



D. E. PENFIELD,
PHOTOGRAPHER,
Main St., Warren, Mass.

.....THE BEST
FOR THE MONEY

Ray..... Cameras

ANDREW J. LLOYD & CO.,

323 and 325 Washington St.,

Branch 454 Boylston St.
Dept. 5, Photographic Supplies,
Lenses, Etc

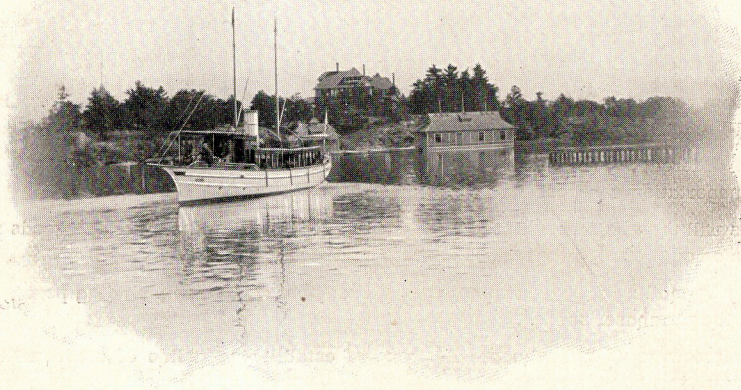
BOSTON.

1898.....

....CATALOGUE....

OF

RAY CAMERAS AND SUPPLIES.

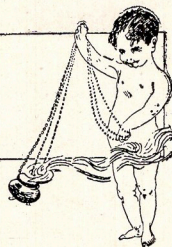


MADE WITH RAY "A" CAMERA.

MANUFACTURED BY
MUTSCHLER, ROBERTSON & CO.,
Rochester, N. Y.



TERMS



Prices given here are all NET.

We guarantee safe delivery of goods at destination.

When ordering goods, please be explicit as to how they shall be shipped. If no instructions are given, we will use our best judgment.

All goods ordered by Express C. O. D. must in every instance be accompanied by double the amount of transportation charges.

The goods will then be sent with the privilege of inspection, and should the goods not be kept, we will return the amount of remittance, less express charges.

Goods sent by mail must be accompanied by full amount of invoice including postage, and will only be shipped at the purchaser's risk.

Parties unknown to us and who are desirous of establishing a line of credit, will save delay in their orders by giving us references.

We prefer that remittances be made by New York Draft, Post Office Order, Money Order, Express Order, or Registered Letter.

If check is sent, 15 cents must be added for cost of exchange.

April 21st, 1898.

TO OUR PATRONS:—

A year ago, we introduced for the first time, our product, unknown, untried, and not advertised to any extent, with nothing to recommend them except their original features and general appearance of good workmanship.

With your co-operation and a judicious amount of advertising, RAY CAMERAS are now known and sold the world over, bearing a record of satisfactory and successful results excelled by none.

"THE BEST FOR THE MONEY" has been our motto throughout, and we have endeavored, both in the quality of our goods and by business efficiency, to merit this reputation.

We present to you in the following pages, our line for 1898, greatly increased with many new improvements, and we trust the pleasant relations which have hitherto existed, will continue for our mutual benefit.

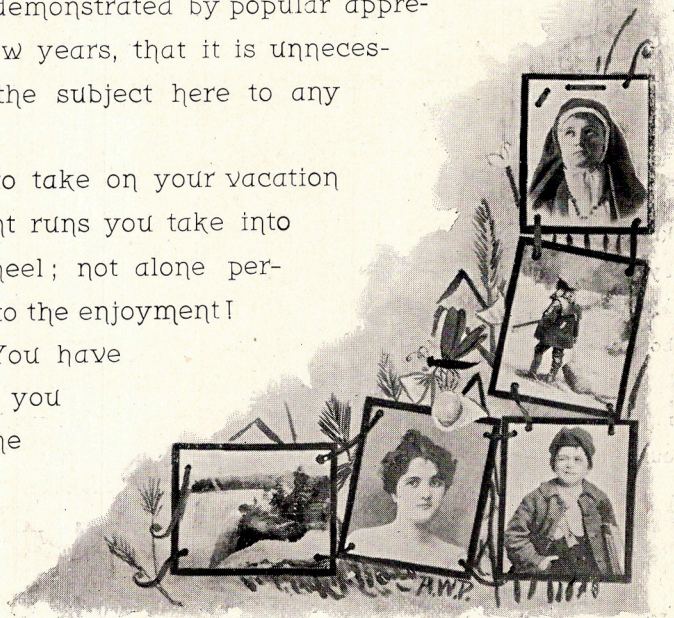
Respectfully yours,

MUTSCHLER, ROBERTSON & CO.

OUR AMATEUR FRIENDS:

The pleasure derived from Amateur Photography has been so thoroughly demonstrated by popular appreciation within the last few years, that it is unnecessary for us to discuss the subject here to any extent.

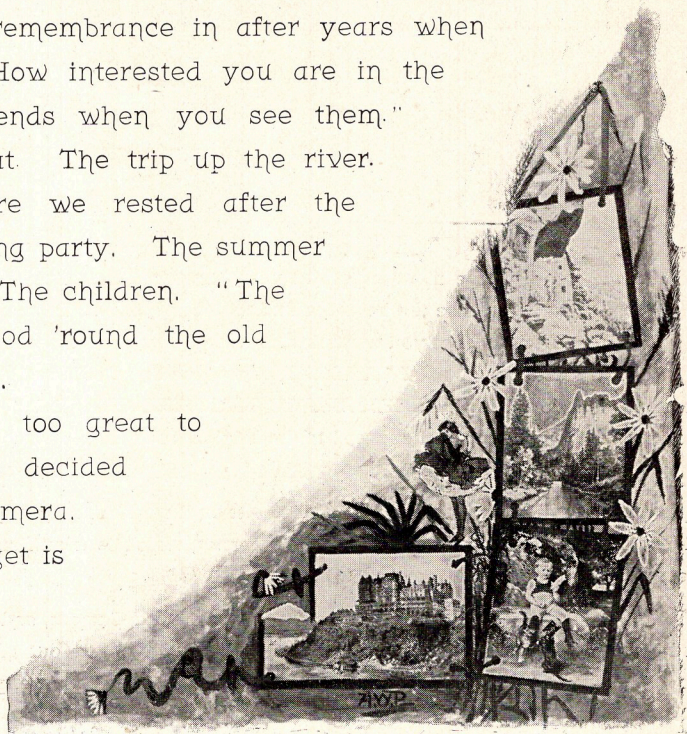
You want a Camera to take on your vacation or to use on those pleasant runs you take into the country on your wheel; not alone perhaps, but that only adds to the enjoyment! You have no wheel! "You have friends near and dear to you that you meet often, some day for the last time!" "If I only had a picture—has too often been the

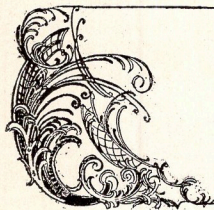


expression and sad remembrance in after years when it was too late!" "How interested you are in the pictures of those friends when you see them." That picnic we were at. The trip up the river. The shady spot where we rested after the long run. The yachting party. The summer cottage. The camp. The children. "The scenes of our childhood 'round the old home" appeal to us all.

