

Telephone : 1964 HOP.
Telegrams : "BIOJECTOR," LONDON.

B
SECTION.



THE BEARD BRAND.

R. R. BEARD,
10 TRAFALGAR ROAD,
OLD KENT ROAD,
LONDON, S.E.
ESTD. 1886.

Special Inventions,
Patents and Specifications
a Speciality.

R. R. BEARD is prepared to undertake and make specially any Patent, and manufacture to specifications; also to assist inventors with strict confidence to work out their ideas, regardless of their intricacies, and can at any time be consulted.



REPAIRS AND RENOVATIONS.

Our Works are Replete with

UP-TO-DATE MACHINERY for repairs to any make of BIOSCOPES, PROJECTORS, Cameras, Printers, Perforators, Arc Lamps, Resistances, Jets, Regulators, etc., in the SHORTEST POSSIBLE TIME at REASONABLE PRICES.



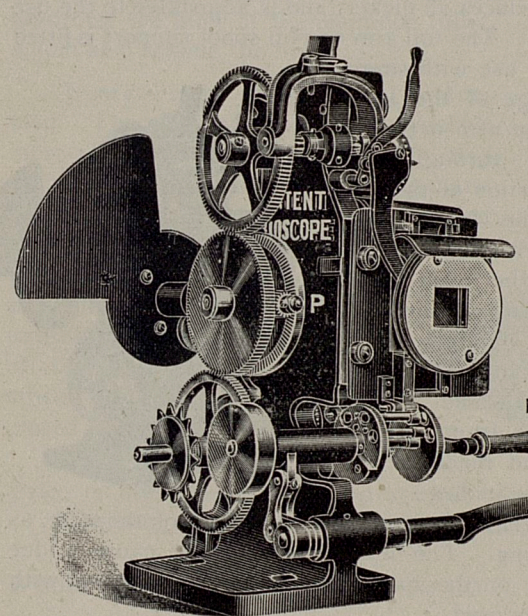
SATISFACTION GUARANTEED.

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R. R. Beard's Patent Perfect Projector.

THE PATENT PERFECT PROJECTOR is so constructed that there is no need whatever to shift the film on the sprockets, or to move the lense (except when focussing). Lense always remains stationary in the correct optic centre, this being of the greatest importance, and the picture is always in the same position on the screen.

The illustration is sufficient for those using the Bioscope Mechanism to show the additional improvements. The dog bearing, which is usually made in the frame of machine, is in this



instance made in a bracket swinging from the sprocket wheel bearing; the dog bracket bearing has fixed to it two teetted sectors, one upon the face of the machine, which engages with the fellow sector by the handle H. This sector has an action which moves the dog up or down as may be required; the other sector has a fellow gearing with it swinging on the centre spindle bearing which carries the shutter

bevel wheel, this sector carries pinion P geared between a pair of bevel wheels; in this case the outer wheel does not work the shutter as usually, but transfers through pinion P to the inner bevel wheel, into which the pinion of the shutter is geared. It will be seen that any movement given to the dog is also given to the shutter, as both shutter and dog must work in unison.

By using this adjustment no movement of the lense or gate is required, as the film can be brought into position with the gate aperture by raising or lowering handle H. No extra rollers are needed for films to run over. Top and bottom sprocket wheel spindles are both threaded so that the machine can be driven with either sprocket. This improvement can be fitted to existing Bioscopes.

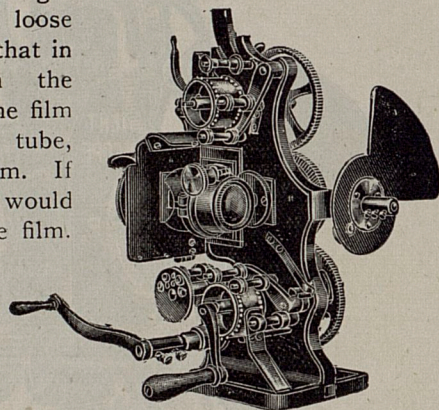
Description of Mechanism.

The entire frames and bearings are made of the finest grain iron castings, finished in green enamel and gold pencil lines all round. The spindles are turned out of the best refined steel, accurately ground in to ensure the most perfect fitting. The gear wheels and sprockets, film holders and re-winding gear are of highly-finished hard brass and gun metal, and all accurately cut and adjusted. The shutter is fitted with the translucent violet shutter blade, which reduces all flicker, and is adjustable to the use of any focus objective. The top arm or film spool support is fitted with disc and tube for use with single films. The advantage of the loose tube fitted on pin of top arm is that in running single films through the machine the centre portion of the film in unwinding grips the loose tube, which then revolves with the film. If this were a fixed pin, the result would be the constant breaking of the film.

The automatic re-winding take-up gear is of an improved design, readily fixed and adjusted to the Bioscope frame by a thumb screw, and made to take spools up to 16 inches diameter, and winds regularly the films at the end of the strip, as it does at the beginning. The films do not bind or cause undue tension as the diameter on the spool increases, which is usual with the general attachments used.

The Gate is so constructed that, by reason of the film travelling between steel runners, the face of the film on either side does not come in contact with any other part of the gate.

In order to reduce wear and tear of perforations, the necessary gate pressure is spread over a large area by means of three adjustable pressure bars on each side of the film. Greater retardation is obtained by employing as many pressure bars as possible, in preference to the usual method of one pressure bar only on each side, which, to produce equal arresting power, would require more pressure than does the multiple base method, operating over a similar length of film.



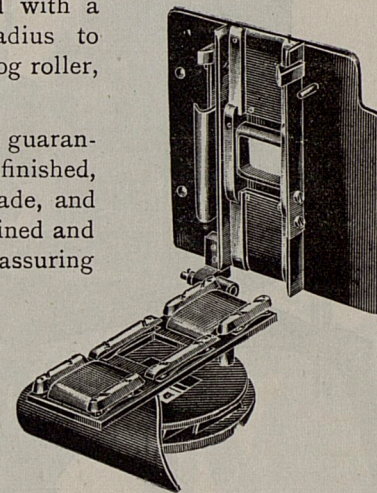
The steel pressure bars are hardened and burnished. Running vertically between the pressure bars are two brass plates, termed "baffle plates," whose function is as much as possible to reduce the air space around the films.

This renders the firing of the film in the gate an absolute impossibility. If the film in the exposure hole should fire from any cause whatever, one picture only can be burned, the perforations themselves remaining intact, so that even re-threading the machine is unnecessary.

To each machine is also fitted the Patent Automatic Light Cut-Off.

The dog or beater is fitted with a secondary dog roller, set at a radius to minimise the blow of the main dog roller, which also lessens the noise.

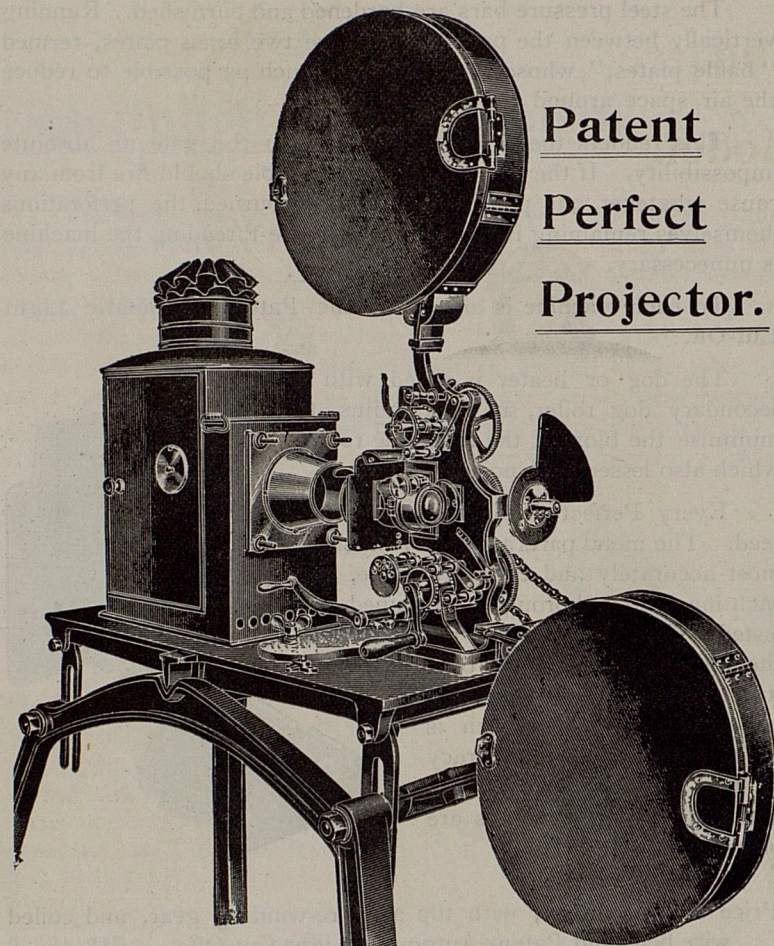
Every Perfect Projector is guaranteed. The metal parts are highly-finished, most accurately and carefully made, and each machine is thoroughly examined and tested before despatching, thus assuring them giving better results than it is possible to obtain with any other machine, which is entirely due to the accuracy of the mechanism and the crucial tests the machines are placed under.



