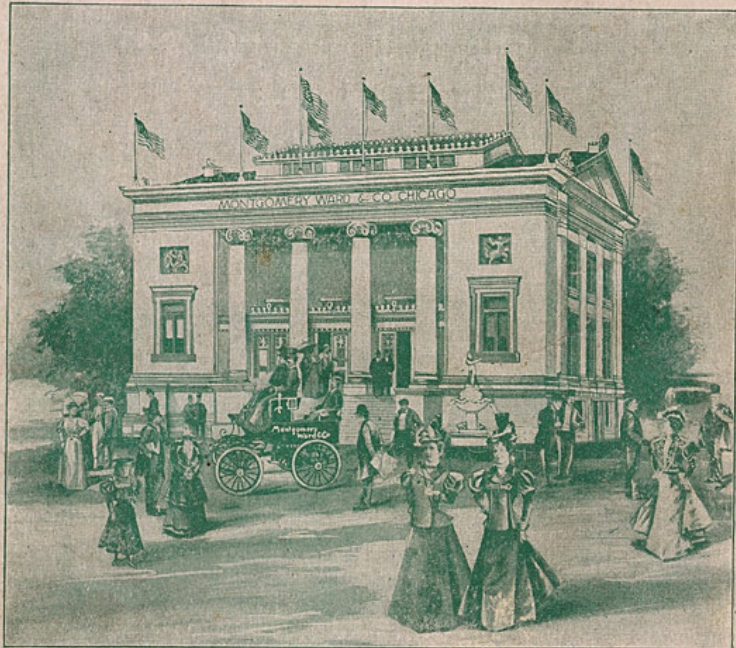


Trans-Mississippi and
International Exposition.....

Omaha, Nebraska
June to November
1898...

THIS IS OUR BUILDING. Its dimensions are 44 x 64 feet. The height to the cornice is 33 feet, and the design is pure Greek of the noblest character from the period of the temple of Apollo at Bassee. The exterior is commanding and ornamental, exposing designs and finish chaste and beautiful. The interior is finished in white pine with ornamental trimmings, all done in a thoroughly artistic and appropriate manner; the furniture is of solid cherry.



IT IS CONCEDED TO BE THE HANDSOMEST BUILDING on the grounds built by private enterprise. It occupies a prominent corner on the Grand Plaza. The site is lofty and conspicuous and affords a magnificent view of the eastern portion of the Exposition Grounds, the Grand Plaza, the entrance to the Midway, the Horticultural and all the State buildings.

THE BUILDING WILL BE OCCUPIED WHOLLY BY US. We have appropriated \$25,000.00 for its erection and the making of an exhibit of the goods we manufacture, and for the further purpose of having a place where our customers can meet their friends, can rest and enjoy themselves, at the same time being pleasantly entertained by seeing the most beautiful of stereopticon views and the magniscope, the latter portraying in the most vivid manner, moving pictures of scenes of various descriptions throughout the United States and the world, also enjoying phonographic concerts and the choicest selections of popular and classic airs, performed on our piano through the medium of an electrical attachment. All this will be free to you. Come and see us at the Omaha Exposition and make our building your headquarters.

Montgomery Ward & Co.

111 to 120 Michigan Avenue, Corner Madison Street, Chicago

Catalogue "G" 1898
Photographic
Apparatus
and
Materials
Magic Lanterns
and Accessories
Stereoscopes & Views



Montgomery Ward & Co.

Originators of The Catalogue Business

111 to 120 Michigan Ave. Chicago

This Catalogue

is intended to be complete in its exhibit of

Photographic Apparatus

But no catalogue could be compiled that would contain everything of interest to professionals and amateurs alike. The rapid development of new processes, and the restless activity of the inventive age in which we live render that impossible. We are in the closest possible touch, constantly, with the latest phases of the market, and are ready to inform you quickly and reliably upon request concerning any goods in the lines indicated in this catalogue. Our equipment of

Magic Lanterns, Sciopticons, Stereopticons, Dissolving View Apparatus, Etc., Moving Picture, and Talking Machines

Is only partially represented here. The very great and growing demand for the photographic materials made their ample representation imperatively necessary, and the other lines were unavoidably crowded for space. But our stock is very complete, and you have only to make inquiry about anything not listed in this catalogue, and you will receive prompt and painstaking information.

Write us for any special information desired — you'll receive a prompt reply

Montgomery Ward & Co.

Originators of the
Catalogue Business

111 to 120 Michigan Avenue
Corner Madison Street
Chicago

TO THE PUBLIC.

With this issue we present to you for inspection and perusal the Annual Edition of our Photographic Catalogue.

ALL OUR PHOTOGRAPHIC OUTFITS

are provided with full instructions. These instructions are so complete that any one of intelligence can readily acquire the knowledge necessary to properly operate the camera, develop the plate (or film) and print and finish the picture.

WE DO NOT SELL CAMERAS OR OUTFITS ON TRIAL,

nor can they be returned after having been used, as very little use of a Camera renders it second-hand, and we have no means of disposing of second-hand goods.

WE ARE PROGRESSIVE

and improve our apparatus when practicable, availing ourselves of every possible modification and improvement. Should these changes cause slight changes from the printed description or illustration, it will be for the better, and we trust will cause no dissatisfaction.

OUR TERMS ARE CASH IN ALL CASES.

At least one-third of the total cost must accompany all orders for Cameras and outfits shipped C. O. D. We do not ship Photographic Outfits on trial, nor can they be returned after having been used, as a very little use of a Camera renders it second-hand, and we have no means of disposing of second-hand goods.

No goods will be sent by express to points off a railway, unless paid for.

When ordering goods to be shipped by mail, be sure to allow enough for postage. If you send too much we will refund the balance.

Our responsibility ceases when we have obtained a receipt in good order from the transportation company.

AS TO PRICES

Our policy has always been to sell goods at as low a price as we could afford to without regard to the market or to established prices. We allow discounts as follows, when money accompanies the order, and in no other case:

On orders amounting to \$20.00 and up to \$50.00, 2 per cent. discount.

On orders amounting to 50.00 and up to 100.00, 3 per cent. discount.

On orders amounting to 100.00 and up to 150.00, 4 per cent. discount.

On orders amounting to 150.00 and upwards . . . 5 per cent. discount.

Except where prices are stated as "net."

AMATEUR PHOTOGRAPHY

is growing more and more in favor the world over. It offers greater attractions than all the arts heretofore introduced in popular form, for while it answers fully the requirements of mechanical taste, it offers constant opportunities for the exercise of other intellectual qualities.

Since the introduction of the hand cameras, picture making has been so simplified that the possibilities of photography are brought within the reach of all. The amateur photographer is now found among persons in nearly every walk of life. The business and professional man finds photography a valuable assistant as well as a pleasant recreation.

TO THE TOURIST,

whether he travels by Rail, Boat or Wheel, it affords a never-ending source of enjoyment. To record with accuracy the events and scenes of his tour is an enjoyment at the time, and a greater one when he sees the finished photograph.

THE SPORTSMAN

will find the camera a valuable companion. Pictures of camp-life will prove intensely interesting to the friends at home, who are thus enabled to catch a glimpse of life in the woods. Then, too, they are not "fish stories" when you can show a photograph of the "catch." A camping outfit is not complete without a camera. Surely, there is no more pleasant souvenir of vacation rambles than photographs made by one's self, of the various scenes and incidents connected with one's outings. Many recollections are thus preserved and the history of the pleasant holiday is brought to mind by a glance at the finished picture long afterward.

FROM A PRACTICAL POINT OF VIEW

landscape photography offers pleasing and profitable employment, as is attested by the many "Viewing Companies" now on the road. It offers an excellent method of paying expenses of travel to those who are compelled to seek change of climate without the necessary means to do so; as the work is light, and persons in delicate health have little difficulty in carrying on the business satisfactorily.

CAN I SUCCEED?

This is a question frequently asked us. Our answer is "Yes." We wish it were more generally known how easy it is to make the most beautiful photographs. Provided the amateur is supplied with apparatus of approved quality, we have no hesitancy in emphasizing the statement that anyone of average intelligence and ability can readily produce pictures of the most satisfactory character without previous experience.

All Photographic Outfits that we sell are accompanied with full instructions. These instructions are so explicit that anyone of intelligence, by following them closely, can soon acquire the knowledge necessary to properly operate the Camera, develop the plate (or film) and print and finish the picture.

THE CHOICE OF A CAMERA

Is dependent largely upon the personal preference of the purchaser, and should be regulated by the use to which it is to be put; whether for pleasure only or as a means of livelihood. Some amateur photographers prefer the use of "film" because of its greater compactness as compared with glass plates. Others use glass plates because experience has taught them that the best results are obtainable from plates. A happy medium is the hand Camera, in which either films or plates can be used.

FOR THE PROFESSIONAL PHOTOGRAPHER'S

Use or for one who is desirous of entering the field as a means of livelihood, the View Camera and necessary lens, tripod and plate-holders is the proper equipment

THE PORTRAIT PHOTOGRAPHER

As a rule uses the regular Portrait Camera and camera stand (instead of a tripod) although this is not absolutely necessary, as many portrait artists who cannot afford the high priced portrait apparatus use their viewing outfits for gallery work.

FOR PORTRAIT WORK

In the studio a high grade rapid lens should be used, as in the gallery the negative is produced under much more difficult conditions as applied to light, shade, subject, etc., than applies to the taking of groups, landscapes, etc., in the open air, and the working speed of the lens is the great requisite.

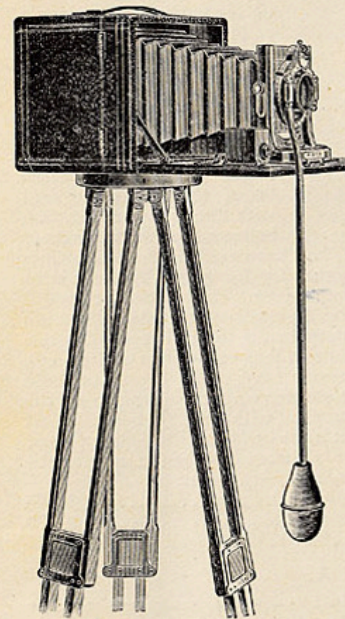
In the following pages we offer for your consideration, apparatus suitable for the use of the amateur and professional photographer and of the tin-typer.

A conscientious effort has been made to list only goods of known quality, and our patrons can rest assured that in purchasing they will receive the best possible value for the money expended

FOLDING HAND CAMERAS.

The immense popularity of our **Thornward Folding Cameras** during the past season has encouraged us to further improve and enlarge this line. Our Cameras have established for themselves a reputation for excellence in quality, beauty of finish, utility and moderation in price. All are made of first quality materials, are well and accurately put together, and are in all respects of superior workmanship. They are *made to last*, and if properly cared for will do so for years. We have in every case fitted them with the lens best adapted to the respective box, and each instrument bears the guarantee of Montgomery Ward & Co. to be exactly as it is represented, and we confidentially assure the many friends of our Photographic Department that better values were never offered. To these we invite your careful and critical attention.

The Thornward C.



The Thornward C on Tripod.

Is a beautiful representative of the hand camera, as in it is contained every improvement and adjustment known to modern photography. It is made from selected mahogany, covered with fine black leather. The bed is highly polished and metal parts of lacquered brass, the whole presenting an extremely handsome appearance.

The THORNWARD C has double swing back, double sliding and falling front that can be worked in either a vertical or horizontal position, rack and pinion for focusing, and a combination reversible view finder and level. The box is fitted with two tripod plates, and the back panel is hinged so that it can be swung open when it is desired to focus by means of the ground glass screen. This makes the camera available for doing regular viewing work as well as for snap shots.

The lens is our extra rapid rectilinear, possessing great speed and covering capacity. The shutter is a Bausch & Lomb Unicum, working automatically from $\frac{1}{100}$ of a second to one second. It works between the lenses without noise or jar, and may be adjusted for time and instantaneous, and an entirely new speed, continuing the exposure while the pressure remains on the bulb. It is supplied with both finger and pneumatic bulb release. Wide angle lenses can be supplied in cells interchangeable in the shutter.

The ground glass is spring actuated and recedes to allow the insertion of the plate holder.

Glass plates, cut films and roll films may all be used, the various holders required being interchangeable.

Size 4 x 5, measures $5\frac{1}{2}$ x $4\frac{1}{4}$ x 6 inches, weighs but two pounds, and holds four dry plate-holders or roll-holder.

Size 5 x 7, measures 5 x $9\frac{1}{4}$ x 7 inches, weighs $3\frac{1}{2}$ pounds, and holds three dry plate-holders or roll-holder.

Size $6\frac{1}{2}$ x $8\frac{1}{2}$, measures $6\frac{1}{4}$ x 11 x $8\frac{1}{4}$ inches, weighs $4\frac{1}{4}$ pounds, and holds three dry plate-holders or roll-holder.

Size 8 x 10, measures $10\frac{1}{2}$ x $6\frac{3}{4}$ x $12\frac{3}{4}$ inches, weighs 5 pounds, and holds three dry plate-holders or roll-holder.