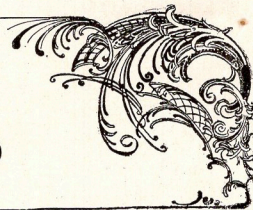
The fascination is too great to be resisted—you have decided you must have a Camera.

What kind shall I get is the next question that confronts you, there are so many.





POINTS TO BE * * CONSIDERED



Easy

Is the most important consideration. Complicated devices are almost certain to

Manipulation confuse the beginner and result in failure. To be able to understand the instrument thoroughly and know what you are doing, is a long way toward success.

All manipulations of RAY CAMERAS, except loading the Plate Holders, can be operated in broad daylight. IT IS NEVER NECESSARY TO TAKE THE CAMERA INTO A DARK ROOM. The Plate Holders can be changed and exposed in the brightest sunlight.

The Lens.

For this you have to depend largely upon the honor and responsibility of the manufacturers, as there is no way of judging it until you have thoroughly tested it. Our Cameras are all fitted with Bausch & Lomb Optical Co.'s Lenses, which is a sufficient guarantee that they are the best that money and skill can produce.

The Shutter.

This is a very important feature in a Camera, and should be carefully examined. It should be simple and practical, with no intricate parts to get out of order. It should work easily and smoothly, thus preventing any movement or jar in making an exposure. Our Hand Cameras are all fitted with our Patent Rotary Shutter, which is constructed of the least number of parts possible, and has given universal satisfaction.

Plates or Cut Films Plates are conceded by all to be the best. Ask any professional photographer or experienced amateur which he uses, and he will invariably tell you "glass plates." The cost is also only about one-half that of films.

Size and Weight Are both things that should be considered and should conform with the necessary wear and tear a Camera is subjected to. Either extreme should be avoided. Too heavy, is cumbersome; too light, is not consistent with durability. RAY CAMERAS, considering their capacity and convenience, are the most compact of any on the market.

In constructing "RAY CAMERAS" we have given the preceding points our careful consideration, and in offering them to the public we sincerely and honestly believe they are "THE BEST FOR THE MONEY."

Instruction Book and Guide for Beginners furnished with every Camera.

Our Patent Plate Holders Are made of drawn steel, blued and lacquered to prevent their rusting or tarnishing. Complete, they measure but one-fifth of an inch in thickness, with rounded corners, so that a half dozen of one size can be easily carried in the pocket. The seams are all double locked, making them absolutely light tight. The slides are of the best hard rubber, with metal heads, thus making the neatest, smallest and most durable Holder in existence; a safety automatic catch prevents the slide being drawn accidentally.

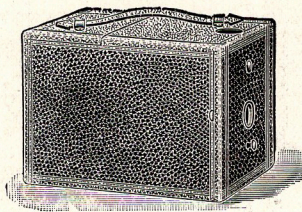
Each sensitive Plate is thus encased in a separate light tight chamber, and cannot be marred or scratched by the next one to it, and they can also be changed and exposed in daylight and any particular one can be taken out and developed without waiting for the others.



Made with Ray Jr. Camera.
Size $2\frac{1}{2} \times 2\frac{1}{2}$ in.

RAY JR. CAMERA

Thousands of unsolicited testimonials from all over the country bear evidence to the fact that this is the only practical and serviceable Camera ever offered for the price. It is as perfect in every detail as more expensive instruments.



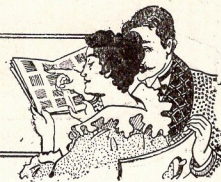
Specifications. Made of the best seasoned material. Covered with genuine seal grain leather. Leather handle. Size, $5\frac{1}{8} \times 3\frac{3}{8} \times 3\frac{1}{2}$ inches. Weight, 7 ounces. Lens, Single Achromatic. Patent Rotary Shutter, for time or instantaneous exposures. Capacity, six Single Plate Holders. Size picture, $2\frac{1}{4} \times 2\frac{1}{4}$ inches. Round View Finder.

Price, including two Plate Holders,	\$2.50
Extra Holders, each,	.25

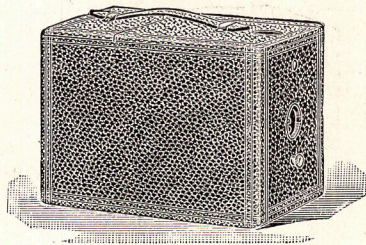


Made with the "Ray" Camera.
Size $3\frac{1}{2} \times 3\frac{1}{2}$ in.

RAY CAMERA



For the last two years this has been the most popular size Camera among amateurs, and owing to the large quantities of these Cameras sold, we have reduced the cost of manufacturing to such an extent that with all the improvements, we can offer it at a price hitherto impossible. It is constructed on the same lines as the Ray Jr., with the addition of a large square view finder, and diaphragm with set of three stops.

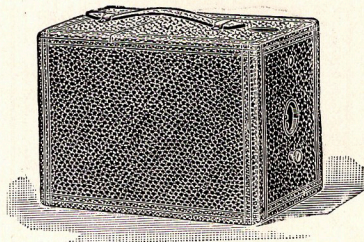


Specifications. Made of the best seasoned material. Covered with genuine seal grain leather. Patent Rotary Shutter and Tripod Socket. Best grade Single Achromatic Lens. Revolving Diaphragm, with three stops. Large square brilliant View Finder. Leather handle. Capacity, six Metal Plate Holders. Size, 6½ x 4¼ x 4¼ inches. Weight, 14 ounces

Price, including two Single Holders,	\$4.00
Extra Holders, each,	.35

RAY SPECIAL

The RAY "SPECIAL," size of picture $3\frac{1}{2} \times 3\frac{1}{2}$, is constructed in exactly the same manner as the Ray, with the exception that it is slightly increased in size to accommodate Double Wooden Holders, instead of our Patent Metal Plate Holders. This was our original \$5.00 Plate Camera, and has met with universal favor among the amateurs.



Specifications. These are the same as the RAY, with the exception of size, which is $7 \times 5 \times 4\frac{1}{4}$ inches. Weight, 1 pound. Capacity, three Double Holders.

