers with cords for drawing up and down when not required.

Fig. 12.

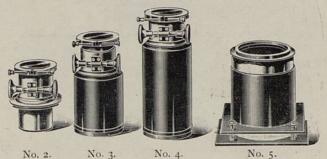
Portable Screen Stands.

These Screen Stands are made of light American wood and alluminium connecting pieces; they are light and compact for carrying.

For	5-foot	Screen	 	price	1	15	d. 0
	6-foot		 ***	,,			
	8-foot	,,				0	

For the above Stands we recommend Calico or Linen Screen, having no gloss.

Optical Lantern Objectives.



No.	1.—6-inch	focus	Dou	ble	Combina	ation	Acro-	£	S.	d.
					Sliding					
	Double	Pinion			***		Price	0	15	0

Fig. 13.

No.	2. 6-inch				
		make an			
	Pinion Mo	ounting and	I Rack A	djustmen	t, fitted
		cial "Flap			
	inserting	coloured g	lass; fitte	ed with t	he very
	best Acro	matic Lense	S		Price

No. 3. $-9\frac{3}{4}$ -inch focus, the	same	as No.	2, 11	ncluding			
lengthening tube				Price	1	10	0

1 4 0

1 10 0

No. 4.—12 ¹ -inch focus, the	same	as No.	2, inc	cluding			
lengthening tube		· · · · ·		Price	1 12	6	

No.	5.—Lantern Front, highly finished, the external
	part being bronzed and the sliding tube nickel
	plated, which is provided with an adapter for
	taking 6 in. by 93 in. and 121 in. objective lens,
	with lengthening tube Price

All Lantern Fronts are made on the interchangeable system.

KAMMATOGRAPH Lantern.

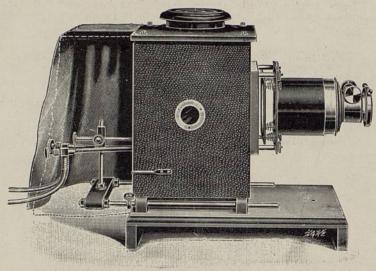


Fig. 14.

With 4-in. Condenser and Blow-through Jet, 6-in. Objective Lens.

Price complete £4 10 0.

This Lantern is made of mahogany wood, lined with iron and asbestos. The ventilation is excellent, the lamp keeping beautifully cool. An iron and asbestos tray and two curtains are provided, which can be readily attached or removed. The jet or arc lamp, whichever it is that is employed, is carried upon two sliding bars, which are well seen in the illustrations. Upon these bars are stops, which are set so as to have the light in the exact position required when in use, as soon as it is pushed in right home to the stops. The lamp can in this way be slid out of the lantern for attention of any kind should it be necessary, and is pushed back into its correct position instantaneously, and without the necessity of looking on the screen at all, to see if it is right or not.

This class of Lantern is the same as supplied with the II guinea set of the **Kammatograph** outfit, but without the front and objective lens used for showing ordinary lantern slides, which price is £2 5 0 extra.

Lantern in Travelling Box.

This Lantern is of the same kind and construction as the Kammatograph Lantern. It is suitable for electric arc light, limelight, oil lamp, or gas jet. The lantern is detachable and goes in a specially well-made Travelling Box, without taking up unnecessary room.

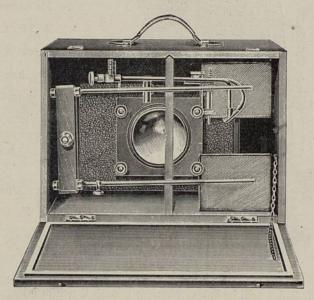


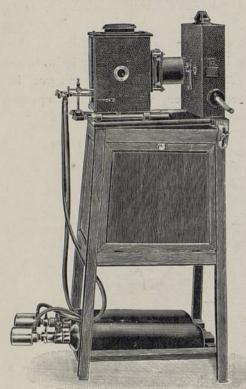
Fig. 15. LANTERN IN TRAVELLING BOX.

Price £5

(including Adjusting Fork, Jet, 4-inch Condenser, Lantern Front with 6-inch Objective Lens, and two Curtains).

The above Boxes are also made in a larger size for taking the Lantern and Accessories bodily, in which case the price would be 5s. extra.