Price of Mechanism, with top arm, re-winding gear, and coiled wire belt, and Patent Automatic Light Cut-Off £18 18 0

Without Patent Automatic Light Cut-Off ... 16 16 0

If Chain Drive in lieu of wire belt and pulleys extra 0 15 0



Patent
Perfect
Projector.

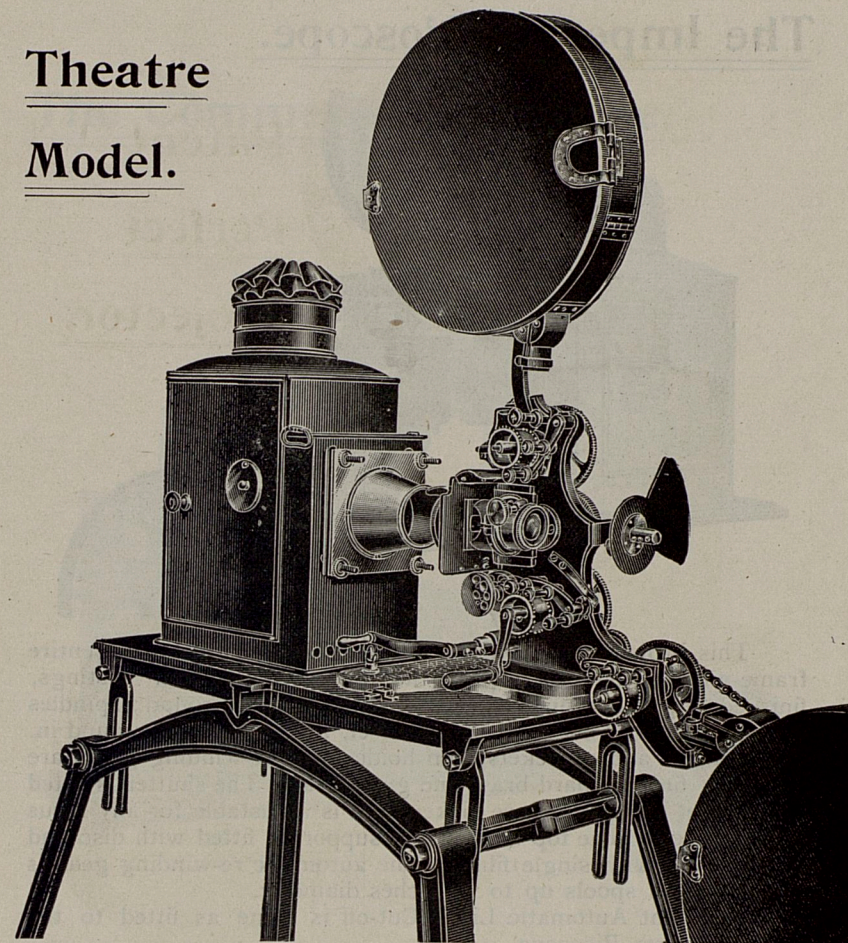
Fitted complete as illustration, and consisting of Patent Perfect Mechanism, Automatic Light Cut-off; Lantern Lense, with double rack and pinion and flap shutter; jacket for Cinematograph Lense; 1 Cinematograph Lense mounted in tube to slide into jacket; top arm for spools; re-winding gear with wire band and mounted on brass swivel plate and oak baseboard.

Improved Russian iron Lantern body with crinkle top, and brass cone front stage; 4-inch double convex and meniscus condenser, 3. 12-inch diameter spools for films; all metal double slide carrier.

The whole as described above, price £26 17s.

If fitted with 2 14-inch diameter spool boxes,	Extra	£3 5 0
If fitted with Chain Drive take-up in lieu of wire band and pulleys	...	0 15 0
If fitted to Iron Stand	...	3 15 0

Theatre
Model.



This machine is similar to previous descriptions, but has an extra sprocket or pin wheel, which greatly relieves the strain on the film.

Price of Mechanism with top arm, re-winding gear with coiled wire belt, and automatic light cut-off £22 1 0

Fitted complete as illustration, and consisting of Patent Perfect Mechanism, Automatic Light Cut-off, Lantern Lense with double rack and pinion, and flap shutter; jacket for Cinematograph Lense; one Cinematograph Lense mounted in tube to slide into jacket; top arm for spools; re-winding gear, with wire band, and mounted on brass swivel plate and oak baseboard.

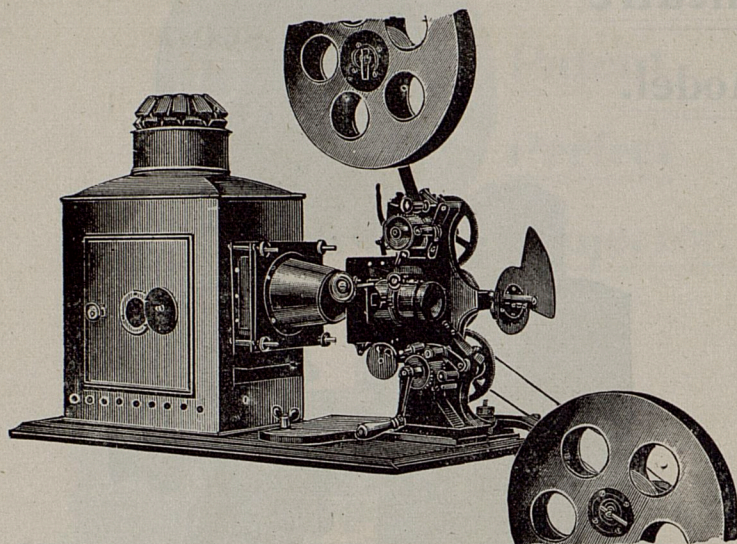
Improved Russian Iron Lantern Body, with crinkle top and brass cone front stage; 4-inch double convex and meniscus condenser; 3 12-inch diameter spools for films; all-metal double-slide carrier.

The whole, as described above, price £30 0 0

EXTRA.

If fitted with 2 14-inch Diameter Spool Boxes	...	£3 5 0
If fitted with Chain-drive take-up in place of wire band and pulleys	...	0 15 0
If fitted to Iron Stand	...	3 15 0

The Imperial Bioscope.



This projector is of the ordinary Bioscope type. The entire frame and bearings are made of the finest grain iron castings, finished in green enamel and gold pencil lines all round; spindles are turned out of the best refined steel, and accurately ground in. Gear wheels and sprockets, film holders and re-winding gears are of highly finished hard brass and gun metal. The shutter is fitted with violet blade to reduce flicker, and is adjustable for any focus lense desired. The top arm or film support is fitted with disc and tube for use with single films. The automatic re-winding gear is made to take spools up to 16 inches diameter.

The Patent Automatic Light Cut-off is same as fitted to the Patent Perfect Bioscope.

Every Bioscope is guaranteed, and each one is thoroughly examined and tested before being despatched.

Price of complete machine as above illustrated, consisting of mechanism, lantern lense, jacket for cinematograph lense, one cinematograph lense in tube, top arm for spools, re-winding gear and spring band, 3 12-inch spools, Russian iron body with crinkle top, brass cone front; the whole, mounted on brass swivel plate and oak baseboard, price **£21 12s.**

With Patent Automatic Light Cut-off, **£23 14s.**

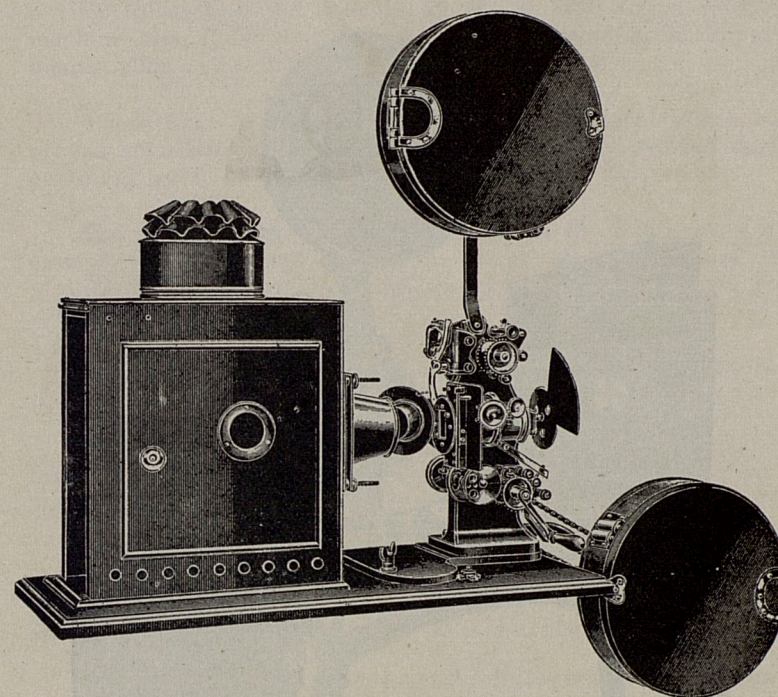
Price of Imperial Bioscope mechanism, with top arm, re-winding gear, and coiled wire belt, without Light Cut-off, **£14 14s.**

Price with Patent Automatic Light Cut-off, **£16 16s.**

If fitted with 2 14-inch diameter spool boxes **£3 5 0** extra

If fitted with Chain Drive take-up in lieu
of wire band and pulleys **£0 15 0** „
If fitted to Iron Stand **£3 15 0** „

The Commercial Bioscope.