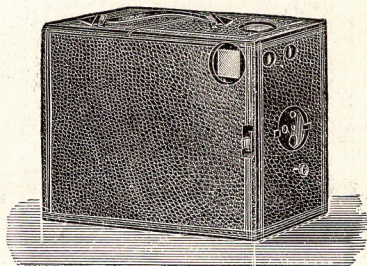
Price, including one Double Wooden Holder,	\$4.00
Extra Holders, each,	1.00



RAY "A" CAMERA



This is the same design as our Ray, only in a $3\frac{1}{4} \times 4\frac{1}{4}$ size, with additional View Finder, so that pictures can be taken either vertically or horizontally. Also, two Tripod Sockets. Plates used are standard size, and especially adapted for Lantern Slide Work. The Lens is a Single Meniscus of the most improved type, giving clear and distinct definition to the corners of the plate.



Specifications. Made of the best seasoned material. Covered with seal grain leather. Leather handle. Diaphragm with three stops. Patent Rotary Shutter. Vertical and Horizontal View Finders. Capacity, six single Metal Plate Holders. Size, $6\frac{1}{2} \times 4\frac{1}{2} \times 5\frac{1}{2}$ inches. Weight, 1 pound.

Price, including two Single Metal Holders,	\$5.00
Extra Holders, each,	.35



Made with Multiplying Attachment.



MULTIPLYING ATTACHMENT



This is the latest and greatest photographic novelty and invention. By means of this attachment, two pictures of a subject or object can be made on the same plate, and blended so perfectly that no division or line is perceptible. For instance, your picture watching yourself reading; looking at yourself riding a bicycle; shaking hands with yourself, and any number of other positions too numerous to mention.

The result is obtained by simply moving a lever, and when not in use does not interfere in the least in using the Camera for ordinary exposures.

Our Ray "C," "B," and "E" Cameras are all fitted with our MULTIPLYING ATTACHMENT, and it costs you nothing. Insist on seeing it before purchasing any other Camera.



Made with Ray "B" Camera.
Size $3\frac{1}{4} \times 4\frac{1}{4}$.

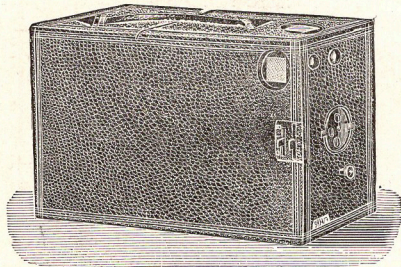


* RAY "B" CAMERA *

'98 MODEL.

This Camera possesses many advantages and improvements over our last year's model "B." More room has been given for the insertion and withdrawing of the Plate Holder, making it more convenient to operate. The Lens has been greatly improved, covering the plates entirely and perfectly to the corners with an extreme depth of focus. The Shutter is provided with Speed adjustment, and in addition to all these improvements, it is fitted with our new PATENT MULTIPLYING DEVICE, making it the most complete $3\frac{1}{4} \times 4\frac{1}{4}$ Camera on the market, without exception.

Specifications. Made of the best seasoned material. Covered with genuine seal grain leather. Leather handle. Rotary Shutter for time and instantaneous exposures. Vertical and horizontal View Finders. Two Tripod Sockets. Revolving Diaphragm, with three stops. Improved Single Meniscus Lens. Size, $8\frac{1}{2} \times 4\frac{3}{4} \times 5\frac{1}{4}$ inches. Weight, 1 $\frac{1}{2}$ pounds. It is made to hold TWELVE of our Single Metal Plate Holders, and they will be furnished with two or twelve Plate Holders, as ordered.



Price, including twelve Single Metal Plate Holders,	\$8.00
“ “ two “ “ “ “	5.00
Extra Holders, each,	.35

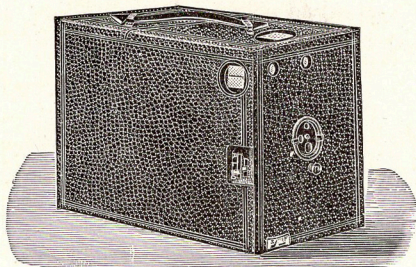


RAY "C" CAMERA



The popular demand for a 4 x 5 Camera of Universal Focus, induced us to put the Ray "C" Camera on the market. This year's model has been greatly improved and now has all the advantages heretofore specified in our Ray "B," with the exception that it has a capacity of six Plates or three Double Wooden Holders. The Lens is greatly improved over that of last year's model, having the advantage of a larger aperture, fine definition, and good covering capacity, with great depth of focus. To any one who wishes to invest a moderate sum in a 4 x 5 Camera, the Ray "C" surpasses any on the market.

Specifications. Made of the best seasoned material. Handsomely covered with seal grain leather. Embossed leather handle. Patent Rotary Shutter for time or instantaneous exposures with speed adjustment. Vertical and Horizontal View Finders. Two Tripod Sockets. Improved Single Meniscus Lens. Revolving diaphragm, with three stops. In addition to all this, this Camera is equipped with our NEW PATENT MULTIPLE ATTACHMENT.

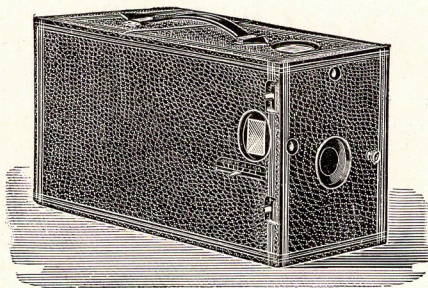


Price, with one Double Holder,	\$5.00
Extra Holders, each,	1.00

RAY "D" CAMERA

The Ray "D" Camera is the most complete Hand Camera on the market, and is especially adapted for either hand or tripod work. The Lens is fitted with sliding mount, that may be focussed at any distance from six feet to any distance desired. The rear of the Camera is fitted with ground glass and door in the back for focusing. The Shutter is the M. R. & Co., the simplest and nearest to perfection of any ever placed on a Hand Camera of this style.

Specifications. Handsomely covered with Seal Grain Leather, and with Leather Handle. An accurately marked Focussing Scale. Two View Finders. Two Tripod Sockets for vertical or horizontal pictures. Best grade Single Achromatic Lens, six inch focus, large aperture, very rapid. Size, $9\frac{1}{4} \times 5\frac{1}{4} \times 6\frac{3}{4}$ inches. Weight $2\frac{1}{4}$ pounds. Capacity, four Plate Holders.