COMBINATION CABINET.



Price of Cabinet

made in American White Wood

£3 0 0.

In Mahogany

£3 10 0.

Extra Charges

for Lantern with 4-in.
Condenser,
6-in. Objective Lens,
Adjusting Fork,
Blow-through Jet and
2 Curtains,

£4 5 0.

Fig. 16.

The above illustration represents our specially-designed Cabinet, which will be found of great practical use in conjunction with the Optical Lantern and Cinematograph. It possesses a rising and lowering top plate, with nickel-plated side guides and fasteners. A receptacle under the top plate is conveniently arranged for storing necessary accessories—such as indiarubber piping, limes, etc. The side doors of the Cabinet drop in a rectangular position, and, being supported by chains, form a handy platform on which to place things necessary for a demonstration.

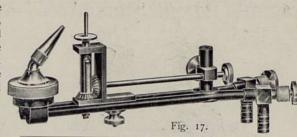
The interior of the Cabinet will be found very useful for storing the Lantern and Cinematograph when not in use. The lower cross bars serve to support the gas cylinders in the event of lime-light being used.

The general appearance of this Cabinet is of handsome design, and would not look out of place when put in a drawing-room.

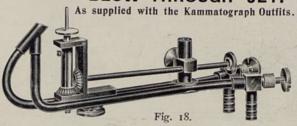
MIXING JET FOR LIME-LIGHT.

This jet is of the best workmanship, fitted with a novel and most effective wheel adjustment for regulating the lime. Nickel-plated and bronzed.

Price £1 1 0.



BLOW-THROUGH JET.



This jet is also of the best workmanship, and fitted with adjustment for raising, turning or lowering the lime. Nickel-plated and

bronzed.

Price 15/-.

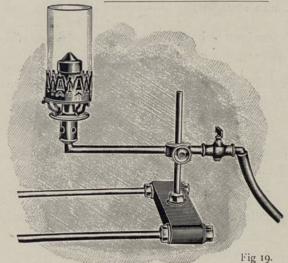
LIMES FOR JETS.

Hardazion Limes (in Tin containing one dozen), for use with the Mixing Jet.

Price 3/-.

Soft Limes (in Tin containing one dozen), for use with the Blow-Through Pipe.

Price 2/-.



INCANDESCENT GAS JETS.

This illustration represents a Gas Jet applicable for all Optical Lanterns.

Price
with Burner,
10/6;

with Reflector, 14/6.

Kamm's Patent "Hand-feed" Arc Lamp.

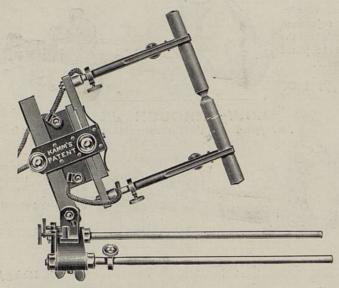


Fig. 20. ARC LAMP.

Price complete, as shown in the illustration, £2 2 0.

This Arc Lamp has been submitted to several tests, and will carry 50 ampères with the greatest safety.

It has a universal adjustment, enabling the operator to obtain the most favourable position of the arc without any complication.

It is highly and perfectly insulated with fibre and mica, and is free from any weak joints likely to give a short circuit.

The Arc Lamp, being collapsible, takes up comparatively little room.

CARBONS (in boxes containing one dozen), 1/6.

The "Electric" Plant Projecting Lantern.

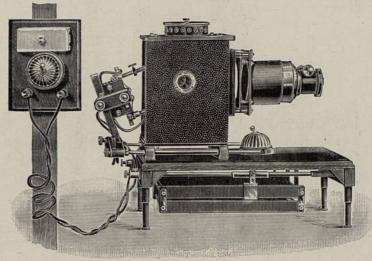


Fig. 21.

Price complete £8 0 0, with 4-inch Condenser and 6-inch Objective Lens.

This Projecting Lantern possesses special features, and is an ingenious combination of a Resistance and Lantern, which makes the apparatus suitable for the professional and amateur lanternist.

It is very compact, having the resistance laid immediately under the baseboard and so is ready to hand for regulating the current. It is perfectly insulated by slate supports, the coils are made of high-resistance platenoid wire, adjustable from 10 to 20 ampères without overheating, which is more than sufficient current for an arc lamp doing ordinary work. It works for Alternating as well as for Direct current at 100-110 volts or less.