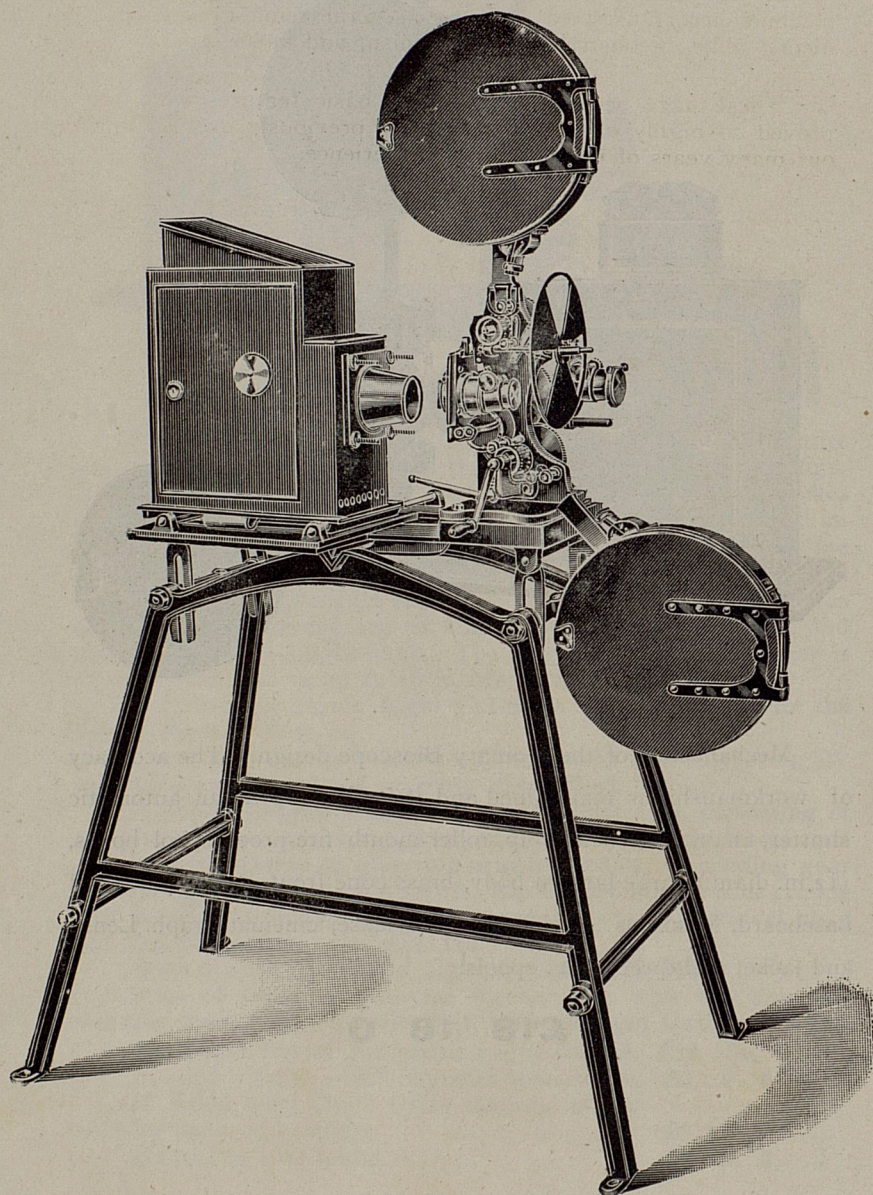


Mechanism is of the ordinary Bioscope design. The accuracy of workmanship is maintained and it is fitted with an automatic shutter, chain driven take-up, roller-mouth fire-proof spool boxes, (12 in. diam.), large lantern body, brass cone front, swivel plate and baseboard, Meniscus condenser, Title lense, cinematograph Lense and jacket and three 11-in. spools.

£18 18 0

BEARD'S MALTESE CROSS MODEL.

ALL STEEL.



Beard's Latest Projector.

As the result of exhaustive practical experiments, made with a view to meeting the demand for the Maltese Cross type, the machine here illustrated embodies several remarkable improvements alike in construction, mechanism and finish.

These have been added to those basic features which have proved so highly efficient in the types previously evolved during our many years of manufacturing experience.

The frames and bearings are made of the finest grain iron castings; the bushings throughout are of phosphor-bronze; the Maltese Cross finger discs and sprockets are of hardened steel with fine finish.

The gears are cut spirally from solid steel; the gate, film-runners and pressure bars are of silver steel.

The Maltese Cross Movement is carried in an independent fitting; the oil bath is self-contained; the re-winding gear is bevel driven.

A feature to which special attention is called is the extended bearing secured by the bottom shaft and finger disc shaft, being bracketed outside. For the fast-running shafts the finest silver steel is employed. All nuts and bolts are also of fine steel.

The masking device is conveniently operated by a lever or handle at base.

A notable improvement in design is the bevel-driven automatic re-winding take-up gear, which is readily fixed to the projector; it is automatic in adjustment and is easily detached by the simple release of a clutch. The films wind regularly right up to the end, and do not bind or increase tension, or render the film liable to break, as is often the case with other attachments.

The special construction of the gate reduces the wear and tear of the film face and the perforations to a minimum.

The possibility of the firing of the film is reduced to an absolute minimum.

The Automatic Light cut-off is of the centrifugal type constructed within the Balance Wheel, and is of neat and compact design.

Beard's Latest Projector—*continued.*

The Fireproof Film Box has a film trap allowing plenty of space without rubbing the surface of the film or undue friction, and making an absolute extinguisher, with an easy method of threading spools while in position. The film is placed in the bottom half of extinguisher, the top half (which is attached to a section of the rim) is closed upon it, the door is then closed, making it perfectly fireproof. The convenience of this will be seen in the case of the film breaking in use; the door is opened and the section raised. The film can be readily handled without taking off the spool.

Every projector is, of course, fully guaranteed, and is thoroughly examined and tested before despatching. The finish is silver grey giving a most refined appearance.

The body is made of best quality Russian Iron, and of extra large size to take any Arc lamp or other illuminant.

Ample space is allowed for adjusting lamp, jet, etc., without removing them from the body.

It is fitted with side door the entire height of the body, having special fibre handle and fastening. Brass sight hole fitted with a special glass, with which it is always possible to see the Arc. A sliding rod attached to the back of body for curtain.

Entire brass fronts with conical tube, carrier sliding stage. Condenser 4 in. diameter, double Convex and Meniscus combination, fitted in a loose metal frame, which drops into position from outside of the body and is well ventilated. Grooved runner with clamping screws for Arc lamps or Jet trays.

The Stand is constructed entirely of iron (H section), and is absolutely rigid. Fitted with a tilting top which is accurately machined, upon which is mounted lantern or title lens and mechanism side by side.

The lamphouse is between runners on a carriage, so that the lamp-house can slide backwards and forwards.

The carriage slides on two bars, to register either mechanism or lantern lens.

Projector complete with as above described with Spool Boxes, 3 12-in. Spools, Beard's "Express" Cine Lens, Title Lens, Lamp-house, Slide Carrier, and Stand, £35.

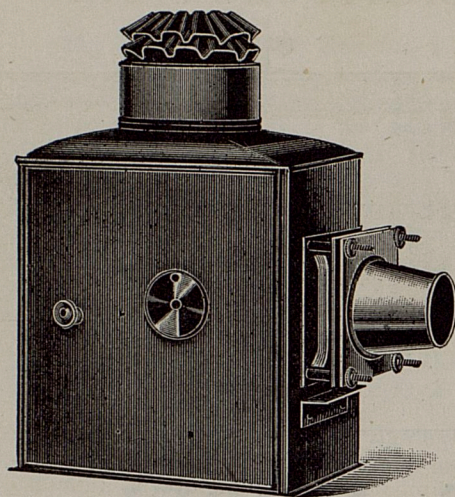
HOME MODEL

(Maltese Cross)

In Construction.