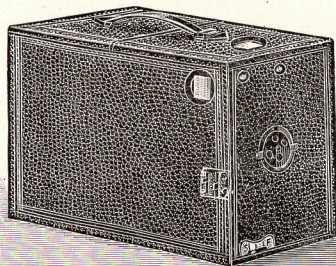
Price, including one Double Holder,	\$8.00
Extra Holders, each,	1.00



* RAY "E" CAMERA *

This Camera is constructed on the same lines as the new Ray "B" Camera. Special attention has been given to the Lens in this Camera, as a Universal Lens, that would cover a 4 x 5 plate, was considered until recently, to be an optical impossibility. After continued experiments and improvements, this Lens has been produced, and is without any exception, the finest Lens in any 4 x 5 Camera for the money. Appreciating the fact that a great number of people desire a Camera complete, when buying, we have equipped this camera with TWELVE of our PATENT METAL PLATE HOLDERS, making without any exception, the most compact, neatest and most serviceable Camera ever offered for the money.

Specifications. Made of the best seasoned material. Covered with Seal Grain Leather. Leather handle. Two View Finders. Two Tripod Sockets, for vertical or horizontal pictures. Patent Rotary Shutter, with Speed adjustment. Fine improved Single Meniscus Lens, fitted with Revolving Diaphragm with Three Stops. TWELVE SINGLE PLATE HOLDERS and our new PATENT MULTIPLYING ATTACHMENT. Size of Camera, 9¼ x 5 x 6½ inches. Weight, including Plate Holders, 3¼ pounds.



Price, Including 12 Holders,

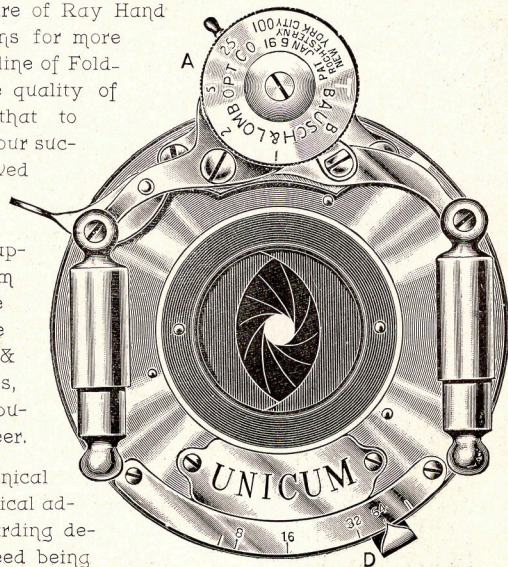
No Extras.

\$10.00

RAY FOLDING CAMERAS

The success we have met in the manufacture of Ray Hand Cameras, and the constant demand of our patrons for more expensive instruments, has induced us to place a line of Folding Cameras on the market. Fully realizing the quality of the goods already in the field, we appreciate that to introduce an inferior article, would be fatal to our success. With greatly increased facilities and improved methods of manufacture, we have produced a line of Cycle Folding Cameras that are in quality of workmanship, manipulation, durability and appearance, second to none. We invite criticism and comparison in these respects with any on the market, and feel confident they are equal to the test. These Cameras are all fitted with Bausch & Lomb Optical Co.'s Unicum Shutters and Lenses, goods that have already acquired a world-wide reputation, that is beyond question and without a peer.

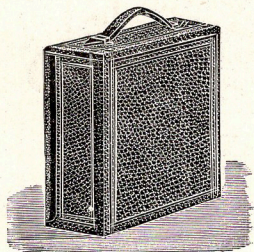
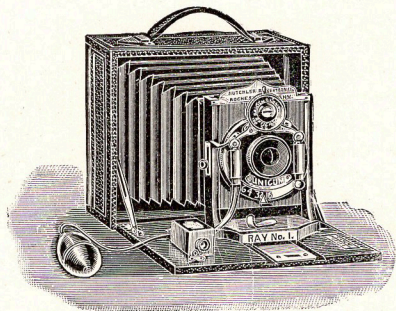
Shutters. The Shutter is of the best mechanical principle and workmanship, and has the only practical adjustment of speed, all being fitted with an air retarding device, and Iris Diaphragm, any adjustment of speed being obtainable from one hundredth of a second to five seconds, and any size aperture from F-8 to F-128, thus giving the operator the greatest possible control of light under its various conditions.



RAY FOLDING No. 1

This is the most popular style of Cycle Folding Camera, being very compact and light, and

especially adapted for wheelmen and tourists. It is made of the best seasoned mahogany, highly finished and trimmed with polished and lacquered brass. The front has a rising and falling movement and can be securely clamped in any position. The finder is reversible for either vertical or horizontal pictures. The focusing scale is accurately marked for six feet and any distance beyond. The ground glass frame forms the back of the Camera, and has a door for focusing on ground glass. It is spring actuated and recedes for the inserting of the Plate Holder. Every part is carefully fitted to work easily and smoothly. The whole is handsomely covered with seal grain leather, furnished with a sole leather case. Made in two sizes, 4 x 5 and 5 x 7. The 5 x 7 is provided with Rack and Pinion focusing attachment.



Specifications. 4 x 5, when closed, size, 6 x 5 $\frac{1}{4}$ x 2 $\frac{1}{4}$ inches; weight, 1 $\frac{1}{4}$ pounds. 5 x 7, when closed, size, 8 $\frac{1}{4}$ x 6 $\frac{1}{4}$ x 2 $\frac{3}{8}$ inches; weight, 2 $\frac{1}{4}$ pounds. The price includes Unicum Shutter, Single Achromatic or R. R. Special Lens, Leather Carrying Case with Shoulder or Bicycle Straps, and one Double Plate Holder.

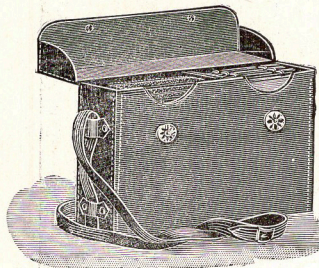
	4 x 5	5 x 7
Price, Single Achromatic Lens,	\$15.00	\$22.50
“ R. R. Special Double Lens,	16.00	24.00
Extra Holders, each,	1.00	1.25