The Lantern is made of mahogany, lined with iron and asbestos, and so dispensing with the usual Russian iron, which is heat conducting, and objectionable. The roof is made of the best rolled brass and bronzed: the entire body is mounted on a mahogany base, which is fitted with a novel arrangement of sliding rods for adjusting and fixing the arc lamp in any position. Two curtains (not shown in the illustration) to prevent the light going astray, are supplied, as also an asbestos tray.

The Lantern is well adapted for displaying KAMMATOGRAPH Pictures.

Kamm's Patent Rheostats (Resistances).

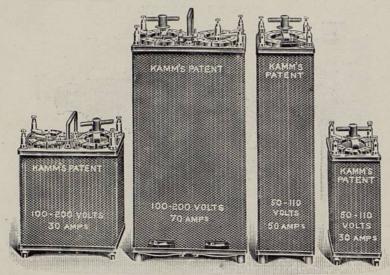


Fig. 22.

These are manufactured in 8 sizes, of which 4 sizes are applicable for 100 to 110 volt circuit (direct or alternating current). The Resistances are constructed on an entirely new principle, having the carbon rods mounted in series on gun metal clamps, which are held in position by two slate plates carried by pillars. In the centre of the slabs which are carried by 4 rods and insulated with fibre tubes, is the contact brush which serves for adjusting the current from the lowest to the highest amperage according to size. This contact brush also serves as a switch. A safety fuse is placed in a convenient position.

The Resistances are furnished on their sides with perforated steel sheet guards, gauged 20 B.W.G. which gives them great stability. This style of Resistance is most reliable and portable, and half the weight of any other taking the same amperage. They are perfectly safe, and there is no danger of overheating loose contacts, or wire snapping.

The following sizes are kept in stock and can be supplied immediately:-

No.	Adjustable for the following Ampèrage	100 to 110 volts.	100 to 200 volts.
1	10—20	£4 0 0	£7 15 0
2	20-30	£4 4 0	£8 0 0
3	30 -40	£5 5 0	£8 10 0
4	30-50	£6 15 0	£12 0 0
5	40—70	£7 10 0	£13 0 0

The above prices include a Mahogany Box neatly mounted with handle and fasteners.

Ouotation given for any amperage or voltage other than the above.

ELECTRIC LANTERN

(With Kamm's Patent Arc Lamp).

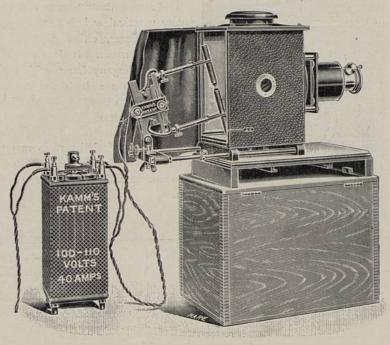


Fig. 23.

With 4-inch Condenser and 6-inch Objective Lens. Complete £6100. Without Box £600.

This Lantern is of full size, and applicable for either Lime or Electric Light. The illustration shows it in use with Kamm's Patent Arc Lamp and Patent Rheostat (Resistance). The Lantern will stand the sewerest heat test, being made of mahogany lined with iron sheet and asbestos. It has a tray of iron and asbestos which can be readily removed without disturbing the light. Two curtains are provided which are readily attached or removed from the Lantern, thus giving the light a perfect enclosure, and preventing the rays of light from going astray.

This Lamp is highly recommended for powerful electric light, taking from 30 to 50 ampères, and is in conjunction with the Patent Rheostat (Resistance) an absolute reliable and perfect installation of handsome design.

The Front is made interchangeable, so as to take a 6-inch, 94-inch or 124-inch objective lens.

The whole of the Lantern is detachable, and fits rigidly and compactly into a travelling-box, similar to that shown by the illustration (Fig. 12).

When the Lantern Front is removed, the Kammatograph can be screwed upon the base-board in order to display the filmless Cinematograph.

WALL SWITCH BOARD.



a very practical switch to carry up to 30 amperes, either alternating or direct current. It is mounted upon a mahogany frame with cutout and two terminals for taking the flexible wires in connection with the Rheostat.