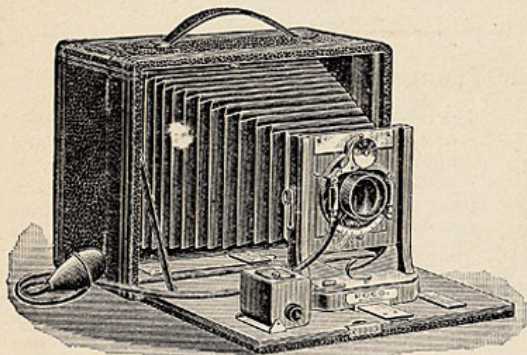
NOTE THE FACT that our Thornward Cameras, sizes 4 x 5 and 5 x 7, can be fitted with the new style roll-holder, in which is used the regular cartridge films.

See prices on page 4.

PRICES.

| | Size 4x5. | Size 5x7. | Size 6½x8½. | Size 8x10 |
|---|-----------|-----------|-------------|-----------|
| Complete, including lens, shutter, etc., and one double plate-holder..... | \$21.75 | \$28.00 | \$35.70 | \$ 42.50 |
| Extra, for wide angle lens..... | 7.00 | 9.00 | 13.50 | 16.00 |
| Without lens or shutter..... | 12.75 | 17.00 | 23.75 | 29.75 |
| With Zeiss Series IIA Lens and Bausch & Lomb diaphragm shutter..... | 56.75 | 72.00 | 80.75 | 105.95 |
| Double Plate-holders, each..... | .65 | .85 | 1.05 | 1.27 |
| Double Film-holders, each..... | 1.10 | 1.35 | 1.65 | 1.85 |
| Cartridge Roll-holders, empty, each..... | 4.75 | 6.00 | ..... | ..... |
| Leather Carrying Case, with shoulder strap ... | 2.15 | 2.55 | 2.95 | 3.60 |

The Thornward B.

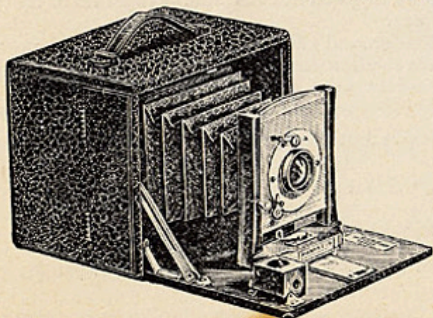


It is a modification of the style C, and is designed expressly for those amateurs who desire a high grade camera, but to whom the extra cost of the various adjustments embodied in the C is a serious objection. It is made in the same thorough workmanlike manner, the bed and other exposed woodwork being of beautifully polished mahogany, the metal parts of lacquered brass, the box is covered with fine grain leather, and bellows is of red morocco.

The box will carry four plate holders or roll holder. The Thornward B has single swing-back, two tripod plates, and full size ground glass screen for focusing. The lens is an extra rapid rectilinear, especially made for hand camera work. The shutter for the 4x5 and 5x7 is the B. & L. Unicum, and supplied with three movements, instantaneous, bulb and time. The instantaneous movement works automatically from 1/100 second to one second. Longer instantaneous exposures can be made as long or short as desired, one pressure on the bulb opening the shutter, which remains open until pressure on bulb is released. Time exposures are made by opening shutter with one pressure of the bulb, a second pressure closing same. Shutter is supplied with both rubber bulb and finger release, and works between the lenses without noise or jar. Either glass plates, cut films or roll films can be used. Size and weight is almost exactly the same as the style C, as are prices for extra plate holders, film holders, etc., the same.

- Thornward B. Size 4x5, as described, with one plate holder\$12.75
- Thornward B. Size 5x7, as described, with one plate holder. 21.00
- Thornward B. Size 6½x8½, with Wizard shutter and one plate holder 29.75

The Thornward A.

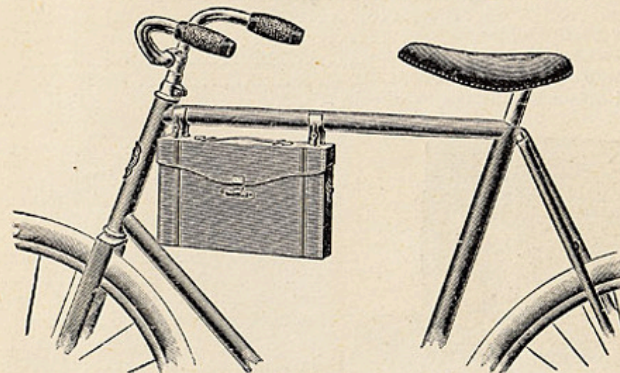


It is just as carefully made as the other styles of the Thornward, but is made without the swing back and rack and pinion. The exposed wood work is highly polished, and all metal parts are of lacquered brass. The box is covered with fine grain leather and is supplied with ground glass screen, hinged panel at back and two tripod plates, thus rendering instrument suitable for tripod viewing work as well as for the purposes of a hand camera. The bellows is of Russia leather, and the lens is a rapid rectilinear (double) made specially for this camera. The

shutter is a new silent pattern for both time and instantaneous exposures, supplied with finger release. In the Thornward A both glass plates and roll holder can be used.

To those in search of the best \$10.00 camera on the market we recommend the A. Size of box, 5x5¼x6⅞ inches; weight, 2¼ pounds. Made in size 4x5 only. Price of accessories are the same as for other styles of the Thornward.
Price\$10.00

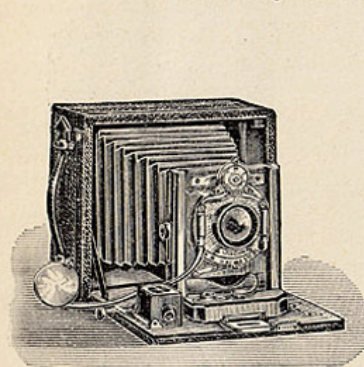
THE BABY THORNWARD CYCLE CAMERAS.



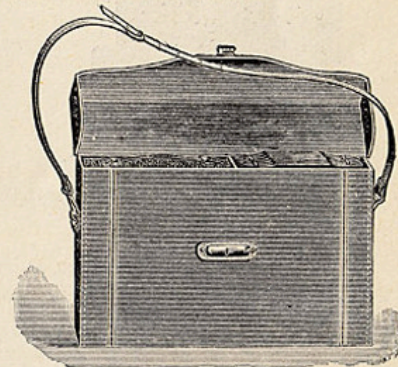
Showing Method of Carriage on the Wheel.

Cycle Cameras, as the name would indicate, were designed specially as a wheelman's companion, and as they are very light and compact and easily carried on the wheel, they are recommended as being an indispensable adjunct to the wheelman's outfit.

The Baby Thornward Camera No. 1.



Camera—Open.



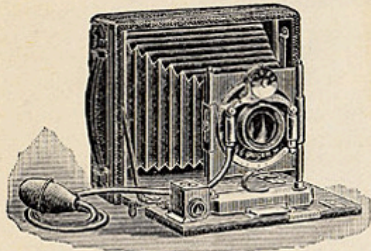
Camera—In Case.

Is designed to meet all requirements of one wanting a thoroughly up-to-date, compact camera, supplied with all adjustments. All wood parts are made of beautifully polished mahogany, the brass work is highly polished and lacquered, bellows is made of finest morocco, and box is covered with fine black grain leather. Camera is fitted with double swing back, swinging at centers. It has rising and double sliding front, rack and pinion for focusing, and reversing view finder and level combined. It is supplied with two tripod plates, and can be used in the hand, on the bicycle or on a tripod. A small panel is placed at the back, so that it can be easily opened, and the full sized ground glass screen used for focusing, when so desired. The shutter is the Bausch & Lomb Unicum, with bulb and tube, and adjusted for time, bulb and instantaneous exposures. The shutter works between the lenses, and works automatically from one second to 1/100 part of a second. The lens is our extra rapid rectilinear, made especially for hand camera work. The size 4x5 measures about 2⅞x5½x6 inches, and weighs but 30 ounces. See prices on page 6.

A handsome sole leather carrying case is furnished with each camera, the camera occupying one end and the roll holder or plate holders the other. The 4x5 size case will carry five plate holders or roll holder and one plate holder; other sizes, four plate holders or roll holder. The new Cartridge System Roll Holders are supplied in the 4x5 and 5x7 sizes.

PRICES.

| | Size 4x5 in. | Size 5x7 in. | Size 6½x8½ in. |
|--|-----------------|-----------------|-------------------|
| Complete, with Unicum Shutter, one plate holder and carrying case..... | \$21.25 | \$28.00 | \$35.75 |
| Double Dry Plate Holder..... | .65 | .85 | 1.05 |
| Cartridge System Roll Holder..... | 4.75 | 6.00 | ..... |
| Bicycle Clamp..... | .65 | .65 | .65 |
| Carrier, for attaching camera to wheel..... | .90 | .90 | .90 |

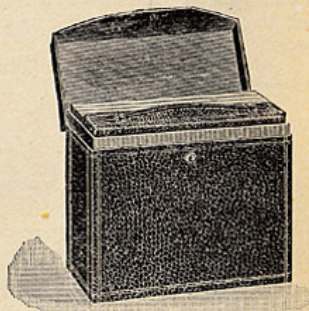
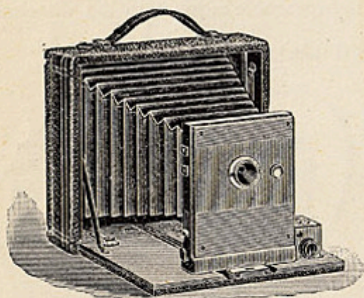


Baby Thornward No. 2.

This is a most popular instrument, being made in the same thorough manner as the No. 1, of same materials, and furnished with same kind of lens and shutter, but is without the rack and pinion and swing back. In other respects it is a duplicate of No. 1. Prices for accessories are the same as for No. 1.

| | 4x5 in. | 5x7 in. |
|------------|---------|---------|
| Price..... | \$17.00 | \$21.00 |

The Baby Thornward No. 3.



The Baby Thornward No. 3 is an entirely new style camera, and is a universal or fixed focus instrument. Its size is only 6x5¼x1½ inches, and weight one pound. It is made in the same thorough manner as all our regular goods, solid mahogany wood work, polished; all fittings and metal parts of brass polished and lacquered, bellows of selected red Russia leather, and covered outside with best morocco grain leather, with leather handle. It has a removable back, spring actuated ground glass screen, two tripod plates, and reversible view finder and level combined. The shutter is a Safety with speed regulator made in an improved form. The camera front is extended similar to the regular Cycle series, and when reaching its proper focusing distance it is secured by an automatic locking device holding it in position at exact focus. When the exposure is made it can be returned to position by simply pressing a button which acts as a release. The lens is our Crystal fixed focus, giving a great depth of focus and insuring perfect pictures at the edges as well as the center. It is applicable from two feet to any greater distance.

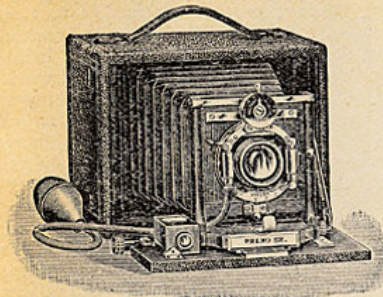
A carrying case accommodating the camera and three dry plate holders is furnished with each instrument.

PRICES.

| | 4x5 in. |
|---|---------|
| Camera complete, with Carrying Case and one Plate Holder..... | \$7.00 |
| Double Dry Plate Holders..... | .65 |
| Cartridge System Roll Holder..... | 4.70 |

THE PREMO FOLDING CAMERAS.

The Premo, Sr.

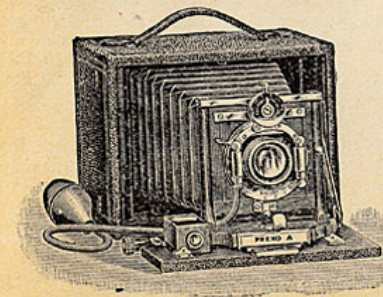


The Premo Sr. represents the highest type of the hand camera, possessing the latest adjustments and adapted for use for either the advanced worker or the novice in the art. It is made from selected mahogany, covered with fine black leather, and combines the essential features necessary for either hand or tripod work, in the most compact form; it is fitted with double swing back, double sliding front and rack and pinion for focusing. The double sliding front is an important feature for work in confined situations. There are two tripod

plates and a panel at the back for focusing, and a reversible view finder for upright or horizontal pictures. The lens is a rapid rectilinear, adapted for all classes of work. This lens may be removed from the shutter and a wide angle substituted when desired; the shutter is the improved Victor, with Iris Diaphragm of variable speeds, for both time and instantaneous exposures, fitted with pneumatic release; it works between the lenses without noise or jar. The Premo Sr. has a removable lens board, so that other lenses and shutters may be adapted if desired, and the ground glass screen is spring acting. Glass plates, cut and roll films may all be used; the plate holder is supplied with rubber slides. The roll holder is the latest pattern, fitted with automatic indicator for registering the number of exposures made. The change from glass plates to films is but the work of a moment, and as the roll holder is provided with a shield, it is not necessary to resort to a dark room. The size of the 4x5 Premo Sr. when closed is only 4½x5½x7 inches, including space for three double holders, and it weighs but 2¾ pounds

| | 3¼x4¼ in. | 4x5 in. | 5x7 in. | 6½x8½ in. |
|------------------------------------|--------------|--------------|--------------|--------------|
| Premo Sr. and 1 Plate Holder..... | \$25.50 | \$25.50 | \$34.00 | \$42.50 |
| Extra for Wide Angle Lens..... | | 9.00 | 10.80 | 13.50 |
| Cut Film Holders..... | 1.15 | 1.15 | 1.35 | 1.58 |
| Dry Plate Holders..... | .85 | .85 | 1.05 | 1.27 |
| Roll Holders, empty..... | 9.00 | 9.00 | 11.25 | 14.40 |
| Roll of Films..... | 60 exp. 2.50 | 48 exp. 3.00 | 32 exp. 4.00 | 24 exp. 4.00 |
| | | | 54 " 6.00 | 48 " 8.00 |
| Leather Covered Carrying Case..... | 2.25 | 2.25 | 2.70 | 3.00 |

The Premo A.