Particulars on application.

RUSSIAN IRON BIOSCOPE LANTERN.



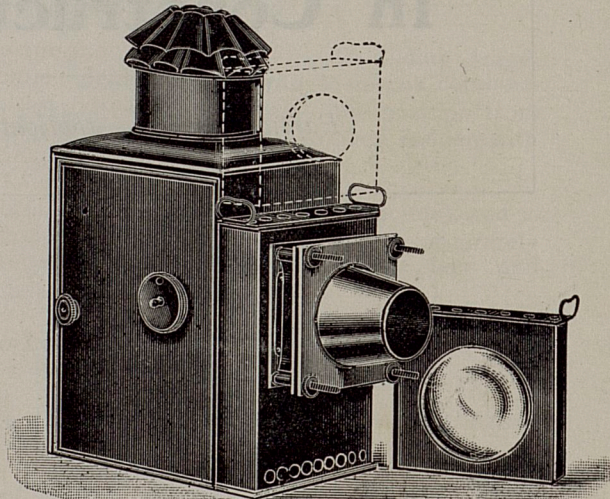
The Body is made of Best quality Russian iron and of extra large size to take any Arc lamp or other illuminant, having ample space to adjust lamp, jet, &c., without removing them from the body, fitted with side door, having special fibre handle and fastening. Brass flashing shutter sight holes both sides of body, ornamental rose top, sliding rod fitted in top of body for curtain.

Entire brass fronts with conical tube, carrier sliding stage, and alum trough stage. Condenser 4 inches diameter, Double Convex and Meniscus combination. Grooved runner with clamping screws for arc lamps, or jet trays and well ventilated.

Price with Condenser, £2 10 0

IMPROVED RUSSIAN IRON BIOSCOPE LANTERN BODY.

The Improvements in this body consist of the Condenser being held in a loose metal Frame, which drops into position from outside of body, as shown in illustration; and the door is made the entire height of body, giving greater facility for adjusting Arc Lamps without removing from the body.

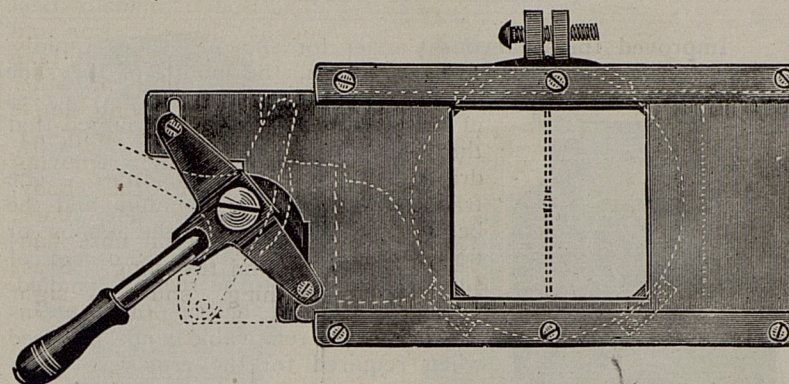


Entire Brass Fronts with conical tube, carrier sliding stage, grooved runners with clamping screws. Four inch Meniscus and Double Convex Condenser.

Price with Condenser and Brass Front, £2 15 0

Extra Condenser stages 0 5 0

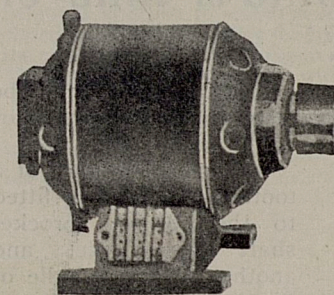
CURTAIN LIGHT CUT-OFF.



This Curtain Light Cut-Off is made entirely of brass, and is easily fitted to any standard lantern cone by the clamping ring and adjusting screws, being equal from both sides. In use the effect produced is the gradual illumination of the picture or announcement slide with a gradual curtain cut-off.

Price (with clamping ring for cone) £1 1 0

MOTORS AND STARTING AND REGULATING SWITCHES.

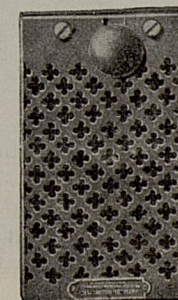


The frame of the machine is made of high permeability cast iron. It is fitted with ball bearings, and ormer wound and taped field and armature coils; the commutator is built up of hard drawn copper segments insulated throughout with mica and assembled under hydraulic pressure; the brushes are carbon.

	£	s.	d.
No. 1, 110 volts ...	3	0	0
No. 2, 250 ,, ...	3	10	0

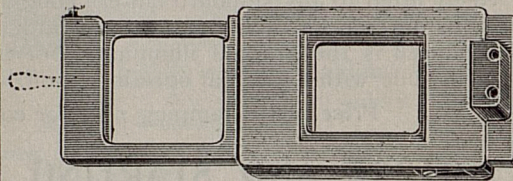
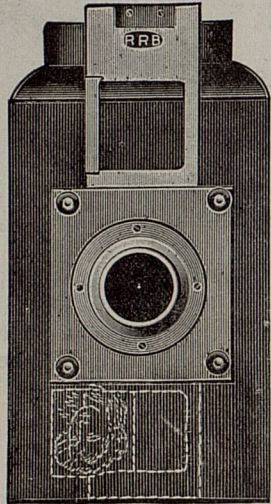
Starting and Regulating Switches for above Motors provided with 16 steps.

	£	s.	d.
No. 1 ...	1	4	0
No. 2 ...	1	7	0



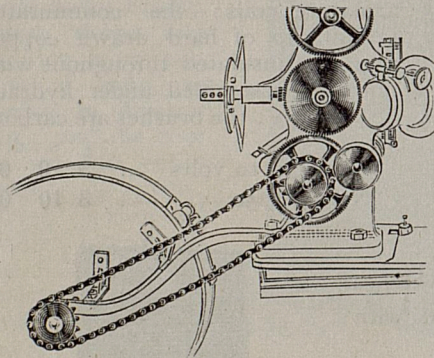
BOTH WAY CARRIER.

Improved Instantaneous Carrier for showing slides rapidly. Either to slide across or up and down, the mouth of the slide receptacle in the sliding frame is cut away to allow of easy access of the grooves, and is so arranged that the slides can be placed or withdrawn in the least possible time. The frames are made of aluminium and the bearing parts of brass, the knobs or finger blocks are of red fibre and of such proportions to be readily handled. Owing to limited heights of Lanterns the handle is removable and replaced when required for the crossway position.



Price, £1 1 0

CHAIN DRIVE RE-WINDING or TAKE-UP GEAR.



The Chain Drive can be fitted to any existing Bioscope.

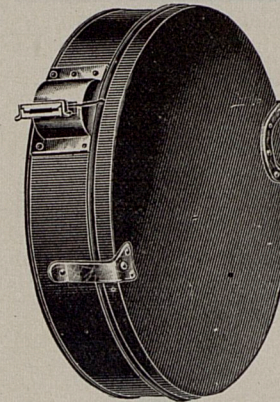
This gear consists of a toothed wheel being fitted to the bottom sprocket shaft or spindle, and another to the spindle of the re-winding arm.

The bottom chain wheel is provided with a friction drive, and the tension is regulated by a milled headed nut, giving an exceedingly fine regularity of drive without any strain whatever on the film.

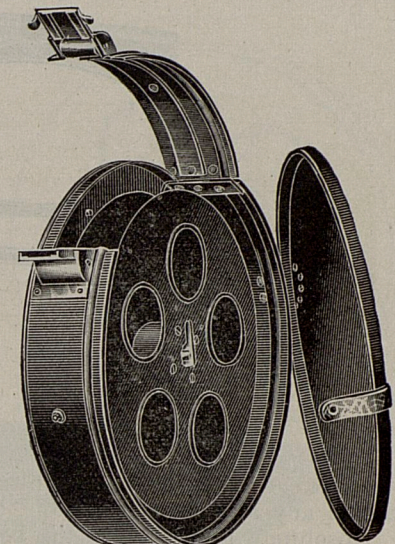
Price, £1 1 0

When ordering, it is necessary to give the diameter of spindles, and distance between the two centres.

Fireproof Film Boxes.



Box Closed.



OPEN.

The improvement in this Fireproof Film Box consists of a film trap allowing plenty of space without rubbing the surface of the film or undue friction, and making an absolute fire extinguisher. Easy method of placing spools in position. The film is placed into the bottom half of extinguisher, the top half (which is attached to a section of the rim) is closed upon it, the door is then closed, making it perfectly fireproof. The convenience of this will be seen in the case of the film breaking in use, the door is opened and the section raised. The film can be readily got at without taking off the spool.