The above illustration represents

A similar switch board is manuactured to carry 50 amperes. Both sizes can be had with glass case and lock.

Fig. 24.

To carry	Prices.	With glass case & lock.
30 amperes	£1 0 0	£1 10 0
50 ,,	£1 15 0	£2 5 0

FLEXIBLE WIRE.

Double Cotton and India-rubber covered.

To carry	per yard
30 amperes	2/6
50 ,,	3/6



Fig. 25.

1 Set of 4 Brass Connecting pieces for ends of Wire to fit the Standard size Terminals, 4/- extra.

CHEMICALS.

All prices are subject to fluctuations of market.

Bottles charged extra, except where marked.

Sod. Sulphite 1d. per oz., 8d. per	1b.
Citric Acid 2d. " 2/-	,,
Pot. Bromide $3\frac{1}{2}d$. ,, $4/6$,,
Potassium Hydrate (caustic	
potash) sticks in 1-oz. bottle 3d. " 1/3	,,
Sodium Hydrate (caustic	
soda) sticks in 1-oz. bottle 3d. " 1/3	,,
Soda Carbonate 1d. " 6d.	,,
Carb. Potash — 2/-	,,
Metol 2/3 " —	
Hydrokinone 1-oz. bottle 10d. " —	
Pyrogallic Acid 11d. " —	
Rodinal 3-oz. bottle " 1/6	,,
Hypo. per lb price 2d. 7-lbs price	1/
Alum. Powdered per lb. " 2d. 7-lbs "	1/

Hydrokinone Developer 2 bottles of 80 ozs. each (including stoppered bottles), price 5/-.

Press Opinions.

Some

DAILY MAIL, January 3rd, 1901.



— 29 —

PRESS OPINIONS——continued.

THE BRITISH JOURNAL OF PHOTOGRAPHY. March 9, 1900.

THE KAMMATOGRAPH.—This instrument, so named after its inventor, Mr. L. Kamm, an electrical engineer, is the latest contribution to the art of cinematography, and is remarkable for the circumstance that it does not employ celluloid or any other kind of film. The pictures to form what is popularly known as an "animated photograph" are taken to the number of nearly six hundred, upon a circular glass plate coated with gelatine emulsion. This plate which is twelve inches in diameter, fits into the camera, and by turning a handle it is caused to rotate, to make the necessary stop for exposure at every fourteenth of a second and to execute a slow lateral movement, so that the pictures are impressed spirally upon its surface. The negative so taken is developed in a dish in the usual manner, and a positive, upon another circular plate, is printed by contact. The positive disc, after development, goes into the camera, the whole contrivance is fixed up in front of a lantern body, and the animated picture is projected upon a screen. The Kammatograph is intended for home use by amateur photographers, and the projected pictures are large enough for such a purpose. The instrument is thoroughly practical in character, and speaks well for the ingenuity of its inventor.

SCIENCE GOSSIP. February, 1901.

Last month we drew attention to this remarkable invention, by which the use of the long tape celluloid film is avoided during the exhibition of moving pictures. Those who have exhibited with that type of film are familiar with the anxieties that arise during its rapid run past the lantern lens. Mr. Kamm some time ago realised this difficulty, and consequently set to work to design an instrument through which the use of the tape is dispensed with, by printing the pictures in spiral form upon a circular glass plate or disc.

Having conceived this idea, it became necessary to design certain mechanical movements enabling the operator to revolve this plate in such a manner as to exhibit every picture in sequence and with rapidity. . . .

A remarkable feature in connection with this invention is, that it serves the purpose of a camera and projector combined, thus dispensing with the use of two apparatus, one for taking the photographs, the other for displaying them, as is the case with the ordinary celluloid film. All that is necessary is to have a circular glass plate ready sensitised, and then placed within the instrument in a dark room, when the amateur photographer, after arranging the apparatus in position, simply removes the cap and turns the handle at the required speed until he reaches a check which informs the operator that about 600 pictures have been taken on the plate. The cap is replaced, the instrument returned to a dark room, the negative plate developed, and, when dry, printed in the ordinary manner by contact. Thus it will be seen that moving pictures of important or entertaining events may be taken with this simple arrangement by persons of ordinary ability, and exhibited within an hour or two on a screen showing moving pictures about 6 feet square in clear detail. . . . On account of its simplicity and comparatively small cost Mr. Kamm's new instrument will make quite a revolution in the exhibition of moving pictures. Especially is this the case, as by this means the duration of exhibition of each picture is lengthened, thus obtaining a prolonged view of the subject under observation.