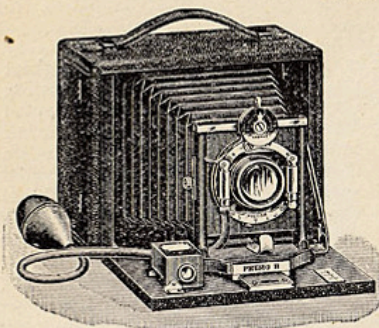
Identical with the Premo Sr., except that it is provided with single instead of double swing back, and with rising and falling front only, instead of double sliding front. Has rack and pinion. Designed especially for those amateurs who want a first-class hand camera, but who do not care to pay for the later improvements embodied in the Premo Sr. The Premo is made of the best materials, the box of mahogany, polished inside, and covered with handsome leather outside. The holder is the Premo double holder, with rubber slides. The camera will carry

three holders. The 4x5 size measures, when closed, 4½x5½x5½ inches, and weighs a trifle over two pounds. Use either glass plates, cut films or roll films. Prices on extra plate holders and other accessories are the same as for those of Premo Sr.

PRICES, including one Plate Holder.

| | 3¼x4¼ | 4x5 | 5x7 | 6½x8½ |
|------------|---------|---------|---------|---------|
| Size..... | | | | |
| Price..... | \$21.25 | \$21.25 | \$28.00 | \$38.25 |

The Premo B.

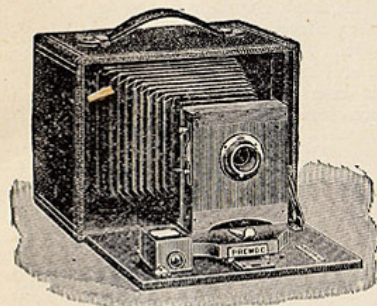


The Premo B is patterned closely after the Premo A. While not so highly finished, the same care is exercised in its construction. It is provided with central swing back and rising and falling front, adapting it for both hand and tripod work. It is fitted with the Victor (Iris diaphragm) shutter, and the Victor's single view or rapid rectilinear lens as may be preferred. The rapid rectilinear lens is precisely the same as fitted to the Premo A. A reversible view finder is fitted to the bed for both vertical and horizontal pictures; also two tripod plates for attaching the camera to a tripod. Glass plates, cut and roll films may all be used. Premo B will carry

three double plate-holders. The outside dimensions of 4x5 are only $4\frac{5}{8} \times 5\frac{5}{8} \times 5\frac{7}{8}$ inches, and the weight two pounds. It is handsomely covered with fine black leather, and has a leather handle for carrying. Prices of extra plate holders and other accessories are the same as for Premo Sr.

| | | |
|-------------------------------------|---------|---------|
| | 4x5 | 5x7 |
| Premo B, with one plate-holder..... | \$12.25 | \$19.55 |
| With rapid rectilinear lens | 17.00 | 25.50 |

The Premo C.

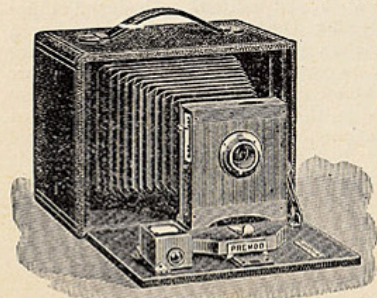


This camera is carefully made, and is exceedingly neat in appearance, being shellacked inside and covered with black leather outside. It is provided with swing back and sliding front. The back swings from the center. Premo C is fitted with single view or rapid rectilinear lens, as may be preferred. It has new safety shutter, a neat and effective device for all classes of work. The ground-glass screen is spring acting. A hinged panel at the back permits the full-sized image to be seen while focusing. Two tripod plates are fitted for using the camera as a regular view camera. The view finder is reversible for both upright and horizontal pictures.

Glass plates, cut and roll films may all be used. Dimensions are the same as style B, and prices of extra plate holders, accessories, etc., the same as for the Sr. A, B, etc.

| | | |
|-------------------------------------|---------|---------|
| | 4x5 in. | 5x7 in. |
| Premo C, with one plate holder..... | \$10.20 | \$17.00 |
| Premo C, with rectilinear lens..... | 14.45 | 23.80 |

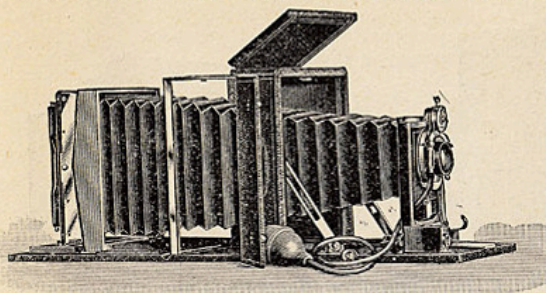
The Premo D.



The style of Premo is like style C, except it is without the swing back and spring actuated ground-glass screen. The same shutter and lenses are used as on style C. Premo D, 4x5 when closed measures $5\frac{1}{4} \times 5\frac{1}{4} \times 6\frac{3}{4}$ inches, weighs only two pounds, and will hold three plate-holders, or roll-holder. The Premo D is a thoroughly practical camera, and will fully meet the demands of a large class of amateurs. Glass plates, cut and roll films may be used. Prices on extra plate-holders, accessories, etc., are the same as for Premo's Sr. A, B, etc.

| | | |
|-------------------------------------|---------|---------|
| | 4x5 in. | 5x7 in. |
| Premo D, with one plate holder..... | \$ 8.50 | \$15.30 |
| With rapid rectilinear lens..... | 12.75 | 22.10 |

The Long Focus Reversible Back Premo.



Is built in the same substantial manner as the Premo Sr. It possesses an extra length of bellows, adapting it for copying, reducing and enlarging, and for use with lenses of extra long focus, as well as the usual style, and being supplied with reversing back the position of the plate can be instantly changed from

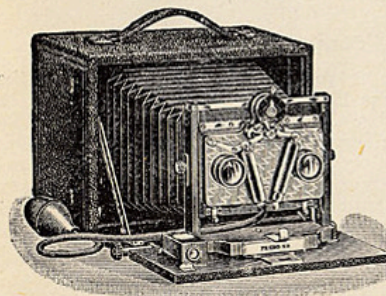
a horizontal to a vertical position or vice versa, without moving the camera itself, When not fully extended the Long Focus Premo is similar in appearance to the Premo Sr., and though but a trifle larger, it has double the focal capacity.

The extra length of both is obtained by the addition of a folding back. By touching a spring at the top, the back of the camera will drop, forming a bed, upon which the rear portion of the camera carrying the ground-glass screen will slide. A glance at the illustration above will convey the idea.

The lens is the Victor Rapid Rectilinear. Being symmetrical the front combination may be removed and the rear lens used for long-distance work. The Long Focus has all the adjustments and is fitted with the same kind of lens and shutter as the Premo Sr. Price of dry plate holders and other accessories are the same as for the Premo Sr.

| | | | | |
|---|-------------|------------|--|-------------|
| | 4x5 in. | 5x7 in. | $6\frac{1}{2} \times 8\frac{1}{2}$ in. | 8x10 in. |
| Focal capacity or length of bellows..... | 17½ inches. | 23 inches. | 29 inches. | 33½ inches. |
| The price includes the camera, lens, shutter and double plate holder. | | | | |
| | 4x5 in. | 5x7 in. | $6\frac{1}{2} \times 8\frac{1}{2}$ in. | 8x10 in. |
| Price, Long Focus R. B. Premo, with 1 plate holder..... | \$34.00 | \$42.50 | \$52.75 | \$61.25 |
| Wide Angle Lens, extra..... | 9.00 | 10.20 | 13.50 | 16.20 |

The Stereoscopic Premo.

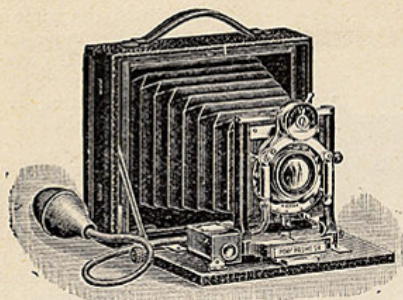


Stereoscopic Photography is one of the most interesting and fascinating branches of the art. We can furnish both the Premo A and the Premo Sr., in 5x7 and $6\frac{1}{2} \times 8\frac{1}{2}$ sizes, arranged for stereo work. The stereo lenses are a matched pair of 4x5 rapid rectilinear lenses and fitted with Bausch & Lomb Stereo Shutter. The shutter is designed especially for use with stereoscopic lenses. The action is so perfect that absolutely the same amount of light is admitted through both lenses. Revolving diaphragms are provided for stops. The speed may be regulated at will, the shutter working automatically from three seconds to one one-

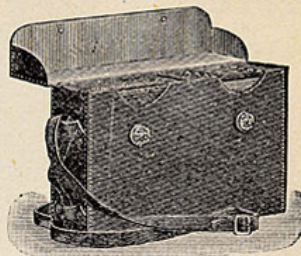
hundredth part of a second. Time exposures of any desired length may be made by adjusting the time lever. Both finger and pneumatic release are attached. The regular lens and shutter and the stereo lenses are on different lens boards, so that the change from regular full sized views to stereo work is but the work of a few seconds. The price includes the rapid rectilinear lens and Victor shutter for full sized views, and the stereo lenses and shutter, together with a division in the camera. Wide angle lenses may be used for full size views, same as with the regular Premo. Prices of extra plate holders, accessories, etc., are the same as for Premo Sr.

| | | |
|--|---------|--|
| | 5x7 in. | $6\frac{1}{2} \times 8\frac{1}{2}$ in. |
| Stereo Premo, with one Premo plate holder..... | \$59.50 | \$68.00 |
| Stereo Premo Sr., with one Premo plate holder..... | 63.75 | 72.25 |
| Extra for Wide Angle Lens..... | 10.20 | 12.75 |

The Pony Premo, Sr.



Open.

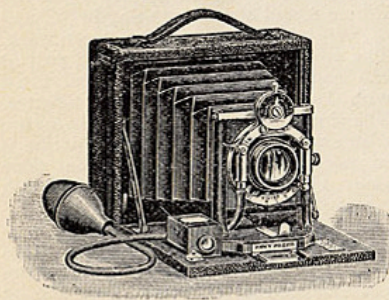


In Case.

An extra small, light-weight camera, the 4x5 measuring when closed $5\frac{3}{4} \times 6\frac{3}{4} \times 2\frac{3}{8}$ inches, and weighing about $3\frac{1}{4}$ ounces. Made of seasoned mahogany, covered with fine black leather. Furnished with double swing back, rack and pinion for focusing, double sliding front, brilliant view finder, reversible, ground glass screen, and two tripod plates. The camera is furnished with the Victor Rapid Rectilinear Lens and Victor Iris Diaphragm Shutter, and is suitable for either snap shots or time exposures. Either dry plates, cut films or roll of film in roll holder may be used. It is furnished with a neat leather case, which will hold the camera, lens, shutter, three plate holders or roll holder, and may be carried by the shoulder strap or attached to the frame of a bicycle in the same manner as a tool bag. The price includes camera, lens, shutter, one double plate holder, and leather case with strap.

| | Size 4x5 in. | Size 5x7 in. | Size $6\frac{1}{2} \times 8\frac{1}{2}$ in. |
|---------------------------|-----------------|-----------------|--|
| Pony Premo Sr. | \$22.75 | \$32.25 | \$40.00 |
| Extra Plate Holders. | 9.00 | 10.80 | 13.50 |
| Cut Film Holder. | .85 | 1.05 | 1.27 |
| Roll Holder, empty. | 9.00 | 11.25 | 14.40 |
| | 48 exp. | 32 exp. | 24 exp. |
| Roll of Film. | 3.00 | 4.00 | 4.00 |

The Pony Premo.



Same construction, appearance, etc., as the Pony Premo Sr., but is without the rack and pinion and double swing back, while the front board has the rising and falling motion, but not the sidewise. Made especially for those who desire the camera without the adjustments of the Sr. The price includes leather case and plate holder. Price of accessories same as for the Sr.

Price, with one plate holder and carrying case, size $3\frac{1}{4} \times 4\frac{1}{4}$ \$18.50
 Price, with one plate holder and carrying case, size 4x5 18.70

Two of a Kind—A Camera and a Bicycle

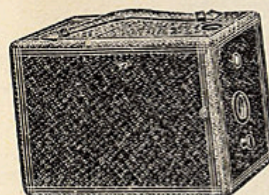
They very properly belong together. Our \$25.00 High Grade Wheel is the greatest bargain of the year. Ask us to send you a Bicycle Catalogue free,

THE THORNWARD DANDY HAND CAMERAS.

Made Specially for Montgomery Ward & Co.
 Use Glass Plates Only.

The unqualified success of the size $3\frac{1}{4} \times 4\frac{1}{4}$ Dandy Camera that we placed upon the market last season has induced us to manufacture for this year's business a complete line of these excellent instruments. This line is described in the following quotations, and we assure the amateur photographer that whatever size he may select as being best adapted to his needs, he is sure to secure just what the name of the camera indicates—a Dandy.