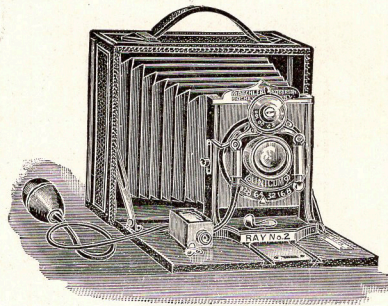
CYCLE FOLDING, No. 2



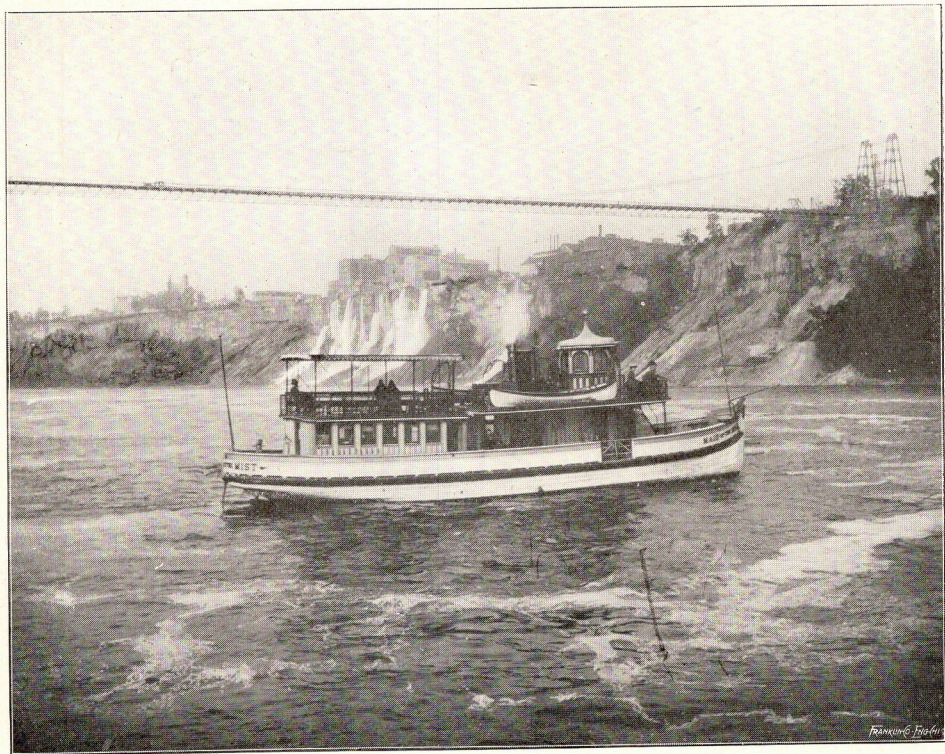
This is the same design as the No. 1, with the exception that the Lens is a high-grade Rapid Rectigraphic, fitted with rising and sliding front and detachable lens board.



The price includes Sole Leather Case, with Shoulder or Bicycle Straps and one Double Plate Holder.



	4 x 5	5 x 7
Price,	\$20.00	\$27 50
Extra Holders, each,	1.00	1 25
Extra for Rack and Pinion on 4 x 5 Size,	3.00	



Made with No. 2 "Ray."
Size 4 x 5



* CYCLE FOLDING *

RAY No. 3.

These Cameras are constructed on the same lines as the preceding styles, with same Lens and Shutter as No. 2. In addition to this, both sizes are provided with Rack and Pinion focusing attachment, rising and sliding front. Made of the finest mahogany, highly polished and finished.

The trimmings are all of selected brass, handsomely polished and lacquered, making the finest Camera in this style ever offered to the amateur.

As in preceding styles, the price includes Carrying Case with Shoulder or Bicycle Straps, and one Double Plate Holder.

Size of 4 x 5 is 6 x 5 $\frac{1}{4}$ x 2 $\frac{1}{4}$ inches. Weight, 2 pounds. Size of 5 x 7 is 8 $\frac{1}{2}$ x 6 $\frac{1}{4}$ x 2 $\frac{1}{2}$ inches. Weight, 2 $\frac{1}{2}$ pounds.

Price, 4 x 5,	\$25.00
Extra Holders, each,	1.00
Price, 5 x 7,	30.00
Extra Holders, each,	1.25

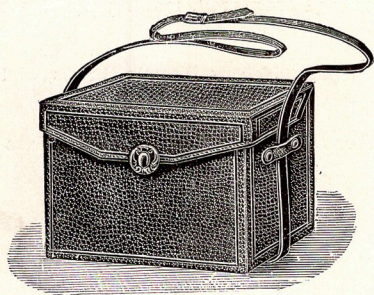
Instructions furnished with every Camera.



CARRYING CASES

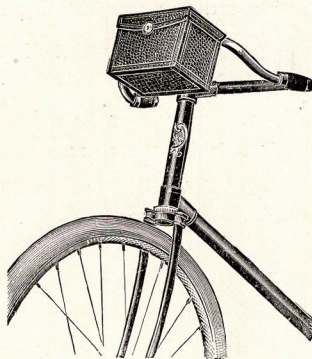


Are the handsomest, strongest and best made case on the market. The catches are heavily nickeled.



PRICE.

Ray Jr. Case,	2½x2½.....	\$1.00
Ray	" 3½x3½.....	1.25
Ray A	" 3½x4¼.....	1.25
Ray B	" 3½x4¼.....	1.50
Ray C or D	4 x5 ...	2.00
Ray E Case	4 x5 ...	2.00



These are made in two styles, for the Bicycle, and with Shoulder Straps. In ordering, state which is desired, or we will send one with Shoulder Strap

RAY TRIPODS

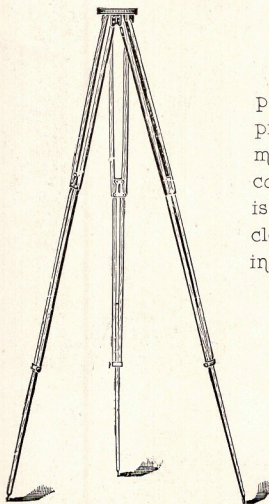
The Sliding Tripod is made in three pieces of the best seasoned spruce, the center pieces sliding within the outer ones, and, by means of an improved milled head screw, can be held at any desired height. The top is made of wood and neatly covered with cloth. When closed, it measures but 30 inches and weighs only 17 ounces.

Price, 2½x2½ to 5x7 Cameras, \$2.00.

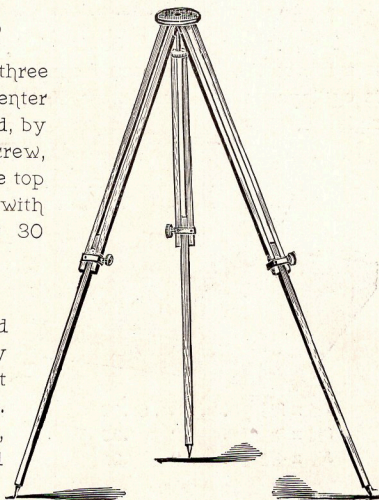
The Compact Tripod is made to fold and slide and can be adjusted to any desired height. It is made of the best selected spruce with brass trimmings. When fully extended it is five feet long, and when closed but 22 inches and weighs only 1½ pounds.

The top is made of wood and covered with soft cloth to prevent marring the camera.