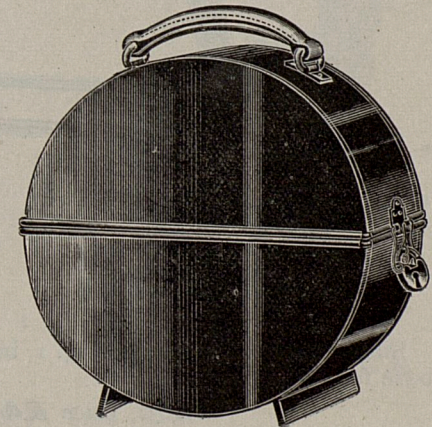
Price, in japanned steel with brass fittings :

12 inch diameter	..	..	..	..	..	..	£1 10 0 each.
14 " "	..	..	..	..	..	..	1 12 6 "

SPOOL CASES.

Strong Japanned with wire edges, leather carrying handle, patent padlock. To take two 12 inch spools.

Price 8/6.



Cinematograph Stands.

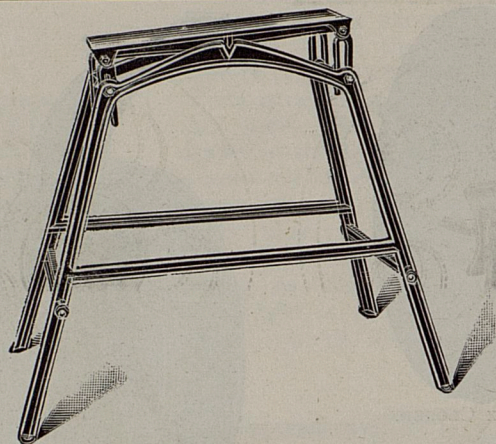


Fig. 1.

Made entirely of Iron, with tilting top, enabling the operator to obtain any angle required.
Absolutely rigid, and of the best finish and workmanship.

Fig. 1, price **£3 15 0.**

The Ideal Stand for Picture Theatres.

CINEMATOGRAPH STAND.

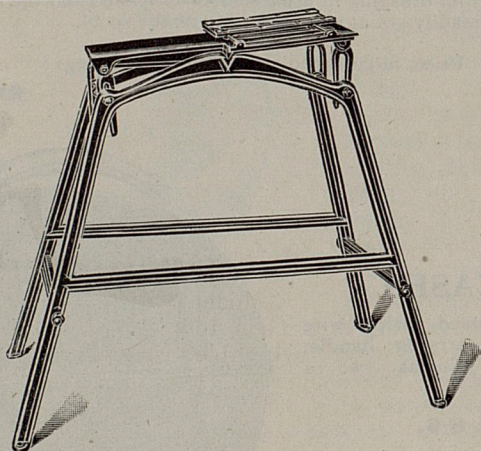
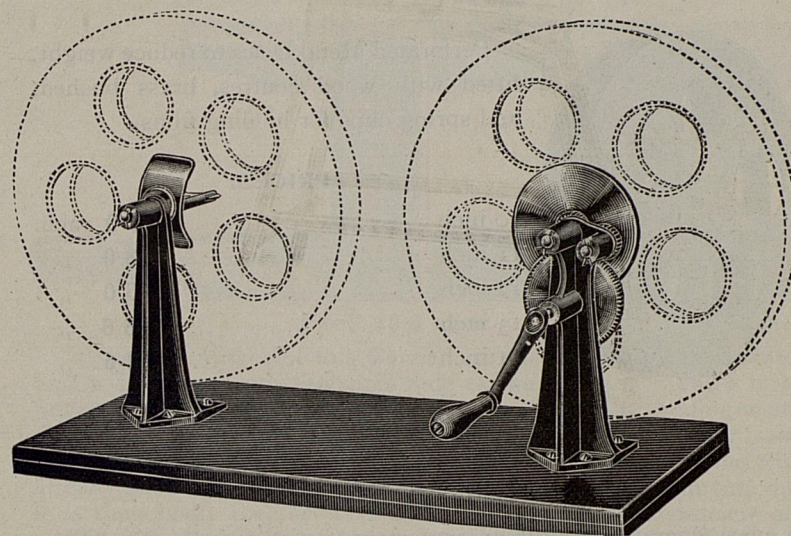


Fig. 2.

Similar in construction to Fig. 1, but fitted with Iron slide over base for Lantern Body.

Fig. 2, price **£4 10 0.**

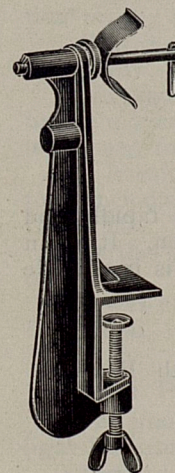
Spool Rewinders.



Model No. 1.

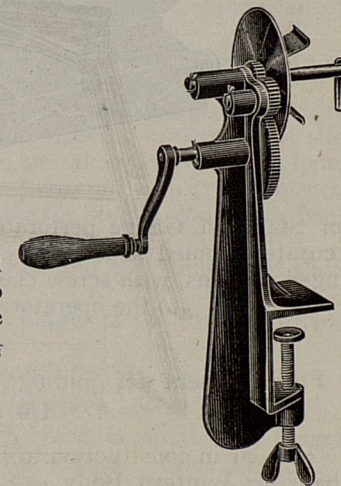
Mounted on polished Mahogany base board, with two substantial iron uprights, steel spindles, solid cut gear wheels, with intermediate gear to wind in same direction as film is travelling.

Price, **£1 15 0**



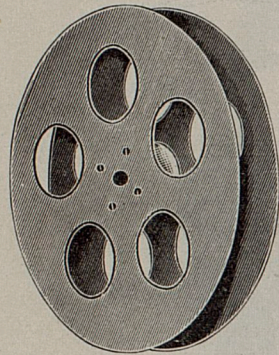
Model No. 2.

Similar to Model No. 1, but made to clamp to any table or bench up to 2½ in. thick.



Price, **£1 15 0**

Improved Spools for Films.



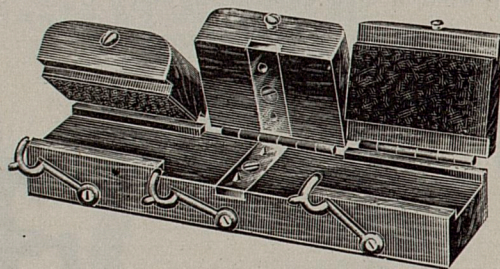
Perforated Metal Discs to reduce weight, fitted with wood centres, brass bushed, and spring clips for holding films.

PRICES.

10 inch	...	...	...	3/0 each.
11 inch	...	...	...	3/0 "
12 inch	...	...	...	3/0 "
13 inch	...	...	...	3/6 "
14 inch	...	...	...	3/6 "

FILM MENDERS.

In every operator's outfit an important item is a really Good Film Mender. It is very important that when a film is mended it is done properly, otherwise the picture jumps when the join is passing through the machine.



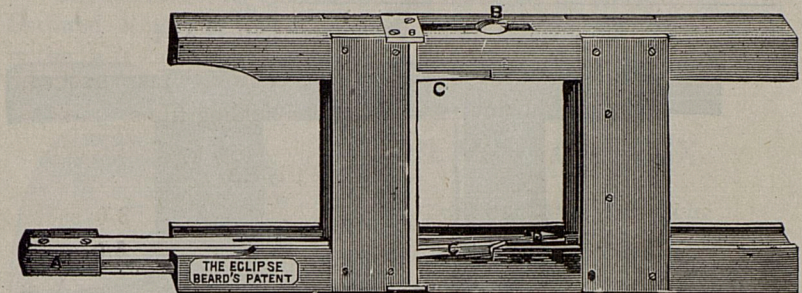
For Standard Gauge perforated films, which can be rapidly and accurately joined should they become torn or broken. It is in hinged sections, with screw clamp and solid base, and is invaluable to the operator. Price, 5/0 each.

Film Cement for joining Films. Complete with Brush, 1/0 per bottle.

Film Cement for Non-Flam Films. Complete with Brush, 1/0 per bottle.

BEARD'S ECLIPSE SINGLE LANTERN SLIDE CARRIER.

The best method of producing Dissolving View effects with a Single Lantern. For Slides $3\frac{1}{4} \times 3\frac{1}{4}$.



Price 10/6 each.

The advantages of this Carrier are that the slides are inserted and withdrawn from the same side of the Lantern. There is no finger marking, as the slide need only be held with the finger and thumb by the corner. The slide can be easily placed in the frame and pushed into position by the plunger or runner, and the slide already shown is removed by the withdrawing of the plunger, and it is then ready for the next slide. The action of passing one slide before the one being shown is very pleasing in its effect, and is the nearest approach to dissolving yet obtained with a single lantern, and the ease and comfort it gives to the operator has earned for it a great reputation.

Also for preventing the usual white disc when the slides are withdrawn from the Lantern (unless desired).