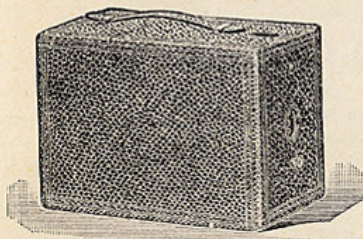
The Thornward Dandy No. 1.



Uses glass plates only, and makes a picture $2\frac{1}{2} \times 2\frac{1}{2}$ inches. This is a well made and handsome little instrument, made to supply the demand for a good camera for making small pictures at a reasonable price. It is fitted with a fine achromatic lens, view finder and rotary shutter, and is suitable for both time and instantaneous exposures. The size of box is $5\frac{1}{2} \times 3\frac{1}{2} \times 3\frac{1}{2}$, weighs 8 ounces, and has a capacity of six single plate holders. Covered with fine black leather.

Price \$2.00
 Extra single Plate Holders (metal)25

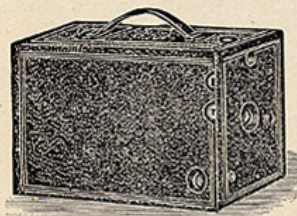
The Thornward Dandy No. 2.



Uses glass plates only, and makes a picture $3\frac{1}{2} \times 3\frac{1}{2}$ inches. Box measures $4\frac{1}{2} \times 5\frac{1}{2} \times 7$ inches, and weighs but 15 ounces. It is covered with fine black leather, and has a capacity of three double plate holders (six plates). Camera is supplied with tripod plate, so that it can be used on a tripod if desired, and a view finder for snap shot work. The shutter is for both time and instantaneous exposures. The camera has no complicated adjustments, and can be manipulated with ease by the veriest novice.

Price \$3.00
 Extra Plate Holders, each65

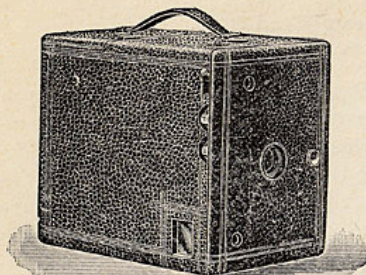
The Thornward Dandy No. 3.



Uses glass plates only, and makes a picture $3\frac{1}{4} \times 4\frac{1}{4}$ inches. Box is covered with fine morocco, and supplied with socket for use on tripod and two view finders for snap shots. The lens is our single achromatic of universal focus and great definition. The shutter is a Safety, and is simple in construction, for both time and instantaneous exposures. Camera carries three double plate holders, with a capacity of six plates. We wish to call attention to the fact that this Dandy uses a standard size plate, procurable at any stock house, and is a favorite with those making negatives from which lantern slides are made direct.

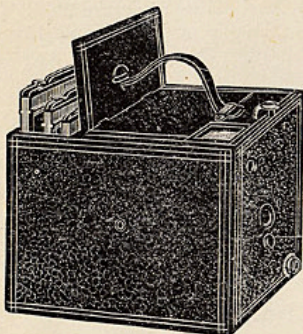
Price, the Dandy, with one Plate Holder \$3.50
 Extra Double Plate Holders65

The Thornward Dandy No. 4.



Uses glass plates only. Makes rectangular pictures 4x5 inches—the favorite size. This Dandy is furnished with fine achromatic lens that covers the plate to the extreme edges; two view finders for horizontal and vertical pictures; two tripod plates, so that it can be used on tripod if desired, and a set of stops. The shutter is an ingenious device, having variable speeds, and can be adjusted for both time and instantaneous exposures. The box measures about 5¼x7x8 inches, and is exceedingly handsome in appearance, being covered with fine black leather. The price is by far the lowest at which a 4x5 camera of anything like the value of the Dandy has ever been sold.

Price, including one double plate holder\$4.00
Extra double plate holders, each..... .65



The Thornward Dandy No. 5.

Uses glass plates only, and makes pictures 4x5 inches. It is similar in general appearance to the No. 4, is of about same size, but is fitted with a rapid rectilinear (double combination) lens. The only camera on the market fitted with a rectilinear lens sold at so low a price.

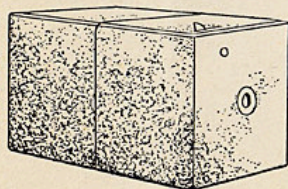
Price, with one double plate holder\$4.75
Extra plate holders, each65

MINIATURE HAND CAMERAS.

For glass plates only.

While we do not claim that as good work can be done with these as with larger, better and higher priced instruments, yet they make surprisingly good pictures, and are a boon to those who do not care to invest much money in a camera, as well as to the amateur just beginning his photographic education.

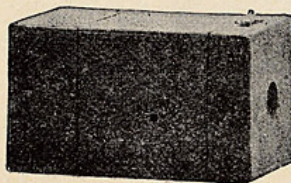
M. W. & Co.'s Klondike Camera Equipment.



Is a neat little instrument covered with black cloth and measuring 2¼x2¼x3½ inches. Fitted with an achromatic lens and practical shutter. Makes a picture 2x2 inches. The equipment includes, in addition to the camera, a package of dry plates and a complete miniature developing and printing outfit, trays, chemicals, full instructions, etc. A marvel of cheapness.

Price, equipment complete.....\$0.50

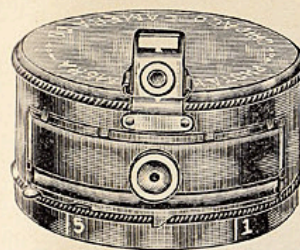
The Zar Pocket Camera.



Is a practical instrument at a nominal cost. It uses 2x2 inch dry plates, and can be used for both time and instantaneous exposures. The camera is furnished with a good lens that will make excellent pictures. Size of camera, 2¼x3¼x3¼ inches. Weight, 4 ounces.

Price, including 6 dry plates.....\$0.65

The Photake.



Uses glass plates only. Strongly made of seamless brass, handsomely oxidized, circular in shape, the diameter being 4 inches, depth, 2¼ inches. Provided with a view finder. Has a capacity of 5 plates without reloading, and makes a picture 2¼x2¼ inches. Suitable for either snap shot or time exposures, and is a thoroughly practical miniature camera.

Price, including 6 dry plates, developing and fixing chemicals, blue print paper, ruby paper and book of instructions.....\$1.75
Extra dry plates, per dozen..... .15

EXTRAS FOR MINIATURE CAMERAS.

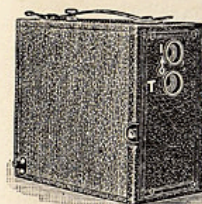
State what Cameras Extras are wanted for.

Mantello Card Mounts, per package of 25.....\$0.12
Dry Plates, per dozen..... .15
Printing Frames, each..... .20
Printing Paper, per 2 dozen..... .10
Changing Bags, each..... .25

MAGAZINE CAMERAS.

Manufacturers of photographic apparatus have directed their efforts for years to the production of a magazine camera that could be guaranteed to be thoroughly practical, would be compact, and that could be sold at a popular price. These points have all been accomplished in the Cyclone Magazine Cameras that we now place upon the market.

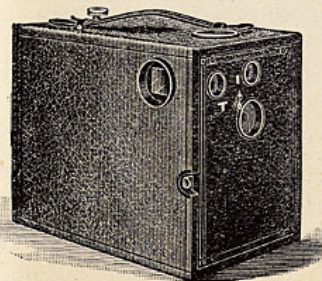
Cyclone Magazine Camera No. 1.



Makes pictures 2½x2½ inches. Capacity, 12 plates without reloading. Size, 3x5¼x5¾ inches. Weight, 22 ounces. Produces pictures 2½x2½ inches and is a handsome little box, being covered with black grain leather and supplied with handle. The lens is a single achromatic of universal focus. The shutter is self-setting and of the safety pattern. The cut of the No. 3 illustrates the interior or magazine of the camera. When 12 exposures have been made, it is necessary only to open the back of the camera and take out the magazine which carries the 12 plates with it.

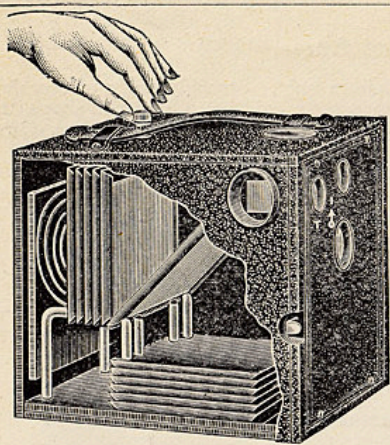
Price, including 12 plate holders.....\$3.50

Cyclone Magazine Camera No. 2.



Makes pictures 3¼x4¼ inches. Capacity, 12 exposures without reloading. Size, 5x6¼x7½ inches. Weight, 45 ounces. The description of the No. 1 will answer for this camera, excepting that the No. 2 makes a picture 3¼x4¼, and is for that reason more desirable. The lens is of universal focus, and cuts the plate to the edges. The shutter is a self-acting safety.

Price, including 12 plate holders.....\$6.00



**Cyclone Magazine Camera
No. 3.**

Makes pictures 4x5 inches. Capacity, 12 exposures without reloading. Size, 5 3/4 x 7 x 8 inches. Weight, 62 ounces.

In construction and general appearance this camera is a duplicate of Nos. 1 and 2, except that it makes 4x5 pictures and that the lens is of special design. The increased size of the picture is a feature that will be appreciated by the advanced amateur.

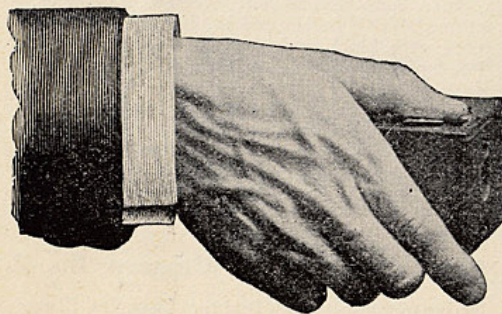
Price, including 12 plate holders. \$10.00

CARTRIDGE SYSTEM CAMERAS.

Under this heading are listed those instruments ordinarily known as "Daylight Cameras." They are the latest form of the popular hand camera, and in these are used roll film (cartridges) so protected that the camera can be loaded in broad daylight, no dark room being necessary for the purpose. By their use the difficulty of reloading the camera is reduced to the minimum, and their great popularity attests the appreciation in which they are held by those amateurs who seek a camera that will give them the best results and the least trouble.

It is a well advertised statement that the Eastman Cartridge Cameras cannot be sold by any one at a less price than the manufacturer's published list. Heretofore this statement has been true, but we are now prepared to supply our patrons with these well known and excellent instruments at considerably lower prices than they have ever been sold for. To the following prices we invite careful attention and comparison with those of any stock house in America.

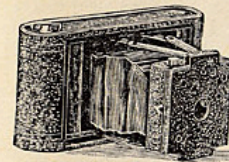
The Eastman Pocket Kodak.



Is not a toy, but a practical camera that will do everything that a larger one will do, but on a smaller scale. It measures 2 1/4 x 2 7/8 x 3 7/8 inches, weighs 5 ounces; makes a picture 1 1/2 x 2 inches, and can be carried in the pocket. It uses either roll films or glass plates, having a capacity for films of twelve exposures, and can be used for either snap shot or time exposures. It is covered with fine seal leather and in appearance is neat and handsome.

| | Manufacturer's Price. | Our Price. |
|---|-----------------------|------------|
| Pocket Kodak, with 1 roll film, 12 exposures. | \$5.00 | \$3.75 |
| Leather Carrying Case. | .75 | .65 |
| P. K. Film Cartridges, 12 exposures. | .25 | .22 |
| P. K. Plate Holders. | .25 | .22 |
| P. K. Dry Plates, per dozen. | .20 | .18 |
| Eastman A, B, C, Developing and Printing Outfit. | 1.50 | 1.20 |
| Thornward Printing and Developing Outfit, much better, larger and more complete. | | 2.50 |

Folding Pocket Kodak.

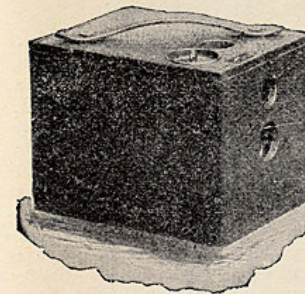


For rectangular pictures 2 1/4 x 3 1/4 inches. Capacity, 12 exposures without reloading. Size of kodak, 1 1/2 x 3 1/2 x 6 3/4 inches. Weight, 10 ounces. Length of focus of lens, 4 inches. This kodak, though but 1 1/2 inches in thickness and so light as hardly to be noticed when carried in the pocket, is in every way a complete camera. The lenses used in these instruments are specially ground, are achromatic, have a fixed focus of 4 inches, and cover the plate clear and sharp to the corners. The shutter is entirely new and is

always set, and is suitable for both time and instantaneous exposures. A pressure on another lever opens the shutter for time exposure, while a second pressure closes it. Camera has a set of three stops, and is equipped with two view finders, one for vertical and one for horizontal exposures. It is made of aluminum covered with black morocco.

| | Manufacturer's Price. | Our Price. |
|---|-----------------------|------------|
| Folding Pocket Kodak, with achromatic lens, not loaded. | \$10.00 | \$8.00 |
| Light-proof Film Cartridge, 12 exposures, 2 1/4 x 3 1/4. | .40 | .36 |
| Black Sole Leather Carrying Case. | 1.25 | 1.10 |
| Complete A, B, C, Developing and Printing Outfit. | 1.50 | 1.20 |

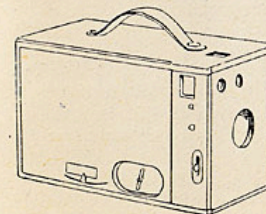
The Eastman Improved Bull's Eye No. 2—Latest Model.