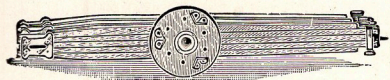
Price, 3½x4¼ to 5x7 Camera, \$3.00



COMPACT.



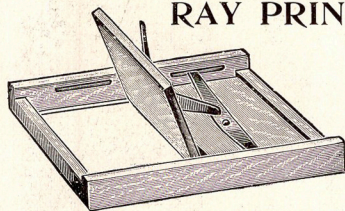
SLIDING.



No. "0" SLIDING TRIPOD

This is the lightest Sliding Tripod on the market. It is made of the best selected spruce, finished in shellac and is equipped with our Patent Metal Head, making it very rigid. Length closed, 28 inches; weight, 15 ounces.

Price, \$1.75

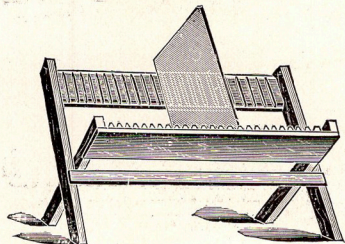


RAY PRINTING FRAMES

Are made especially for the amateur. They are made of the best seasoned cherry and the springs of the best spring brass. They are light and strong.

2½ x 2½	Price, \$	.25
3½ x 3½	"	.25
3¼ x 4¼	"	.25

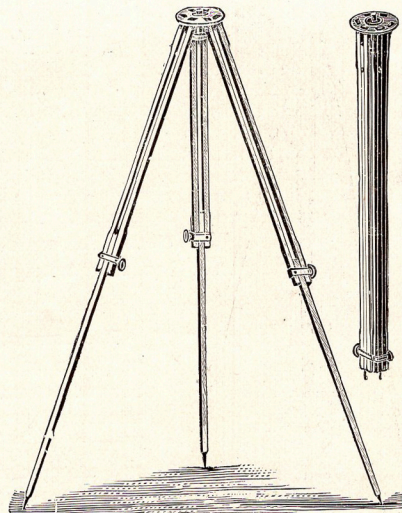
4¼ x 4¼	\$	.25
4 x 5		.25
5 x 7		.40



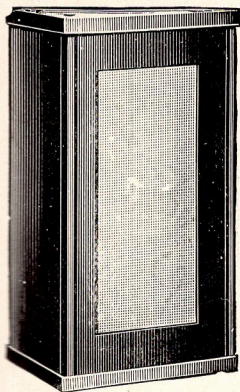
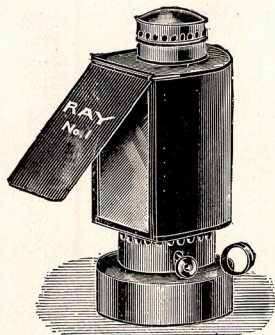
RAY NEGATIVE RACKS

Are a very convenient accessory for the dark room, preventing the negative from becoming scratched while drying. They fold up flat, are light, strong and will hold any size negative up to 6½ x 8½.

Price, plain,	\$	.25
" finished,		.40



RAY DARK ROOM LAMPS

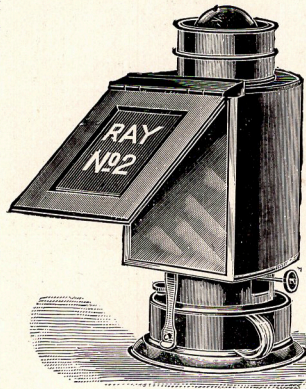


These Lamps are of our own design and construction and are absolutely the best made and finished Lamps on the market. They have central draft, hence no smoke or fume, but a steady, safe light and plenty of it. In the No. 2 the body is hinged at the back and has both orange and ruby glass.

The light is controlled from the outside, and an adjustable shield protects the eyes, throwing the light directly on the developing tray.

The No. 1 is smaller than the No. 2, and glass is raised in the side to light the wick, but the flame is controlled in either case from the outside.

Price, No. 1, \$.80 No. 2, \$1.00



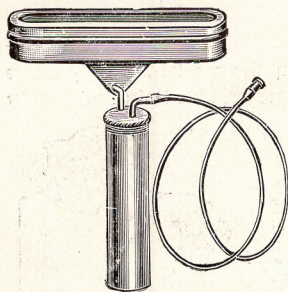
COMPACT CANDLE LAMP

The Compact Candle Lamp is a new design in collapsible lamps and is intended more especially for use when traveling.

The top and bottom may both be removed and packed with the body of the lamp in a box only one inch in depth.

Price, \$.50

THE RAY FLASH LAMP



Flash Light Photography is now attracting widespread attention among the amateurs, and the Ray Flash Lamp fills a long-felt want. With it, interiors, groups, dinner and card parties may be taken as clear and sharp as if they were in bright sunlight.

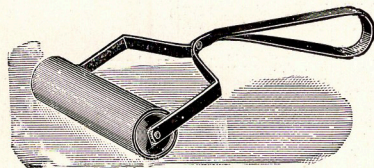
The lamp is constructed on strictly scientific principles, enough air being mingled with the powder to produce perfect combustion, giving a large, wide flash that can be looked at without closing or blurring the eyes. The flash can also be made instantaneous or steady for any length of time desired.

Pure magnesium powder only is used, being considered by all to be the best artificial light, as well as the **ONLY SAFE ONE TO USE**. Other so called flash light powders are explosive, and are therefore **DANGEROUS**. **PURE MAGNESIUM IS NOT**. Twenty-five to thirty ordinary exposures can be made with this lamp without reloading. It is small, compact and can be easily carried in the pocket. It is the most economical, because it burns all the powder. Made in two sizes.

Price, No. 1 for Amateurs,	\$1.50
" No. 2 for Professionals,	3.00

PRINT ROLLERS

The four and six inch rollers have wood center, rubber covered, one inch diameter, nickeled steel frame, and with handles in such position that no "twist of the wrist" needed to get the strongest pressure with the least effort. The eight and ten inch rollers have cast iron frame, very rigid, hand-somely buffed and nickel plated.

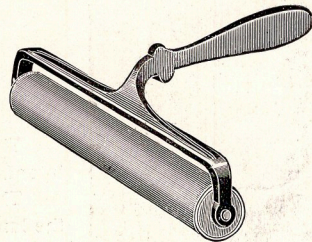


Prices, 4 inch, \$.25

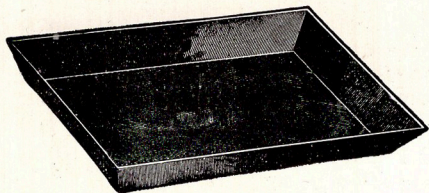
6 inch, \$.50

8 inch, \$.60

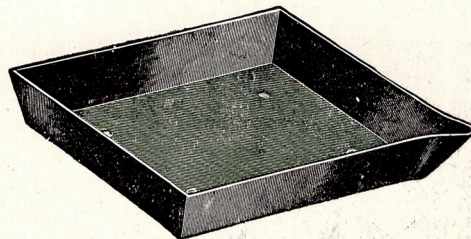
10 inch, \$.75



DEVELOPING TRAYS



SHALLOW



DEEP

The latest, the cheapest, the best. Guaranteed to be acid and alkali proof. The best in the market for developing and toning.