Also a better and more efficient way of passing slides ($3\frac{1}{4} \times 3\frac{1}{4}$) in and out of the lantern.

This Carrier will suit all existing Lanterns, and without alteration to any part.

Centring in any Lantern as effect or mechanical slides in the usual way.

No reaching across or lifting out of groove the usual slide, for by one movement of the runner (simply drawing out) the used slide is brought to the same side ready to be taken away by the hand.

It is suitable for any Lantern or Lanterns with condensers up to $4\frac{1}{2}$ inch diameter, and is also suitable for single, double, or triple Lanterns.

By this Carrier one operator can exhibit any number of slides required.

It was highly commended by the judges of the Royal Cornwall Exhibition.

Price 10/6 each.

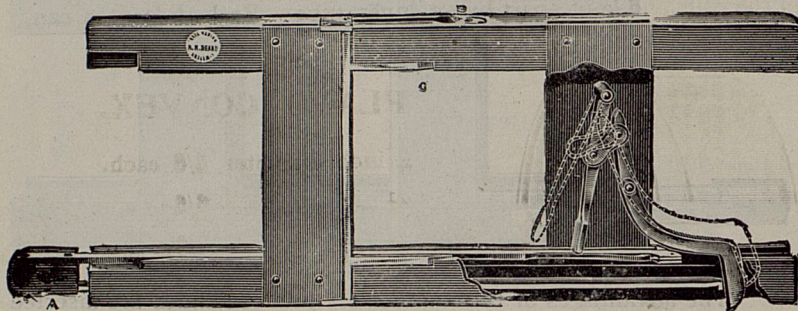
Metal Faced Eclipse Single Lantern Slide Carrier.

The wood frame being faced with brass, is suitable for electric light lanterns or those having narrow stages. Price 12s. 6d.

Entire metal frame in aluminium and riveted together, working parts in brass. Price £1 2 6

Beard's Universal Self-Centring Eclipse Single Lantern Slide Carrier.

For any size Slides from $4\frac{1}{4} \times 3\frac{1}{4}$ to $3\frac{1}{4} \times 3\frac{1}{4}$.

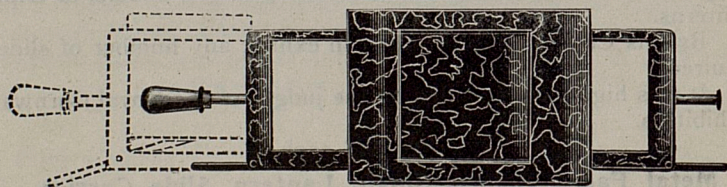


The Best Method of producing Dissolving View Effects with a Single Lantern.
Price 12/6 each.

The advantages of this Carrier are that the slides are inserted and withdrawn from the same side of the Lantern. There is no finger marking, as the slide need only be held with the finger and thumb by the corner. The slide can be easily placed in the frame and pushed into position by the plunger or runner, and the slide already shown is removed by the withdrawing of the plunger, and it is then ready for the next slide. The action of passing one slide before the one being shown is very pleasing in its effect, and is the nearest approach to dissolving yet obtained with a single lantern, and the ease and comfort it gives to the operator has earned for it a great reputation. It prevents the usual white disc when the slides are withdrawn from the Lantern (unless desired). Also a better and more efficient way of passing slides (any size from $4 \times 3\frac{1}{4}$ to $3\frac{1}{4} \times 3\frac{1}{4}$) in and out of the Lantern. This Carrier will suit all existing lanterns. No reaching across or lifting out of groove the used slide, for by one movement of the runner (simply drawing out) the used slide is brought to the same side ready to be taken away. It is suitable for any lantern or lanterns with condensers up to $4\frac{1}{4}$ inch diameter, and is also suitable for single, double or triple lanterns. By this Carrier one operator can exhibit any number of slides required.

For slides $4\frac{1}{4}$ by $3\frac{1}{4}$ to $3\frac{1}{4}$ by $3\frac{1}{4}$	...	...	...	Price	0	12	6	each
Metal faced $4\frac{1}{4}$ by $3\frac{1}{4}$ to $3\frac{1}{4}$ by $3\frac{1}{4}$	...	...	...	"	0	15	0	"
Entire metal frame (Aluminium)	...	...	...	"	1	5	0	"

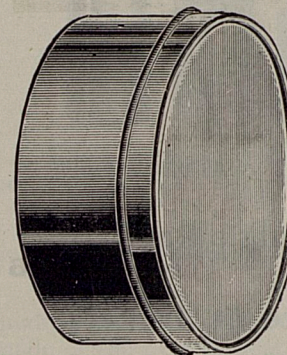
All Metal Double Slide Carrier.



Made in solid brass, and will stand any heat, best Carrier for use with Electric Light or High Pressure Jets; and is so constructed that the centre separating the slides is made to act as a light cut-off when used in the Cinematograph. Fitted with Levers for raising slides and insulated fibre handles to prevent the turning of the hands when in use. Price 16/-

CONDENSING LENSES.

All the following Condensers are mounted in Brass Cells with Screwed Rings and well finished. The Lenses are placed loose in the cells and kept apart by an inner tube. Broken Lenses can, therefore, be replaced by anyone.



PLANO CONVEX.

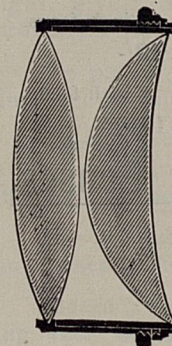
4 inch diameter, 5/6 each.

$4\frac{1}{4}$ " " 6/6 "

$4\frac{1}{2}$ " " 7/6 "

Single Lenses for Replacing
when Broken.

Diameter	4 in.	$4\frac{1}{4}$ in.	$4\frac{1}{2}$ in.
	2/3	2/9	3/3



DOUBLE CONVEX & MENISCUS

As supplied with Patent and other Bioscopes.

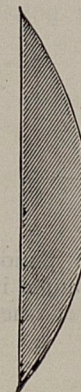
4 inch diameter, 6/6 each.

$4\frac{1}{4}$ " " 9/- "

$4\frac{1}{2}$ " " 11/6 "

Single Lenses for Replacing when Broken.

	DOUBLE CONVEX.			MENISCUS.		
Diameter	4 in.	$4\frac{1}{4}$ in.	$4\frac{1}{2}$ in.	4 in.	$4\frac{1}{4}$ in.	$4\frac{1}{2}$ in.
	3/-	3/9	4/6	3/3	4/3	5/6



PLANO CONVEX LENSES.

Best Quality, Optically Ground.

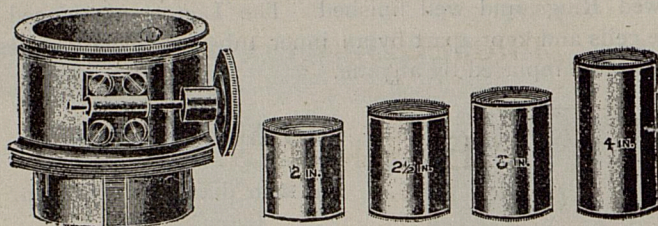
For Theatrical Lime-light Boxes.

DIAMETER.	FOCUS.	EACH.	DIAMETER.	FOCUS.	EACH.
6 inch	6 inch	16/6	7 inch	9 inch	24/-
6 "	7 "	15/6	7 "	10 "	22/-
6 "	8 "	12/-	8 "	8 "	43/-
7 "	7 "	28/-	8 "	9 "	43/-
7 "	8 "	28/-	8 "	10 "	37/6

Cheap Quality Moulded, 6 inch diameter, 4/-

Cinematograph Lenses.

1 $\frac{1}{8}$ in. Diameter.



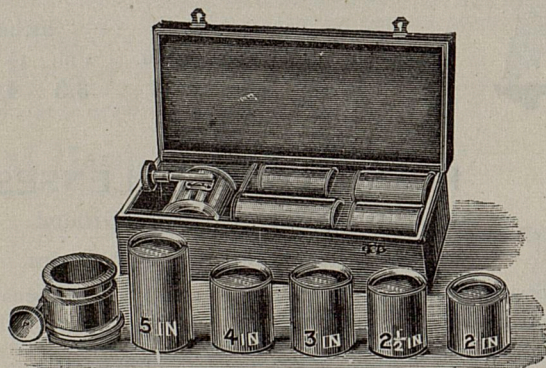
The lenses are of the finest quality double astigmat and give excellent results.

Brass Mount or Jacket with Single Rack and Pinion Price, each **8/6**

Lenses mounted in tubes to fit Jackets.