Uses film cartridges only, and makes square pictures 3 1/2 x 3 1/2 inches. Capacity, 18 exposures without reloading. Size of camera, 4 1/2 x 4 1/2 x 5 3/4 inches. Weight, 18 ounces. The Bull's Eye No. 2 is fitted with a fine achromatic lens, set of three stops, socket for tripod, screw and improved rotary shutter for time and instantaneous exposures. This camera is made on the cartridge system, and can be loaded and unloaded in broad daylight. Handsomely finished and covered with fine grain leather.

| | Manufacturer's Price. | Our Price. |
|---|-----------------------|------------|
| Improved Bull's Eye No. 2. | \$8.00 | \$6.40 |
| Film Cartridges, 12 exposures. | .60 | .55 |
| Black Leather Carrying Case. | 1.25 | 1.10 |
| Eastman A, B, C Developing and Printing Outfit. | 1.50 | 1.20 |
| Thornward Developing and Printing Outfit, much larger and more complete. | | 3.00 |

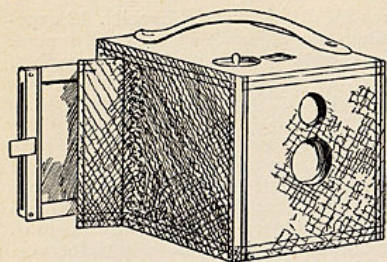
The Eastman Improved Bull's Eye No. 4—Latest Model.



Uses film cartridges only, and makes rectangular pictures 4x5 inches. Size of camera, 4 7/8 x 5 7/8 x 9 1/4 inches. Weight, 34 ounces. Capacity, 12 exposures without reloading. It is provided with an achromatic lens of superior quality, a set of three stops, both horizontal and vertical view finders, improved rotary shutter for both snap shot and time exposures, and a carefully and correctly adjusted focusing scale. Being a cartridge system camera, it can be loaded and unloaded in daylight. Handsomely finished and covered with grain leather.

| | Manufacturer's Price. | Our Price. |
|---|-----------------------|------------|
| Improved Bull's Eye No. 4. | \$12.00 | \$9.60 |
| Film Cartridges, 12 exposures. | .90 | .81 |
| Black Leather Carrying Case. | 2.00 | 1.75 |
| Eastman A, B, C, Developing and Printing Outfit. | 1.50 | 1.20 |
| Thornward Developing and Printing Outfit, much larger, better and more complete. | | 3.40 |

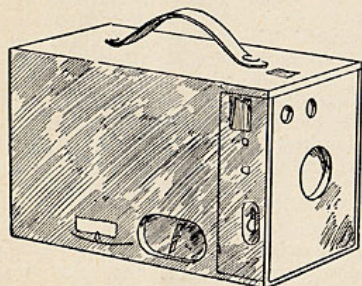
Eastman Improved No. 2 Bullet—Latest Model.



Uses both film cartridges and glass plates, and makes square pictures $3\frac{1}{2} \times 3\frac{1}{2}$ inches. Capacity, 12 exposures (films) without reloading. Size of camera, $4\frac{1}{2} \times 4\frac{1}{2} \times 6$ inches. Weight, 20 ounces. The Improved Bullet No. 2 is fitted with fine achromatic lens, three stops, square view finder, socket for tripod screw, and improved rotary shutter, for snap shot and time exposures. When plates are used in this bullet the picture made is $3\frac{1}{4} \times 3\frac{1}{2}$ inches in size. It is made on the cartridge system, and is handsomely covered with black leather.

| | Manufacturer's Price. | Our Price. |
|--|-----------------------|------------|
| Improved No. 2 Bullet..... | \$10.00 | \$8.00 |
| Film Cartridges, 12 exposures..... | .60 | .55 |
| Single Plate Holders..... | .60 | .50 |
| Glass Plates, $3\frac{1}{4} \times 3\frac{1}{2}$ inches, per dozen..... | .35 | .25 |
| Black Leather Carrying Case..... | 1.25 | 1.10 |
| Eastman A, B, C, Developing and Printing Outfit..... | 1.50 | 1.20 |
| Thornward Developing and Printing Outfit, much better, larger and more complete..... | | 3.00 |

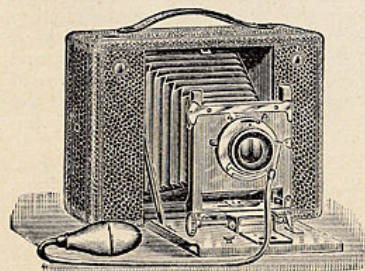
The Eastman Improved No. 4 Bullet—Latest Model.



Uses films, cartridges and glass plates. Makes rectangular pictures, 4×5 inches. Capacity, 12 exposures (film) without reloading. Size of camera, $4\frac{7}{8} \times 5\frac{7}{8} \times 9\frac{1}{4}$ inches. Weight, 34 ounces. This Bullet has all the improvements and adjustments of the No. 4 Bull's-Eye, with the additional advantage that with it glass plates can be used as well as film. Like all the other cartridge system cameras, it is handsome in appearance and is covered with black grain leather. Price includes a ground glass screen for focusing.

| | Manufacturer's Price. | Our Price. |
|--|-----------------------|------------|
| Improved Bullet No. 4..... | \$15.00 | \$12.00 |
| Film Cartridges, 12 exposures..... | .90 | .81 |
| Single Plate Holders, 4×5 inches..... | .75 | .65 |
| Black Leather Carrying Case..... | 2.00 | 1.75 |
| Eastman A, B, C, Developing and Printing Outfit..... | 1.50 | 1.20 |
| Thornward Developing and Printing Outfit, much more complete, larger and better..... | | 3.40 |

The Eastman No. 4 Cartridge Kodak—Latest Model.



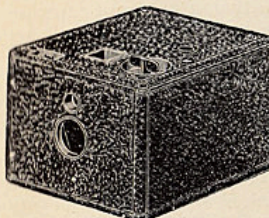
Cartridge Kodak—Open.

For rectangular pictures, 4×5 inches. Capacity, 12 exposures without reloading. Size of camera, $3\frac{1}{8} \times 6\frac{3}{8} \times 8\frac{1}{4}$ inches. Weight, loaded, 2 pounds 12 ounces. In the Cartridge Kodak the film cartridge system has been adapted to a folding kodak of fine quality and great capabilities. It is the only folding camera having the daylight loading feature. The Cartridge Kodak uses either daylight loading film cartridges or glass plates, is fitted with carefully tested rapid rectilinear lenses and pneumatic release shutter fitted with iris diaphragm stop. This

shutter has three speeds, instantaneous, time and bulb. It may be operated by the finger trigger instead of the bulb when so desired. The Cartridge Kodak is provided with a rising, sliding and falling front, two view finders, one for vertical and one for horizontal exposures, two sockets for tripod screws, and is equally perfect as a hand or as a tripod camera. It has an index for focusing, and when used with plates may be focused on the ground glass if desired. The plate adapter is simple and compact and can be put in place or removed in a short time. The finish is rich and beautiful, the wood parts being of highly polished mahogany with brass fittings, and the covering fine morocco.

| | Manufacturer's Price. | Our Price. |
|---|-----------------------|------------|
| No. 4 Cartridge Kodak..... | \$25.00 | \$20.00 |
| Film Cartridge, 12 exposures (5×4 inches)..... | .90 | .81 |
| Black Leather Carrying Case..... | 2.00 | 1.75 |
| Glass Plate Adapter, with ground glass..... | 2.50 | 2.25 |
| Eastman A, B, C, Developing and Printing Outfit..... | 1.50 | 1.20 |
| Thornward Developing and Printing Outfit, much larger, finer and more complete..... | | 3.40 |

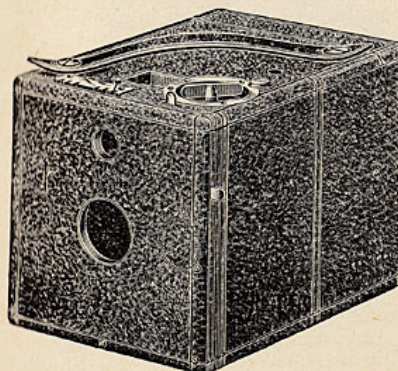
The Baby Hawk-Eye.



Dimensions, $2\frac{1}{2} \times 3\frac{1}{2} \times 4$ inches. Weight, 7 ounces. Capacity, 12 exposures. Size of photo, $2 \times 2\frac{1}{2}$ inches. The Baby Hawk-Eye has been designed for those who do not care to be encumbered with a larger camera. The improvements and advantages of larger cameras are furnished, including a brilliant finder and automatic tally which always show when an exposure is made. The shutter is so constructed that the length of an exposure can be varied as to time, which is the means of obtaining good results, even when light is weak.

The finder is shaped the same as the picture, thus enabling the operator to tell what will be produced. The lens is a single achromatic of set focus and fine quality, and camera is covered with black grain leather, making a neat and handsome appearance. The Baby Hawk-Eye, with 1 film cartridge..... \$4.50
Leather Carrying Case, with strap..... .90
Thornward Developing and Printing Outfit..... 2.60
Film Cartridges, 12 exposures, each..... .36

The Hawk-Eye, Jr., Camera.



Dimensions, $4\frac{1}{4} \times 4\frac{1}{2} \times 6$ inches. Weight, 20 ounces. Capacity, 25 exposures. Size of photo, $3\frac{1}{2} \times 3\frac{1}{2}$ inches. A camera so constructed that either glass plates or roll film can be used without any attachment other than a plate holder. The lens is a single achromatic of set focus, very rapid and capable of doing good work indoors as well as in the open air. The shutter is the latest improved for both time and instantaneous work, and so constructed that when making snapshots the speed can be regulated to properly time the negative, even though the light be very weak. The automatic tally for indicating the number of exposures made is thoroughly reliable. The extra brilliant square finder reflects the object distinctly and centers the view accurately upon

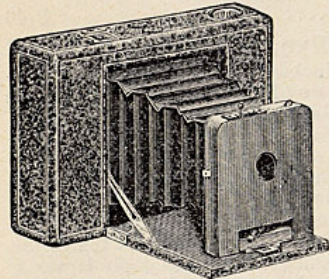
the surface of the film or plate. The covering of the box is the best grain leather, and everything pertaining to the camera is easy of operation and of handsome appearance. Hawk-Eye, Jr., Camera..... \$7.20
Double Dry Plate Holders, each..... .85
Sunlight Film Cartridges' 12 exposures, each..... .55
Sunlight Film Cartridges' 25 exposures, each..... 1.10
Dry Plates, size $3\frac{1}{4} \times 3\frac{1}{4}$ inches, per dozen..... .25
Complete Developing and Printing Outfit..... 3.00
Leather Carrying Case, with strap..... 1.25

The 4x5 Hawk-Eye, Jr.

For roll film or glass plates. The design of this camera is similar to that of the smaller Hawk-Eye, Jr., although different in some respects. The lens is of the same high quality, and is arranged with a focusing lever and scale. Both vertical and horizontal finders, interior ground glass screen, automatic registering tally, showing number of exposures made, and a tripod plate for time work is provided. The 4x5-inch Hawk-Eye, Jr., supplies the demand for a compact camera at a moderate price, in which both films and dry plates can be used. The shutter is operated for either time or instantaneous exposures, and method of setting same is simple. This camera, like the smaller sizes, uses the sunlight film, and can be loaded and unloaded in broad daylight.

Hawk-Eye, Jr., 4x5 inch.....\$13.50
 Double Dry Plate Holders, each......85
 4x5-inch Sunlight Film Cartridges, 12 exposures, each......77
 4x5-inch Sunlight Film Cartridges, 18 exposures, each......1.13
 Thornward Complete Developing and Printing Outfit......3.40
 Carrying Case, with strap......2.00

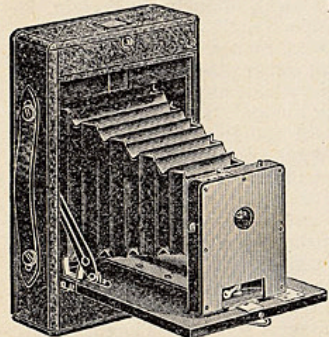
The Tourist Hawk-Eye.



In constructing this Hawk-Eye, the aim has been to produce a camera making a picture of good size, and still of dimensions that will permit carrying in the pocket. The lens used is an achromatic set focus, and guaranteed to cover the field under any conditions. The shutter is a simple, reliable piece of mechanism, so constructed that any amount of jarring will not affect its working qualities; can be regulated for different speed, and also has a time device allowing any length of exposure required. A set of three stops is also provided, and the finder is extra brilliant, showing the object very plainly. The new device for measuring film makes it impossible for mistakes to occur, and the registering tally always shows the exact number of exposures made. The covering is of the finest morocco grain leather, and the workmanship throughout is of the very best. This camera can be carried safely on the wheel, the same as an ordinary tool-bag. It will also be found a convenient outfit for the traveler, as it loads in daylight; is very compact.