PRESS OPINIONS—continued.

THE AMATEUR PHOTOGRAPHER. December 21, 1900.

In the course of our notice last week of the exceedingly ingenious little instrument for animated photography called the Kammatograph, a slip of the pen which drew up the report did the machine a serious injustice, which we would gladly set right. 600, and not 60, is the number of exposures made by the Kammatograph in the course of the revolution of its circular disc-like plate. From this circular plate, as already described, a transparency is made by contact, and projected by using the lantern in conjunction with the Kammatograph, the exposure shutter being substituted by a projection shutter.

The Kammatograph is made in two forms, the one giving 600 exposures, as

stated, and a larger pattern, giving 300 exposures.

Mr. Kamm (L. Kamm and Co., 27, Powell Street, Goswell Road, London, E.C.) is himself a scientific engineer and expert, and the efficiency and general neatness of the instrument he has invented does him credit; the substitution of a circular plate for the long, ribbon-like film is of itself no small advantage, both for subsequent storing and also when developing. For those who do not require very long series of pictures, the fact that the exposure can be arrested at any time and continued at will on the same or any other subject is an immense gain.

Not only for public entertainment, but for home or drawing-room use, in which direction cinematography is gradually and surely gaining popularity, we

regard the Kammatograph as an ideal instrument.

THE PHOTOGRAPHIC NEWS. March 9, 1900.

Amateur photographers who have not come into the world with the figurative silver spoon in their mouths, have been debarred from practising that very interesting phase of the art known as kinematography, or animated picturemaking, because of the great expense of the celluloid films as compared with the plates used in their ordinary work. Mr. L. Kamm has come to their rescue by the invention of a thoroughly practical camera and projector combined, which he calls the Kammatograph. He discards celluloid altogether, the pictures being taken on a gelatine plate of circular form, which moves behind the lens in such a cunning manner that the little pictures are printed upon it, to the number of several hundreds, as a spiral pattern. The complete apparatus costs no more than a good camera of the ordinary kind, and the worker has nothing to deal with that comes strange to him. He can develop his own negatives, and from them he can print positives by contact in the way customary with lantern slides. Everything is on a small scale, and it is not pretended that the apparatus rivals the biograph, but it is good of its kind, and should prove a boon to amateurs who are seeking some new outlet for their photographic energies, and a sure means of entertaining their friends.

THE PRACTICAL AND JUNIOR PHOTOGRAPHER. September, 1900.

The Kammatograph is a new living picture taking machine which has several novel features about it, the chief being that it takes circular plates instead of films, which is a great thing.

PRESS OPINIONS—continued.

THE PHOTOGRAPHIC NEWS. November 23, 1900.

L. Kamm and Co., of 27, Powell Street, Goswell Road, E.C., have introduced an extremely ingenious kinematograph apparatus, by means of which animated photos may be taken and projected.

We have had an opportunity of seeing this instrument in operation and carefully examining its construction, and it is just such an instrument as is well suited to the amateur and gives some excellent pictures, those that we saw being projected on a disc of at least 5 ft. in diameter. The adjustment of the picture on the screen is very easy, and there is no flicker or objectionable vibration.

PATENTS. December, 1900.

The fascinating art of cinematography has received a very valuable addition in the invention known as the "Kammatograph," so named after its inventor, Mr. L. Kamm.

We may add that the whole apparatus is inexpensive and very ingenious, and should prove a veritable boon to enterprising amateurs.

The "Kammatograph" is manufactured by Messrs. L. Kamm and Co., of 27, Powell Street, Goswell Road, E.C.

PHOTOGRAPHY. November 29th, 1900.

Thanks to the courtesy of Messrs. L. Kamm and Co., of 27, Powell Street, Goswell Road, London, E.C., we have been able to examine, and to see in operation, a very neat and compact form of kinematograph, which they term the "Kammatograph."