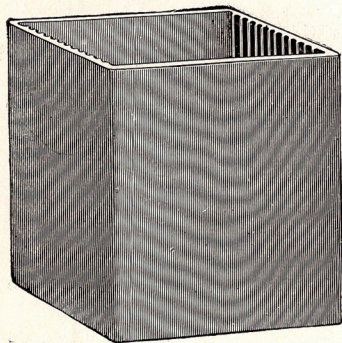
The above cuts show the relative shape and depth of the two styles. Both have slight knobs on the bottom, and the deep trays all have a lip.

	SHALLOW		DEEP		SHALLOW		DEEP
Prices: $3\frac{1}{4} \times 4\frac{1}{4}$	\$.20			7×9	\$.70		\$.85
$4\frac{1}{4} \times 5\frac{1}{2}$	.25		\$.50	$8\frac{1}{2} \times 10\frac{1}{2}$	1.05		1.10
$5\frac{1}{2} \times 8\frac{1}{2}$	.55		.70				

GLASS FUNNELS

Price: $\frac{1}{2}$ pint,	\$.15
1 " "	.20
1 quart,	.25

FIXING BATHS



1

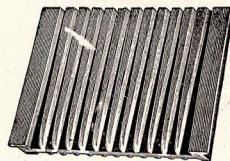
New styles with many improvements. Made of the same material and possessing the same properties as the developing trays. Each bath holds 24 plates.

Cut No. 1 represents the bath for 4 x 5 plates only.

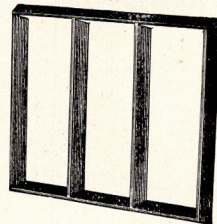
The next regular size of bath (of which no cut is shown) contains grooves on all four sides, and being a little longer than it is wide, takes 5 x 8 plates one way, and 5 x 7 plates the other, thereby doing the work of two ordinary boxes.

Cuts No. 2 and 3 represent a grooved partition and rack designed to fit inside

the box last described, and such box with these extra parts will accommodate 24 plates of any size from $3\frac{1}{4} \times 4\frac{1}{4}$ up to 5 x 8 at the pleasure of the operator, thereby filling a want long felt by the trade.



2



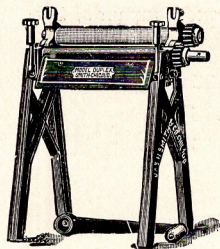
3

Prices:	4 x 5 Plates, each,	\$2.00	5 x 7 and 5 x 8 with extra parts, each,	\$3.00
	5 x 7 and 5 x 8 Plates, each,	2.25	Extra Parts (separate from box) per pair,	.75

These goods, both trays and baths, are not dipped or coated on the outside, but are moulded from a plastic, fibrous material, are the same throughout, and are without seam or joint.

Endorsed by the profession and deservedly the most popular goods of the kind on the market.

THE MODEL DUPLEX BURNISHER



This is a new machine, built to meet the growing demand for a good double roll burnisher in small sizes, at lower prices than those heretofore offered. It is thoroughly well made in every detail. The top roll is hinged, and the pressure can be quickly and perfectly adjusted. The roll is quickly heated with either oil or gas, and results produced are unsurpassed by any burnisher made.

Prices : 6 inch, with Oil or Gas Heater,					\$7 50
8	"	"	"	"	10.00
10	"	"	"	"	12.50
12	"	"	"	"	15.00

DEVELOPING AND PRINTING OUTFIT

The Developing and Printing outfit consists of the following, arranged in sizes according to size of Camera :

3 Fibre Trays, 1 Dark Room Lamp, 1 Printing Frame, 1 doz. Ray Paper, 1 bottle Ray Toning and Fixing Solution, 2 packages Developing Powders for 8 ounces Developer, 1 package Hyposulphite Soda, 1 Glass Graduate, Book of Instructions.

This outfit cannot be shipped by mail.

Price :	2½ x 2½ Camera,	.	.	.	.	\$1.25
	3½ x 3½ "	.	.	.	.	1.50
	3¾ x 4¾ "	.	.	.	.	1.50
	4 x 5 "	.	.	.	.	2.00

In our 4 x 5 outfit we put our Compact Candle

DRY PLATES

We sell several makes of Dry Plates, among them being Cramer's, Climax, Hammer's, Seed's, Stanley's, Standard and Cyclone.

Size	2½ x 2½								Price, \$	.25
"	3½ x 3½								"	.35
"	3¼ x 4¼								"	.45
"	4 x 5								"	.65
"	5 x 7								"	1.10

CUT SHEET FILMS

For use in our new Patent Plate Holder.

The saving in weight, their great compactness and freedom from imperfections are a few of the advantages claimed for them.

Size	2½ x 2½								Per doz. \$	.40
"	3½ x 3½								"	.50
"	3¼ x 4¼								"	.60
"	4 x 5								"	.95
"	4¼ x 6½								"	1.25
"	4¼ x 6½								"	1.40
"	5 x 7								"	1.60
"	5 x 8								"	1.80

RAY PAPER

A reliable photographic printing-out Paper. This Paper will print with brilliant high lights, giving silky half-tones, and rich, transparent shadows, can be used with combined or separate toning baths, and suitable for strong or soft negatives.

2½ x 2½ inches,	.	.	per doz., \$	.10	per gross, \$	.60
3½ x 3½ "	"	.	"	.10	"	.75
3½ x 4¼ "	"	.	"	.10	"	.75
4 x 4 "	"	.	"	.15	"	1.00
4 x 5 "	"	.	"	.15	"	1.00
5 x 7 "	"	.	"	.20	"	1.75
5 x 8 "	"	.	"	.25	"	2.00
6½ x 8½ "	"	.	"	.35	"	3.00
8 x 10 "	"	.	"	.45	"	4.00

COLODION MAT PAPER

2½ x 2 ½ inches,	.	.	per doz., \$	.15	per gross, \$	.75
3½ x 3½ "	"	.	"	.20	"	1.60
3½ x 4¼ "	"	.	"	.20	"	1.60
4 x 4 "	"	.	"	.25	"	2.00
4 x 5 "	"	.	"	.25	"	2.00
5 x 7 "	"	.	"	.40	"	3.50
5 x 8 "	"	.	"	.45	"	4.00
6½ x 8½ "	"	.	"	.65	"	6.00
8 x 10 "	"	.	"	.90	"	8.00

BLOTTING PAPER

For drying prints.