The Tourist Hawk-Eye, not loaded.....\$8.00
 Special Sunlight Film, 12 exposures..\$0.55 | Black Sole Leather Carrying Case. 1.35

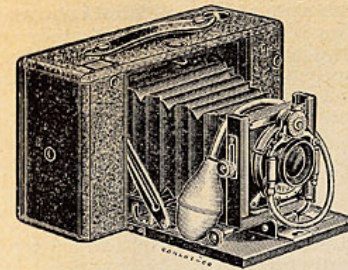
The 4x5 Tourist Hawk-Eye.



For those who prefer a photo as large in size as 4 x 5 inches, we have designed the 4 x 5 Tourist Hawk-Eye. The lens supplied is a single achromatic of superior quality, with a length of focus sufficient for producing first-class negatives under any conditions. The shutter is of rotary design, fitted with different speed for instantaneous work, and also has a time device for exposures of any length required. A set of three stops is furnished for reducing or enlarging the size of the lens aperture. Both vertical and horizontal finders, and a tripod plate for time work are provided. This camera is covered with black morocco grain leather, and like the smaller size, is fitted with our new device for measuring the film; has a registering tally, and can also be loaded and unloaded with our special sunlight film, without the use of a dark room. Should it be found advisable at any time to use glass plates, an attachment can be supplied with one double holder, which is fitted interchangeably with the back cover. This camera, without any question, is the smallest in existence for the size of photo, and will be found a desirable outfit for those who wish something reliable and compact.

The 4 x 5 Tourist Hawk-Eye.....\$13.25
 Special Sunlight Film, 12 exposures..\$0.77 | Leather Carrying Case, with strap. 2.00
 Plate Attachment, 1 double holder... 2.25 | Extra Holders, for dry plates.... .85

The Special Tourist Hawk-Eye.



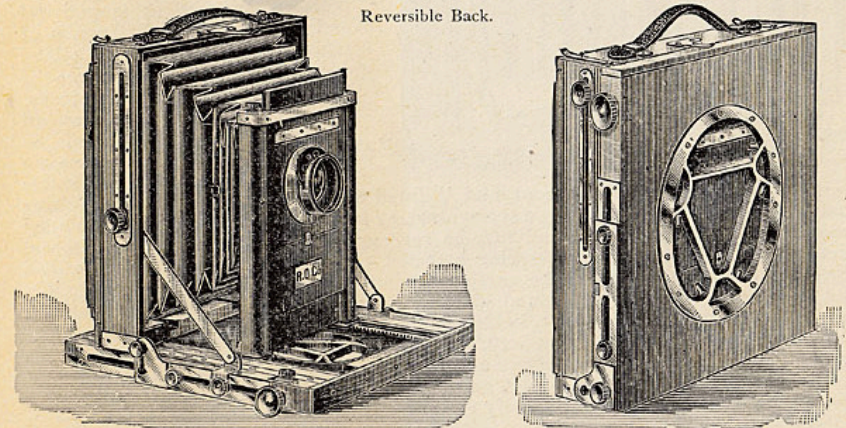
This camera, in construction and finish, surpasses anything ever before offered to the public, and for beauty and durability has no equal. The covering is of the best morocco finish leather, the wood parts of mahogany, French polish, and the trimmings of hand-finished lacquered brass. The lens is a high grade double rapid rectilinear, capable of doing first-class work, either indoors or in the open air. This lens is fitted to a removable board, and allows any make of lens of ordinary focus to be adjusted without extra charge. The shutter is the latest improved Unicum, with Iris diaphragm, and so constructed that by turning a small disk the speed can be regulated from $\frac{1}{100}$ of a second to any length of time required, and exposures can be made with rubber bulb or finger release. Two tripod plates and both vertical and horizontal finders are provided. This Hawk-Eye has a rack and pinion movement for fine focusing, also rising and falling front, which can be used to advantage for architectural work. As furnished, this camera is arranged for film, and can be loaded and unloaded in broad daylight. An attachment for dry plates can be supplied, if desired, which is interchangeable with the back cover of the camera.

The Special Tourist Hawk-Eye.....\$22.50
 The Special Tourist Hawk-Eye, no lens..... 13.75
 Special Sunlight Film, 12 exposures, 4x5......77
 Leather Carrying Case, with strap......2.00
 Plate Attachment, with one double holder......2.25
 Extra Holders, for dry plates......85

VIEW CAMERAS.

View Cameras are not suitable for making Ferrotypes (tintype pictures), this line of photographic work requiring camera and lenses of special construction. (See quotations under heading: Ferrotypes Cameras and Outfits.)
 A View Camera of any size can always be used for making smaller pictures by using inside kits in the plate holder.

The Carlton Camera.



The Carlton Camera is one of the most compact cameras in the market, the 5x8 being $2\frac{3}{4}$ inches thick when folded, and weighs but $5\frac{3}{4}$ pounds. It has extra long bellows, the 5x8 having a focal capacity of 19 inches; the use of lenses of extreme length of focus, while wide angle lenses can also be used. Owing to the extra length of bellows the camera can be used for copying and enlarging, if desired. It is made

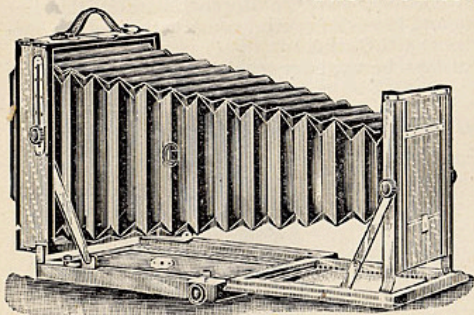
from selected mahogany, finished in the best possible style and has all latest improvements. The back is reversible, so that when a view is wanted either horizontally or vertically on the plate, the change can be effected by simply reversing the back. The ground-glass frame is held to the camera back by springs, which allow it to recede so as to insert the holder between the ground-glass and camera back.

Forward Movement of Camera Back.—When lenses of extreme width of angle are employed on the compact form of camera, it sometimes happens that a portion of the bed is included in the picture. To prevent this, the back of the Carlton can be moved forward, thus allowing the focus to be obtained with the lens entirely out of range of the bed. Of course this improvement is only required with lenses of shortest focus, or "extreme angle," as the ordinary wide angle lens can be used without it.

No Loose Top for Tripod.—The bed of the Carlton carries its own tripod top, adapted to our combination tripod. The top is neatly fitted in the bed and revolves easily, permitting the operator to adjust the camera in any direction. All Carlton Cameras have double swing back. Price includes one mahogany perfection holder, with rubber slides, mahogany combination, tripod and canvas case, but no lens. The Carlton Cameras in sizes to 8x10 inclusive, are furnished with either a short or long canvas case. The former carries the camera and three holders only; the latter will hold the camera, six holders, combination tripod, and in sizes to 6½x8½ inclusive, there is a compartment for lenses. In ordering, specify style of case desired.

| Size of View, in. | Focal Capacity. | Weight of Camera. | Double Swing. | Mahogany Plate Holders. | Extra |
|-------------------|-----------------|-------------------|---------------|-------------------------|-------|
| 4 x 5 | 13 | 2½ lbs. | \$29.75 | \$1.27 | |
| 4½ x 6½ | 15½ | 4 " | 30.60 | 1.62 | |
| 5 x 7 | 17 | 4¾ " | 34.00 | 1.70 | |
| 5x 8 | 19 | 5¾ " | 35.70 | 1.70 | |
| 6½ x 8½ | 20½ | 7 " | 38.25 | 1.93 | |
| 8 x10 | 24 | 9¼ " | 42.50 | 2.40 | |
| 10 x12 | 26¾ | 12¾ " | 46.75 | 3.83 | |
| 11 x14 | 30¾ | 15¼ " | 52.70 | 4.25 | |

The Monitor Camera.

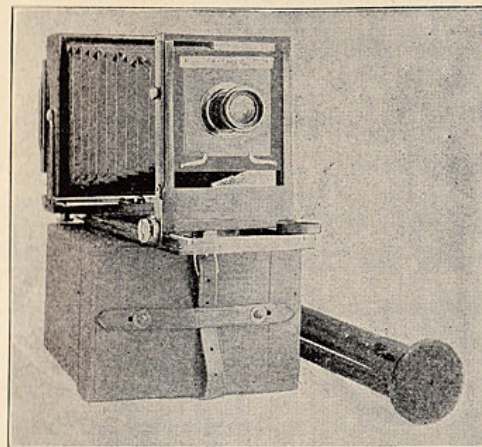


Reversible back, a new form of the compact style of view camera, especially designed with a view of making a strictly high grade compact camera at a low price. It is made of the best mahogany, highly polished, brass work is polished and lacquered, and bellows is of finest leather. It has extra long draw, thus allowing the use of lenses of extreme length of focus, while the back will slide forward by loosening two milled heads, so that extreme wide angle lenses can be used. The Monitor has double

swing back, rising and falling front, and is fitted with rack and pinion. The rising and falling front is controlled by a spring working in a ratchet, doing away with milled heads. The back is square, and may be reversed for either vertical or horizontal pictures. The ground glass is spring actuated. The Monitor is provided with a leather handle, so that it may be carried without the case if desired, as one holder can be carried between the ground glass and camera back. Price includes canvas carrying case, one Perfection, Jr. holder, and combination tripod, but no lens. Monitor Cameras up to and including 8x10, are supplied with either a short or long canvas case. The former carries the camera and the three holders. The latter holds camera, six holders and combination tripod, and in sizes up to 6½x8½, inclusive, there is a space for lenses. In ordering, specify style of case desired.

| Size of Plate, in. | Price. | Extra Plate Holders with Rubber Slides. |
|--------------------|---------|---|
| 4 x 5 | \$20.40 | \$1.05 |
| 5 x 7 | 23.00 | 1.32 |
| 5 x 8 | 25.50 | 1.35 |
| 6½ x 8½ | 28.00 | 1.50 |
| 8 x10 | 30.60 | 1.90 |
| 10 x12 | 36.00 | 3.40 |
| 11 x14 | 38.25 | 4.25 |

Montgomery Ward & Co.'s Chicago View Equipment.



This is a View Outfit of our own production, designed for thoroughly business purposes and recommended alike to the professional and amateur photographer, in search of a handsome and complete equipment at a moderate price. The camera is made in a first-class manner in every respect, light as is possible with rigidity, and is the best value instrument on the market. It is made of best selected mahogany, beautifully polished, and all metal parts are polished and lacquered brass. The back is reversible, so that either vertical or horizontal pictures can be taken without altering the position of camera or changing the focus, and ground glass screen is spring actuated. The slides of the plate holder can be drawn from top, bottom or either side. The

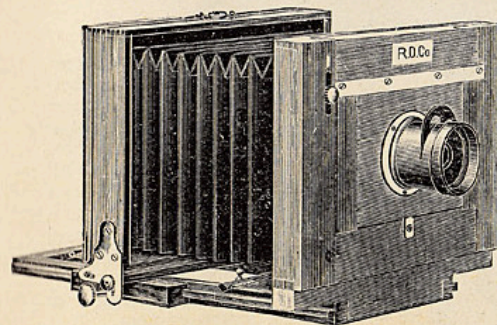
Chicago is supplied with rack and pinion for focusing, rising and falling front and cone shaped bellows. Made with double swing only. The carrying case holds camera and three plate holders. The tripod is our well-known Sliding and the lens our Crystal Achromatic. Price includes camera, with or without lens, as desired, one double plate holder, sliding tripod and canvas carrying case, except in size 11x14, with which size neither tripod or lens is furnished.

| Size. | Without Lens. | Including Crystal Achromatic Lens. | Extra Plate Holders. |
|--------------|---------------|------------------------------------|----------------------|
| 5 x 7 inches | \$15.25 | \$18.00 | \$1.06 |
| 5 x 8 " | 15.25 | 18.50 | 1.15 |
| 6½ x 8½ " | 18.00 | 21.50 | 1.37 |
| 8 x10 " | 19.50 | 23.50 | 1.57 |
| 11 x14 " | *24.00 | | 3.40 |

*This size is without lens and tripod.

NOTE.—We can fit the Chicago View with any lens quoted in this catalogue. To ascertain cost of the equipment fitted with any of our lenses other than the Crystal, add to the catalogue price of size desired, the price of the lens wanted, then deduct the catalogue price of the Crystal lens.

The New Model Camera.