The Kammatograph is an extremely simple instrument in construction and design, and is correspondingly low in price, costing only six pounds ten shillings. If fitted with all the needful accessories, including a lantern for projecting, a developing tray, tripod etc., its cost complete is eleven guineas.

The Kammatograph has been designed especially for the use of the amateur photographer. To this end the necessity for apparatus of a special character for developing long lengths of film is done away with, and the camera has been made extremely portable and compact. Those who dislike celluloid film find that in this they have it dispensed with, while the rigid nature of the glass allows of the instrument being so arranged as to dispense entirely with wear and tear of the pictures themselves. Those who have used kinematographs know what a very serious matter this item of wear and tear—especially tear—of the films is. In the present instrument, as we have said, it is dispensed with, and short of actual smashing the plate after fifty shows is as good as it was at first. On the other hand, of course, the length of display is limited by the number of pictures that can be got upon one plate, i.e. about six hundred. So that the show of one plate put through once lasts about two to three minutes.

The instrument is well thought out, and very nicely finished. It should be very popular amongst those who wish to take up kinematography as an amusement, and are deterred by the expense of the bigger machines.

PRESS OPINIONS—continued.

THE OPTICIAN AND PHOTOGRAPHIC TRADES REVIEW. November 16, 1900.

As regards the efficacy of the machine, we have personally inspected it and have no hesitation in pronouncing it to be perfect in every detail. Mr. Kamm visited THE OPTICIAN offices on Lord Mayor's Day, for the purpose of animatographing the show. Although the day was not an ideal one from the photographer's point of view, the results, which we have seen, proved to us that the "Kammatograph" is a great thing in the amateurs hands, and should have a bright future before it. As regards price, it is gratifying to note that that all-important factor is no higher than the well-to-do amateur would pay for a first-class camera.

THE PHOTOGRAPHIC DEALER. November, 1900.

Cinematography is brought within the reach of the merest tyro by means of the Kammatograph. This invention of Mr. L. Kamm's is an apparatus for taking animated photographs in a spiral form on a glass disc, a portion of which is shown in our illustration, Fig. 3. In this way it is specially useful for the amateur photographer, for the atter-manipulation of developing and printing are no different from developing an ordinary negative and making therefrom an ordinary transparency. The invention was made early in the year, but it is only now being placed commercially on the English market, and will be manufactured only by the inventors, Messrs. L. Kamm and Co., of 27, Powell Street, Goswell Road, London, E.C. The Kammatograph is not only a camera for taking animated pictures, but it is also a projector for displaying them, as in the case of ordinary celluloid films.

THE PHOTOGRAM. January, 1901.

The Kammatograph is an ingenious solution of the problem of obtaining kinetographic projections from flat glass plates. The instrument, which we have seen working, is likely to be taken up by amateurs who are anxious to get kinetographic records of their friends. There is very little flicker, and obviously no danger of encountering County Council regulations which are applied to film kinematographs.

PHOTOGRAPHY. November 22, 1900.

The firm of L. Kamm & Co. make a very compact and well-designed lantern, adapted to take either lime-light or an electric arc lamp. We recently had an opportunity of seeing one in action, and were particularly pleased by its neat character. We should call it pre-eminently a handy lantern.

In the lantern shown, Messrs. Kamm's arc lamp is illustrated in position. This, like the lantern, is a thoroughly workmanlike and practical design, very simple, but one which must be a pleasure to use. It has all the necessary movements and is centered in an instant, and, what is more, is kept there, it being quite impossible to knock the lamp out of centre by an accidental jerk, or to alter its adjustment, unless it is done deliberately.

PRESS OPINIONS—continued.

W. A. Cassingham, Esq., of Tunbridge Wells, to whom we supplied a Kammatograph, writes:—"I received the Kammatograph quite safely, tried it with a lantern, and am glad to say I am greatly pleased with same. I consider it a most ingenious piece of apparatus, and shows an excellent picture of good length. I should never have thought it possible to have got so long a picture on the disc." The same gentleman, writing some weeks later, said:—"I am more than pleased with the instrument; it works beautifully."

A gentleman residing at Carlisle to whom we supplied one of these lanterns, wrote us as follows:—"I have tried your lantern and am delighted with it, and, though I have been several years in business, I must own I have never manipulated a lantern with such ease and comfort. The sliding rod arrangement is excellent."