Size: 9 x 12 inches, per doz. sheets,	\$.30
" 12 x 19 " " " "	.55
" 19 x 24 " " " "	1.10

CAMEL HAIR BRUSHES

These brushes are very soft and are used for dusting off plates.

Size: 1 inch wide, \$.25	Size: 2½ inches wide, \$.60
" 1½ " " .40	" 3 " " .80
" 2 " " .50	

FLAT PASTE BRUSHES

Size: 1 inch wide, \$.15	Size: 2 inches wide, \$.25
" 1½ " " .20	" 2½ " " .30

CARD MOUNTS FOR MOUNTING PRINTS

The sizes given are the size of the print, the actual size of the card mount being much larger, to allow a margin. Put up in packages of two dozen each. Embossed and in assorted colors.

Size: 2½ x 2½ inches,	per pkg., \$.15	per 100, \$.60
" 3½ x 3½ " " "	.20	.80
" 3½ x 4½ " " "	.25	.90
" 4 x 5 " " "	.25	.90
" 5 x 7 " " "	.40	1.50
" 5 x 8 " " "	.60	2.35
" 6 x 8 " " "	.75	2.85
" 8 x 10 " " "	.90	3.60

FERROTYPE PLATES

Have a highly polished surface and are used for drying prints on when it is desired to have a high gloss without burnishing. Cannot be sent by mail.

Size 10 x 14, Light,	Price each, \$.15	doz. \$1.25
" " Heavy,	" .20	" 2.00

TONING AND FIXING SOLUTION

Ray Concentrated Combined Toning and Fixing Solution, including Chloride of Gold.

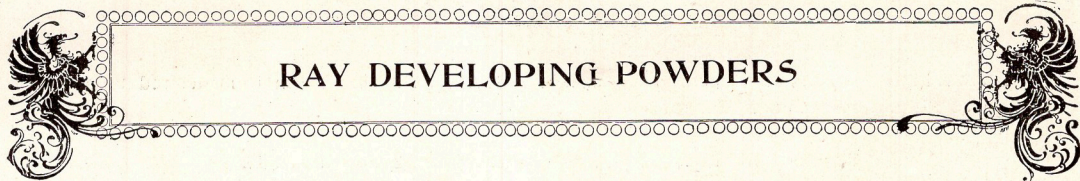
Price, 4 oz. bottle,	\$.25
8 "	.35
12 "	.50

RAY EIKONOGEN DEVELOPER

CONCENTRATED.

We claim for this Developer that more can be done with a plate than with any Developer on the market. It gives soft, brilliant negatives. Can be used repeatedly until strength is gone.

Price, 8 oz. bottle,	\$.30
16 "	.60



RAY DEVELOPING POWDERS

Put up in dry form, so that the contents of an envelope only need to be dissolved in 8 ounces of water and the developer is ready for use.

Price per box of Six, \$.50

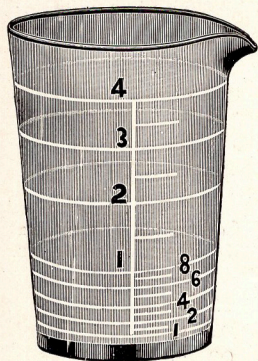
CHEMICALS

Acid, Citric, per oz.,	\$.20	Litmus Paper,	\$.15
" Pyrogallie, per oz., . . . .	.50	Soda, Sulphite, (Crystals) per lb., . . . .	.20
Alum, Powdered, per lb., . . . .	.25	" Hyposulphite (1 lb. box), . . . .	.10
Ammonium, Bromide, per oz., . . . .	.20	" " (5 lb. box), . . . .	.35
Eikonogen, per oz., . . . .	.50	" Carbonate, per lb., . . . .	.15
Glycerine, per oz., . . . .	.20	Potash, Carbonate, . . . .	.25
Gold, Chloride, (15 grain bottle), . . . .	.60	" Metabisulphite, per oz., . . . .	.40
Hydrochinone, per oz., . . . .	.50	Magnesium Powder, per oz., . . . .	.50

MISCELLANEOUS SUPPLIES

MEASURING GLASSES.

GRADUATED.



These answer every purpose as a regular graduate, the 2 and 4 ounce sizes being graduated into drachms, and the 8 ounce into ounces only. They are more durable than graduates, and are very popular on account of price.

Price: 2 oz.,	.15
4 oz.,	.20
8 oz.,	.25

RAY MOUNTING PASTE

Size, ½ pt. Jar,	.15
" 1 pt. Jar,	.25



RUBBER PLATE HOLDER SLIDES

2½ x 2½,	.15
3½ x 3½,	.20
3¾ x 4¼,	.20
4 x 5,	.25

GROUND GLASSES

4 x 5, each,	.15
5 x 7, "	.20
No. 1, Ruby Glass,	.10
" 2, Ruby or Orange,	.15

All Milled Heads, Nuts and Screws, each	.25
Bulb and Hose,	.75
Bellows for 4 x 5 Cycle Cameras,	2.50
" " 5 x 7 " "	3.00

Goods ordered by mail must be accompanied by the following additional amounts for postage :

Ray Jr. Camera,	15 cents.
Ray Jr. Holders, each,	02 "
3½ x 3½ Holders, each,	03 "
3½ x 4¼ Holders, each,	04 "
4 x 5 Holders, each,	05 "

CARD MOUNTS.

Ray Jr., per dozen,	04 cents.
Ray Jr., package of 25,	08 "
3½ x 4¼ and 3½ x 3½, per dozen,	08 "
3½ x 4¼ and 3½ x 3½, per 25,	16 "
4 x 5, per dozen,	11 "
4 x 5, per package of 25,	22 "

PLATES.

2½ x 2½, per dozen,	10 cents.
3½ x 3½, per dozen,	16 "
3½ x 4¼, per dozen,	18 "
4 x 5, per dozen,	28 "

PRINTING PAPER.

	PER DOZEN	PER GROSS
Ray Jr., 2½ x 2½,	02 cents,	06 cents.
Ray, 3½ x 3½,	02 "	10 "
Ray, 3½ x 4¼,	02 "	10 "
Ray, 4 x 5,	03 "	14 "
Ray, 5 x 7,	05 "	25 "

Ray No. 1 Flash Lamp, each,	07 cents.
Ray No. 2 Flash Lamp, each,	12 "
One Box Developing Powders,	07 "

Toning Solutions, Developers in bottles, Ferrottype Plates, etc., cannot be sent by mail.