The New Model Camera is well known, it having been on the market for some years, and its popularity attests its merits. It is very light and compact, making a very desirable camera for the amateur who desires a good but cheap outfit. The New Model is made of selected cherry, well finished, and with nickel trimmings. It is provided with sliding front, folding bed, and is easily reversed for upright pictures, with adjustable reversing clamp, by which means the strain is en-

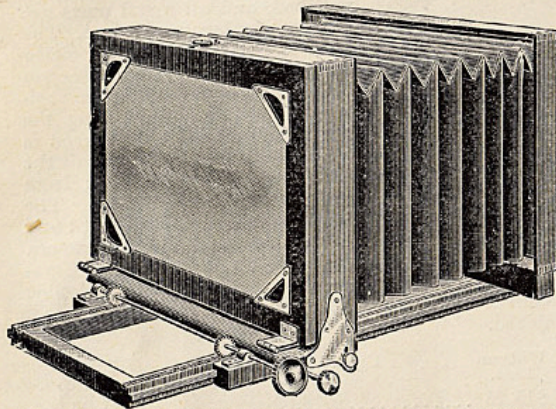
tirely on the bed where it belongs. The folding part of the bed is held rigid by a

clamp-hook. Price includes single view lens, standard folding tripod, carrying case, and one perfection plate holder (except 8x10, where neither lens or tripod are included). The carrying case will hold two extra plate holders.

| Size of View. | Focal Capacity. | Weight of Camera. | Single Swing. | Extra Plate Holders. |
|----------------|-----------------|-------------------|---------------|----------------------|
| 3¼ x 4¼ inches | 8½ inches | 1¾ lbs. | \$ 8.50 | \$0.85 |
| 4 x 5 | 9 | 1¾ | 8.50 | .85 |
| 4½ x 6½ | 9½ | 2 | 9.35 | 1.06 |
| 5 x 7 | 11¾ | 2¼ | 10.20 | 1.06 |
| 5 x 8 | 12½ | 2½ | 10.20 | 1.15 |
| 6½ x 8½ | 14 | 2¾ | 12.75 | 1.37 |
| 8 x 10 | 16 | 5 | *11.90 | 1.57 |

*Not including lens or tripod.

New Model Improved Camera.

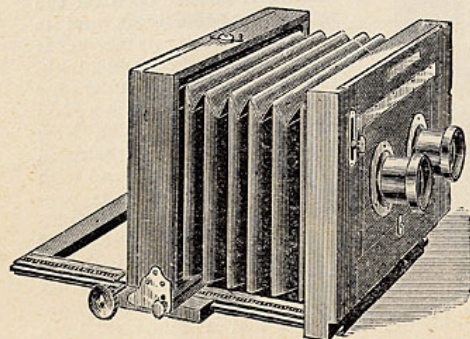


The New Model Improved is made after the general style of the New Model. It is very light and compact, which, together with its handsome appearance, makes it a very desirable instrument for those who want a good camera but do not care to invest in a high-priced outfit. The New Model Improved is made of the best Honduras mahogany, highly polished, with nickel trimmings. It has sliding front, folding bed, and is reversible by means of adjustable reversing clamp. It has rack

and pinion focusing movement; the folding part of bed is held rigid by a clamp-hook. Price includes single view lens, sliding tripod, carrying case, and one perfection plate holder (except 8x10, where neither lens or tripod are included). The carrying case will hold two extra plate holders.

| Size of View. | Focal Capacity. | Weight of Camera. | Single Swing. | Double Swing. | Extra Plate Holders. |
|----------------|-----------------|-------------------|---------------|---------------|----------------------|
| 3¼ x 4¼ inches | 8½ inches | 1¾ lbs. | \$11.05 | \$12.75 | \$0.85 |
| 4 x 5 | 9 | 1¾ | 11.90 | 13.60 | .85 |
| 4½ x 6½ | 9½ | 2 | 13.60 | 15.00 | 1.06 |
| 5 x 7 | 11¾ | 2¼ | 15.30 | 17.00 | 1.06 |
| 5 x 8 | 12½ | 2½ | 15.30 | 17.00 | 1.15 |
| 6½ x 8½ | 14 | 2¾ | 18.70 | 20.40 | 1.37 |
| 8 x 10 | 16 | 5 | 12.75 | 14.45 | 1.57 |

New Model Stereoscopic Camera.



The revival of the stereoscope necessarily creates a demand for a first-class stereoscopic camera. To meet this demand has been devised the New Model Stereoscopic Camera, believing it will find favor with all who are interested in this most fascinating branch of photography. This camera is light and compact, and is the simplest instrument on the market, combining the many desirable features needed in a stereo camera. It is made from the best Honduras mahogany, highly polished, with nickel trimmings. The New Model

Stereoscopic Camera is patterned closely after the New Model Improved, having rack and pinion for focusing, sliding front, folding bed, and is reversible by means of adjustable reversing clamp. The folding bed is held rigid by a clamp-hook. The partition and front board are removable, so that the camera may be used, if desired, for other than stereoscopic pictures, by the addition of a lens of sufficient size to cover the full plate. Each camera is enclosed in a neat canvas case, with room for two extra perfection holders.

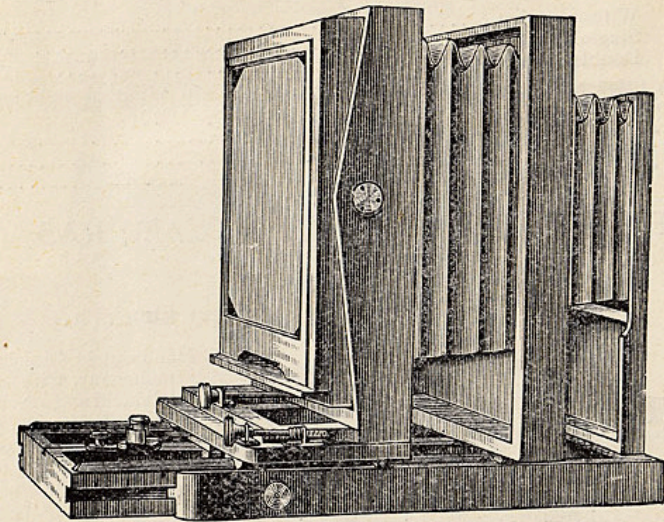
Price for 5x8, with matched pair of No. 1 view lenses, sliding tripod and one perfection holder.....\$18.70
 Complete, without lenses..... 13.60
 Complete, without lenses or tripod..... 11.90

PORTRAIT CAMERAS.

The following cameras are for use in the studio or tent, for portrait and process work, and are not intended for the landscape photographer's use:

Climax Cameras, Fitted with the Benster Plate Holders.

These cameras are manufactured in the most substantial manner from the best of mahogany, and handsomely finished, with all late improvements.



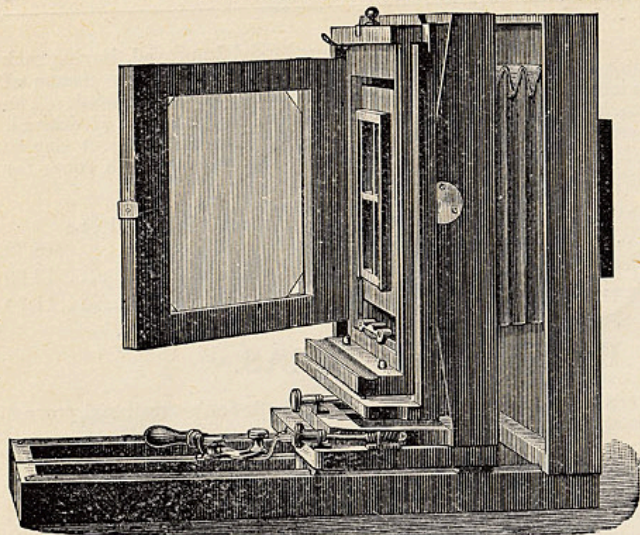
No. 14 B Climax Camera, with Telescopic Bed and Benster Holder.

Double Swing Back, Tangent Screw Motion and Telescopic Bed.

| | | |
|-----------|--|----------|
| No. 13 B. | 11x14 and under ; length of bed, 49 inches | \$ 58.00 |
| " 14 B. | 14x17 " " " 60 " | 69.00 |
| " 15 B. | 17x20 " " " 65 " | 82.00 |
| " 16 B. | 18x24 " " " 75 " | 89.00 |
| " 17 B. | 20x24 " " " 77½ " | 96.00 |
| " 18 B. | 22x27 " Cameras made to order only | 118.00 |
| " 20 B. | 25x30 " " " " " | 150.00 |

All the above are supplied with a lever attachment, by which the most minute adjustment of the focus may be instantly obtained.

Climax Cincinnati Gem Camera.



Length of Bed, 30 3/4 inches.

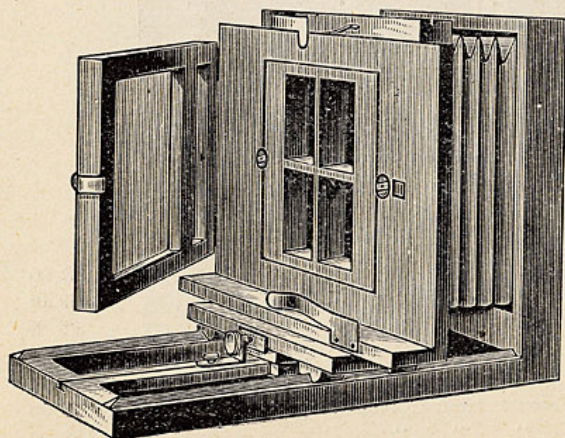
Fitted with the Benster Plate Holder.

For negatives or ferro-types (admitting of picture 8x10 and under, two on 8x10, 7x10 or 5x7 with one lens) with carriage movement on our patent rollers, lever focusing attachment and fitted with the Benster holder with wooden slide.

- No. 43 B. Without swing\$25.65
 - " 43 B. Single swing..... 28.50
 - " 43 B. Double swing..... 31.00
- When fitted with four 1/4 Gem Tubes on plate, it will admit of eight on 7 x 10, and four on 5x7.
- Without swing, fitted with four tubes on plate\$38.00
 - Single " " " " 40.85
 - Double " " " " 45.00

FERROTYPE (TIN-TYPE) CAMERAS AND OUTFITS.

The Improved Victoria Ferrotyp Camera.



Handsomely finished in mahogany, with rabbeted shield and kit. Makes one 5x7, 4 1/2 x 5 1/2, or 3 1/4 x 4 1/4 picture, reversible, with a single 5x7 lens or four or eight gems on a 5x7 plate with four gem lenses.

- Without lenses....\$14.25
- With four 1/4 size lenses on plates.... 27.00
- Extra holders, with kits. Each..... 5.50
- Extra sets Diaphragms for bon-ton. Each..... 1.35
- Extra sets Diaphragms for nine one-ninth size lens. Each..... 1.50

TINTYPE OUTFITS.

Ferrotyp Outfit No. 1.

1 (No. 37 1/2) Ferrotyp Camera fitted with four Gem tubes for four pictures on 3 1/4 x 4 1/4 plate; 1 box 3 1/4 x 4 1/4 ferro plates; 500 Caterson's No. 4 holders; 1 5x7 glass bath; 1 No. 4 hard rubber dipper; 1 pint silver solution. *Sundries*—8 ounces ferrotyp collodion; 1 16-ounce bottle acetic acid; 1 16-ounce bottle sulphate iron; 1 pint alcohol; 1 tall head rest; 1 camera stand; 2 half-pint glass funnels; 1 collodion vial; 1 3-ounce graduate; 1 alcohol lamp; 1 box dry colors and brushes; 1 jar paste; 1 bristle brush; 1 camel's hair brush; 1 4-ounce bottle cyanide potassium; 1 bottle varnish; 1 package absorbent cotton; 1 copy Ferrotyp's Manual.

Price, net.....\$32.00

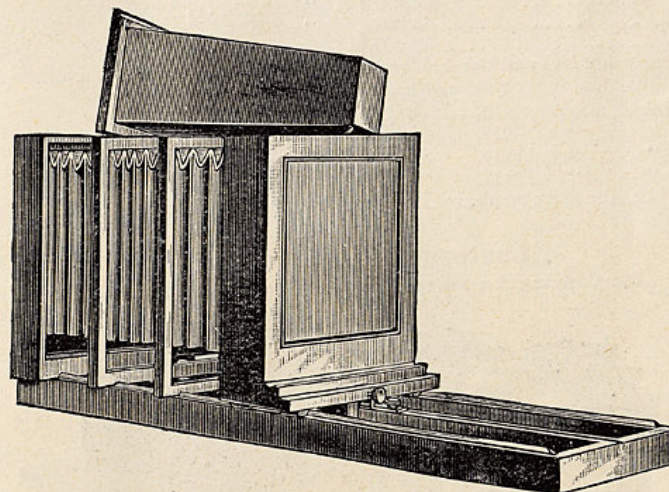
Ferrotyp Outfit No. 2.

1 5x7 Improved Victoria Camera fitted with four gem tubes for either four or eight pictures on a 5x7 plate, and with a half-size portrait lens for one or two pictures on a 5x7 plate; 50 10x14 ferrotyp plates; 500 No. 11 envelopes; 1 5x7 glass bath, with dipper; 1 pint of silver solution; 1 lot sundries as specified in outfit No. 1.

Price, net.....\$60.00

O I C Copying Cameras.

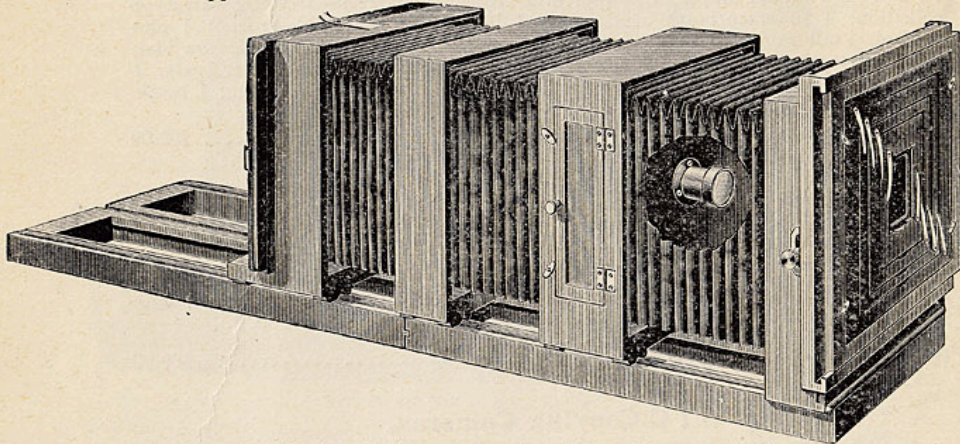
In walnut, with extra long rubber bellows, cone, improved wooden guide, focus screw and sliding front. These cameras are all fitted with Benster holder, with wooden slide and silver saving bottle.