1 $\frac{1}{8}$	1 $\frac{3}{8}$	2	2 $\frac{1}{4}$	2 $\frac{1}{2}$	2 $\frac{3}{4}$	3 inch focus.
23/-	23/-	14/-	14/-	14/-	14/-	13/-
3 $\frac{1}{4}$	3 $\frac{1}{2}$	3 $\frac{3}{4}$	4	4 $\frac{1}{4}$	4 $\frac{1}{2}$	5 inch focus.
13/-	13/-	13/-	13/-	13/-	13/-	13/-
5 $\frac{1}{4}$	5 $\frac{1}{2}$	5 $\frac{3}{4}$	6	6 $\frac{1}{4}$	6 $\frac{1}{2}$	7 inch focus.
13/-	13/-	13/-	13/-	13/-	13/-	13/-

Complete Set of Cinematograph Lenses.



Consisting of interchangeable mounts with rack and pinion adjustment, and lenses of 2, 2 $\frac{1}{2}$, 3, 4 and 5 inch focus, mounted in brass tubes and fitted in a leather covered, silk and velvet lined case.

Price **£4 15 0**

BEARD'S NEW SERIES CINEMATOGRAPH PROJECTION LENSES.

"EXPRESS."

However good your machine may be, you cannot project a perfect picture unless you use a really good quality Lens.

The importance of using a really first quality Lens cannot be over-estimated, because brilliant sharp pictures are essential.

Beard's new Cine. Lens, "EXPRESS," is a series of first quality objectives, constructed on the most approved formula and made of the best optical material.

They are so constructed as to pass the maximum amount of light, giving a picture twice as brilliant as that given by the ordinary type of Lenses.

To please your patrons you must project a perfectly brilliant and well-illuminated picture.

Beard's special Lens, "EXPRESS," will accomplish this, and at the same time, by using this new Lens, you will economise in current consumption.

Try a Beard's "EXPRESS" Lens, and you will never want any other make.

Beard's special "EXPRESS" Lenses are made in the following foci mounted in brass cylinder tubes as illustration, and being standard size (1 $\frac{1}{8}$ in. diameter) are easily adapted to all existing apparatus:—



2 in., 2 $\frac{1}{4}$ in., 2 $\frac{1}{2}$ in., 2 $\frac{3}{4}$ in., 3 in., 3 $\frac{1}{4}$ in., 3 $\frac{1}{2}$ in., 3 $\frac{3}{4}$ in., 4 in., 4 $\frac{1}{4}$ in., 4 $\frac{1}{2}$ in., 4 $\frac{3}{4}$ in., 5 in., 5 $\frac{1}{4}$ in., 5 $\frac{1}{2}$ in., 5 $\frac{3}{4}$ in., 6 in., 6 $\frac{1}{2}$ in., 7 in., equivalent focus.

Price for any Focus, **£1 5 0**

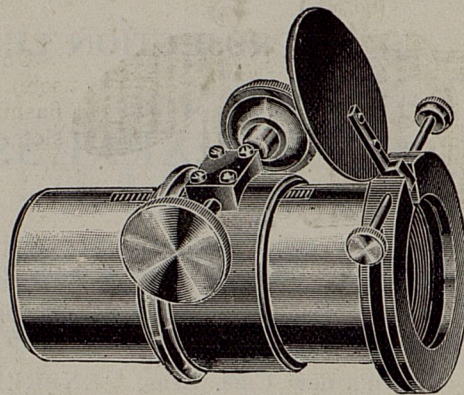
Lantern Lenses.

DOUBLE COMBINATION ACHROMATIC
2-inch diameter. Solid brass mount, double rack and pinion, hinged flashing shutter with tinting slot (any focus desired).

From 6 to 18 inch.

Price **15/-** each.

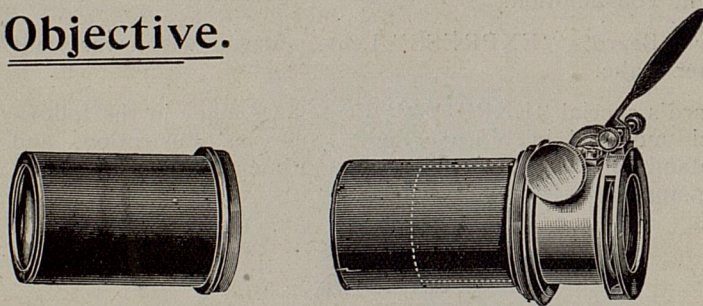
For over 18in. Focus **17/6**



Lengthening Tubes for Lantern Lens.

1	1½	2	3	4 inch.
3/-	3/-	3/-	3/6	4/- each.

The "Multifocal" Lantern Objective.



The Multifocal Objective is 6 inch focus, but with its auxiliary lense of 8 inches can be used for any focus up to 20 inches, providing the Lantern is fitted with extending front draw tubes. The definition is perfectly crisp over the whole field of view.

By this means the operator is provided with all that is required for exhibition in small rooms or large halls, and, as will be seen by the illustrations, the Multifocal, with its attachment, occupies a very small space in the lanternist's outfits.

Price complete **£3 15 0.**

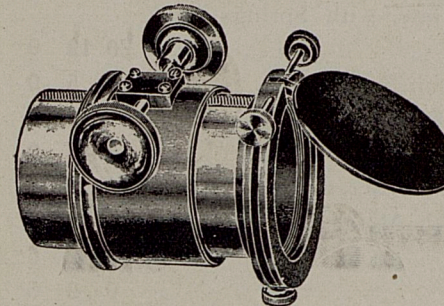
Lantern Lense Jacket.

(For interchangeable tube lenses).

2 in. diam.

Double rack and pinion, solid brass mount, hinged flashing shutter and tinter slots.

Price **12/-** each.

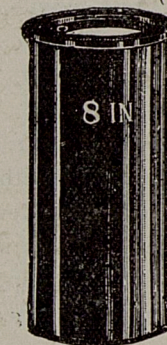


Cylinder Lenses,

To fit above jacket. Double combination achromatic 2-inch diameter, 6, 8, 10, 12, 14, 16 inch equivalent focus.

Price **7/-** each.

18 to 30 inch focus, **10/6** ..



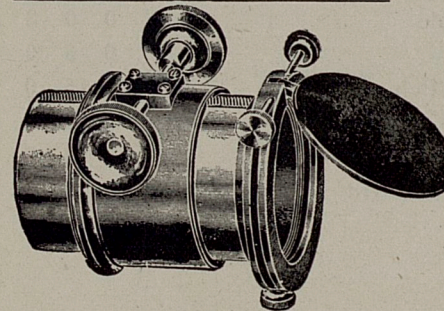
Lantern Lense Jacket.

(For interchangeable tube lenses).

2½ inch diam.

Jacket. Very massive, solid brass, with double pinion rack adjustment, hinged flashing shutter and tinter slot.

Price **20/-** each.



Cylinders

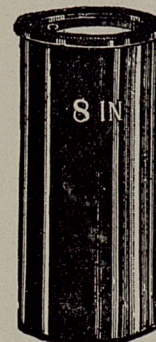
Fitted with double achromatic combinations 2½ inch diameter.

Equivalent focus of lenses, 6, 8, 10, 12, 14 or 16 inches, **16/-** each.

18 in. to 30 in., **20/-** each.

Lengthening Tubes for Lantern Lense Jackets

1	1½	2	3	4 inch.
3/-	3/6	4/-	4/6	5/6 each.



General Sundries and Parts.

Set of 6 Pressure Bars for Gate, with Springs and Screws	£0 12 0
Set of 6 Bow Steel Springs, with Screws ... set	0 5 0
Single Bow Steel Springs, with Screws ... each	0 1 0
Refitting Steel Guides in Film Trap	0 18 0
Support for Top Reel with Thumb Screw	0 10 0
Vulcanite Eccentric Roller, with Metal Bearings and Steel Spindle	0 2 6
Gun Metal ditto	0 2 6
Vulcanite Rollers (grooved or flanged)	0 1 0
Brass ditto	0 1 3
Bevel Steel Gear Wheel for Shutter Shaft	0 4 0
Beater Shaft with Steer Gear Wheel	0 7 6
Bioscope and Rewinder Handles	0 2 6
Screws, various sizes each	0 0 3
Extra Film Trap, complete	2 10 0
Fireproof Pattern, as fitted to the Patent Perfect Bioscope	3 0 0
Extra Shutter, Opaque Blade, with Fittings	0 5 0
Translucent Violet Shutter Blade	0 0 3
O G Flange to fit Lantern Lense... ..	0 6 0
Film Take-up with Steel Coil Belt	0 15 0
Take-up Springs with Fittings	0 2 6
Patent Automatic Light Cut-off	2 2 0
Brass Swivel Plate and Oak Baseboard	2 0 0



Separate Sections of Catalogue.



SECTION.

A Lanterns, Carriers, Lenses, Elevators,
Sheets, etc.

B Bioscopes, Maltese Cross Projectors,
Home Cinematographs, Spool Boxes,
Iron Stands, Bioscope Lenses, Spools.

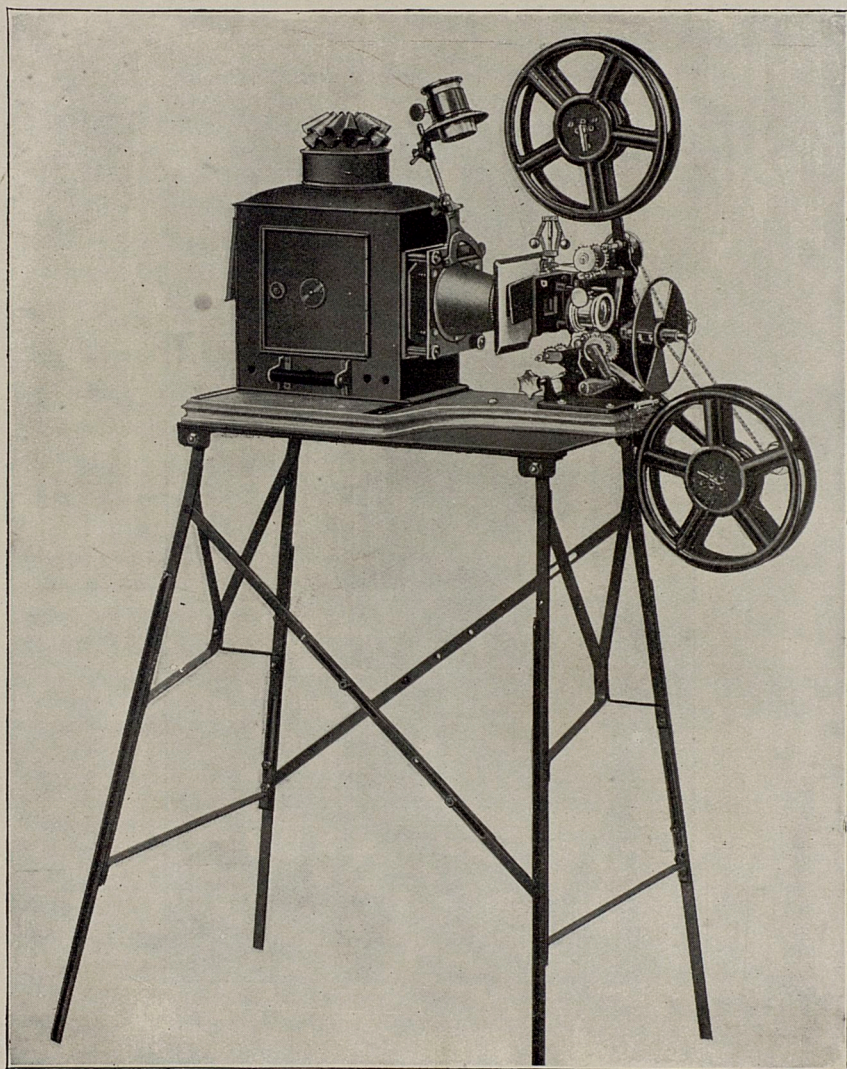
C Arc Lamps, Resistances, Carbons, Amp-
meters, Voltmeters, Switchboards.

D Compressed Gas Regulators, Gauges,
Biojector Jets, Collimator Jets, Mixed
and Blow-Through Jets, Injector Jets,
Limes, Fine Adjustment Valves.



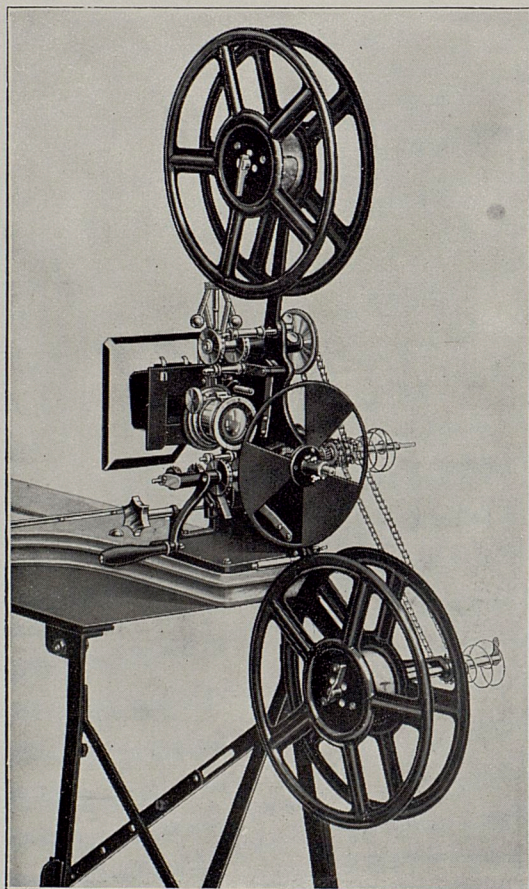
FREE ON APPLICATION.

THE **RRB** MALTESE CROSS
HOME MODEL
CINEMATOGGRAPH.



R. R. BEARD, 10 Trafalgar Road, Old Kent Road,
LONDON, S.E.

THE **RRB** MALTESE CROSS
HOME MODEL
CINEMATOGRAPH.



R. R. BEARD, 10 Trafalgar Road, Old Kent Road,
LONDON, S.E.

THE **RRB** HOME MODEL
CINEMATOGRAPH.

A Cinematograph with a Fixed Optical Centre.
An Optical Lantern,
A Spool Re-winder,
all combined in the one instrument.

FOR EDUCATIONAL PURPOSES it is unsurpassed, it takes the Standard Film, and will project up to any size according to the illuminant used. Its silent running enables the Lecturer to describe his subjects while they are being shown.

FOR THE TRAVELLER AND MISSIONARY its light weight but yet substantial construction, is all that can be desired, and as it can be used as an Optical Lantern and a Spool Re-winder, it answers a threefold purpose, which is a great convenience.

FOR THE HOME it is perfect in every way, it is simple in design and anyone without previous knowledge can easily master it.

The Main Frame is of the finest grain cast iron, with extra long bearings for the various spindles.

Mechanism is upon the Maltese Cross principle, ensuring steady, flickerless projection.

The Maltese Cross Movement consists of an accurately cut Steel Cross, propelled intermittently by a hardened steel pin fitted to the finger disc.

The cross and shaft, which carries the intermittent sprocket, is made in one, and this is carried in a bracket supported both ends, which gives great rigidity.

The Cross and finger disc are hardened.

The Intermittent Sprocket is made of steel, and the film is held upon it by means of rollers.

The Movement can be easily inspected, and can be lubricated without removing a cover of any kind, although it is quite protected.

The Sprockets are of brass, with machine-cut teeth, to the usual Edison Standard gauge, to take ordinary films, their centres are cleared away so that the emulsion side of the films does not rub against the metal and become scratched.

The Jockey Rollers, which hold the film upon the sprockets, are carefully made and finished and prevent damage to the films.

The masking is done by means of a rack and pinion, and gives one picture adjustment, the optical centre remaining constant.

The balance wheel is of large size and extra heavy, and finely turned, insuring regularity and ease of projection.

All the Gear Wheels are spirally cut; the pinions are steel, cut from the solid.

The Gate is constructed so that only the perforations of films come into contact with the runners, thus the wear of the films is reduced to a minimum, and is fireproof.

The Shutter is provided with two extra blades, to eliminate the flicker.

Chain Re-winding Gear is fitted to the bottom spool arm.

The Spool Re-winder is built upon the machine.

The Machine is enamelled Black, and the wheels, fittings, etc., are nickel plated, giving a fine appearance.

Spools. These are 10 in. diameter, and will carry 1,000 feet of films.

Cinematograph Lens is 3 in. focus, double achromatic, and gives a very good definition, and is fitted in a rack and pinion mount.

The Body is of the best Russian Iron and workmanship, and is large enough to take an ordinary Arc Lamp; it is fitted with a light-tight door, having a special fibre handle and fastening. A brass sight hole is fitted with a special glass, with which it is always possible to see the Arc.

A sliding rod is attached to the back of body for a curtain.

The body is well ventilated.

Entire brass front with conical tube.

Slide carrier stage is fitted with a spring plate.

The Body is mounted upon a travelling base to slide over for Lantern Slide projection.

A Slinging Bracket, which carries a Lantern Lens, is mounted upon the front, which, when the machine is in use is folded up against the body, but required as an optical lantern the body slides across the baseboard and the Lantern Lens is brought into position.

The Condensor, 4 in. Meniscus and Biconvex, mounted in a well ventilated brass cell.

Baseboard is of solid oak, and is well clamped.

PRICES.

Complete as specification with 3 spools	...	£10	0	0
„ if fitted with automatic light cut-off		11	0	0
Mechanism only, without cut-off	... ..	6	15	0
„ with lens	... ..	7	10	0
Iron stand, as illus.	... ..	2	2	0
Spools	... .. each	0	2	6