- No. 28. With 3 3/4 foot bed, for 8x10 to 1-4.....\$27.25
- " 29. " 4 " " 10x12 " 1-2 34.65
- " 30. " 4 1/2 " " 11x14 " 1-2..... 40.85
- " 31. " 5 " " 14x17 " 4-4..... 52.75
- " 32. " 6 " " 17x20 " 8x10..... 58.50

Climax Enlarging, Reducing and Copying Cameras.

The form of construction of this new camera is made apparent by the illustration here shown. The experienced copyist will not need any such simple directions for use as we append.



An important feature in this camera, that is found in no other, is that the center-board with lens can be used in the end of the camera, converting it at once into an extra long copying camera. This will be found very advantageous in enlarging small pictures by one operation.

| | | | |
|---------------------------|---------|-------------------|----------|
| Size, 6 1/2 x 8 1/2 | \$28.50 | Size, 14x17 | \$ 68.40 |
| " 8 x10 | 23.25 | " 18x22 | 95.00 |
| " 10 x12 | 45.60 | " 20x24 | 104.50 |
| " 11 x14 | 57.00 | | |

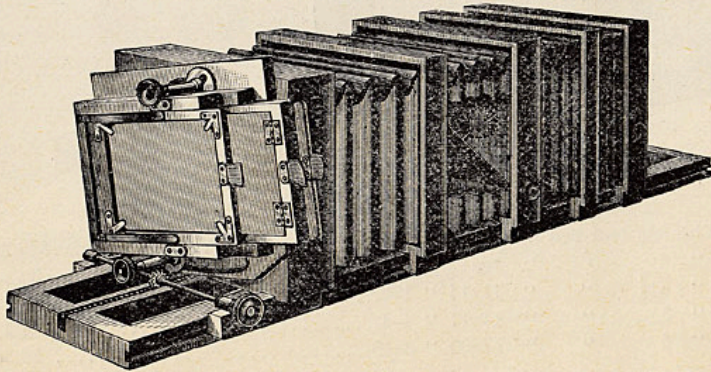
Both the outside kits and the holder kits are fitted with springs, and are interchangeable, thus making possible any transposition of sizes desired.

| |
|--|
| Holder kits for 8x10—4 1/2 x5 1/2, 5x7, 5x8, 6 1/2 x8 1/2. |
| " " 10x12, same as above, with the addition of 8x10. |
| " " 11x14, " " " " 10x12. |
| " " 14x17, " " " " 11x14. |

Outside kits, the same as above, in all sizes, with the addition of 3 1/4 x4, 3 1/4 x4 1/4, and 4x5.

Lantern Slide Camera.

For Copying 4 x 5 Negatives for Use in the Lantern.

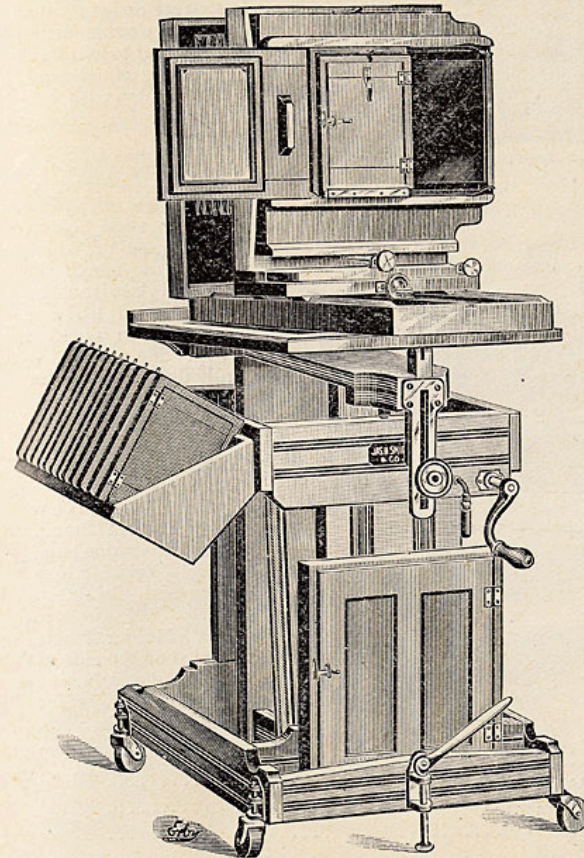


Is made with special reference to transparency work, and has an oscillating frame carriage for ground glass and plate holder, to facilitate the adjustment of picture on

plate. It is well made, light and simple of construction and unsurpassed for excellence and convenience. An important feature in this camera that is found in no other is that the center board with lens can be used in the end of the camera, converting it at once into an extra long copying camera. This will be found very advantageous in enlarging small pictures by one operation.

| | |
|--|---------|
| Price | \$11.50 |
| Special Holders, extra, 3 1/4 x4, or 3 1/4 x4 1/4 inches | 1.50 |

Chicago Studio Outfit.



This is the cheapest and one of the most convenient and complete outfits ever invented for the studio. It includes one 8x10 camera, ground glass and bonanza plate holder, carrying plates of any size from 4x5 up to 8x10, reversible. It has rubber bellows, double swing back and focusing screw. It is also fitted with an attachment for cabinet work, which is provided with an extra cabinet ground glass and a single plate holder, 5x7 size. This attachment is so constructed that when the subject has been posed and focused, a single movement, sliding the attachment to the left, not only pushes the ground glass aside, but also brings the plate holder into position and automatically draws the slide. And after the exposure, by simply pushing the attachment to the right, the slide automatically closes, and the ground glass is brought into position for the next subject. The camera stand is the popular No. 2 Magic. The stand carries

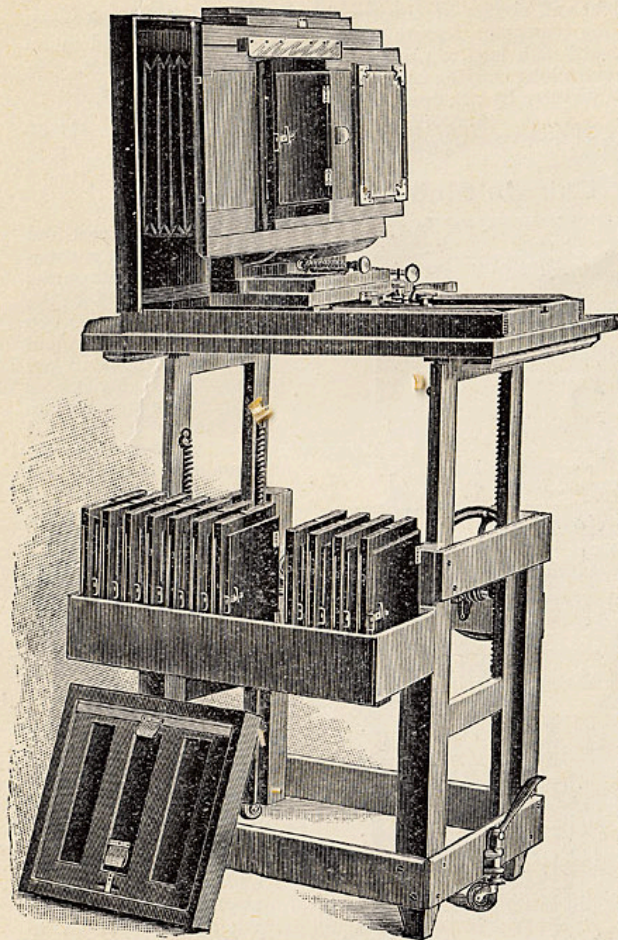
the 8x10 holder on a rack in the rear, and the side rack has 13 grooves for one dozen 5x7 single holders, leaving one vacant groove between the exposed and unexposed plates.

| | |
|--|---------|
| Outfit, complete, with one 5x7 holder | \$37.50 |
| Extra Plate Holders, 5x7, single, each | .90 |

An Exhibition Outfit

Containing a Lantern, Moving Picture Apparatus and a Talking Machine, form one of the best money making combinations for the exhibitors' use possible to obtain. See our quotations on goods of this kind.

New York Studio Outfit.



A well known, well advertised and excellent equipment. It has never before been sold at as low a price as we now list it. It includes:

I. 8x10 Mahogany Portrait Camera, of newest design, fitted with double swing back and patent lever focusing attachment. Fitted also with curtain slide Benster holder.

II. Anthony's Automatic Cabinet Attachment, with one curtain slide holder, by means of which in one movement the ground glass is pushed aside and holder placed in position with slide automatically drawn, ready for exposure.

Extra holders, with curtain slide, 4 1/4 x 6 1/2, 5x7 or 5x8, \$1.50 each.

III. No. 1 New York Camera Stand, having only one hand wheel for raising, lowering and tilting the top.

IV. Holder Rack, carried on the side of the stand and having thirteen grooves for twelve plate holders.

| | |
|--|---------|
| 8 x 10 Outfit | \$40.00 |
| 11 x 14 Outfit | 63 00 |
| No. 11 C. Camera, 8 x 10, alone..... | 20.00 |
| No. 13 C. Camera, 11 x 14, alone | 47.50 |

Photographic Lenses.

Air Bubbles.—In late years great progress has been made in high grade glass for photographic objectives, but the manufacture of the improved glass presents unusual difficulties, among others, the presence of small air bubbles, which so far has proven unavoidable. We quote the manufacturers, Messrs. Schott & Co., Jena, Germany, after admitting the impossibility of producing high grade glass free from air bubbles: "We must direct attention to the fact that the presence of small air bubbles even in the most unfavorable case does not cause a loss of light exceeding one-fiftieth of one per cent., and therefore is entirely without effect upon the optical result of a lens system." With the above explanation we trust our customers will not prove unreasonable on this point.

The Single View Lenses are used in the cheaper grade of cameras, both view and hand, and with them excellent photographs of landscape and other forms of pictures made out of doors can be made.

The Rapid Rectilinear Lenses give much better results on the same kind of work than does the Single View, the details being more clearly shown. Additionally, having a greater working speed, instantaneous pictures of much more difficult subjects can be made with them than can be made with the Single View.

The Extra Rapid Rectilinear are suitable for any purpose that the above can be used for, and additionally for portrait and copying work in the studio.

The Wide Angle are for work requiring a greater angle of view than is obtainable from the ordinary lenses, thus rendering them particularly suitable in photographing architectural subjects, tall buildings, etc. In their construction, however, speed being sacrificed to obtain angle, they are not suitable for instantaneous work except under the most favorable conditions.

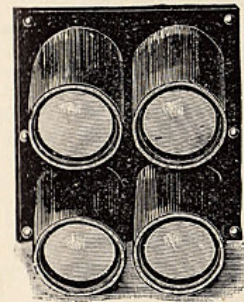
While Results in Photography depend to a great extent upon personal skill and experience, the basis of good work is always the lens. The camera and its adjuncts may be more or less crude, but that part of it which gives the photographic image, the lens, should be of as high grade as possible, and when purchasing, the photographer should have in mind the use to which the lens is to be put.

The Portrait are for portrait and process work in the studio only.

A lens can always be used to take pictures smaller than the plate which it is designed to cover. For instance, a 5x8 single view lens can be used to make 4x5 pictures, but nothing larger than 5x8. A double or rectilinear lens of a certain size can be used to make pictures of a larger size by removing from the tube one combination of glasses, and using the instrument as a single view lens. This is not advisable, however, as results are never wholly satisfactory.

Lenses on Trial.

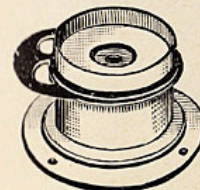
We are prepared to send any of the lenses listed in this catalogue on five days' trial, provided full amount of cash accompanies orders, and lens is returned in good order, by prepaid express, within the specified time.



Gem Tubes (Ferrotypes).

These are lenses mounted in plain tubes without central stops or hoods. They come matched—the one-ninth in sets of 4, 6 or 9 each; the quarter size in sets of 2, 4, 6 or 8.

| | |
|---|---------|
| One-ninth size, 3 in. back focus, each..... | \$ 2.24 |
| One-quarter size, 4 3/4 in. back focus, each..... | 3.50 |
| One-quarter size, per set of 4..... | 12.50 |
| Brass plates for above supplied as follows: | |
| For 9 one-ninth size gem lenses | 1.80 |
| For 4 one-quarter size gem lenses..... | 1.25 |



M. W. & Co.'s Rapid Achromatic Lens, the Thornward Crystal.

A well-constructed well mounted lens, with revolving diaphragm, designed for landscape work, and when used with large tops, are amply rapid for instantaneous work. The best single view lens on the market.

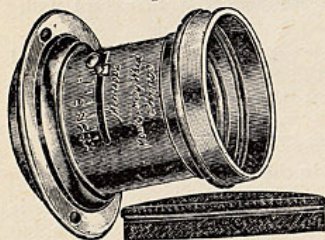
Prices on next page.

PRICES OF THORNWARD CRYSTAL LENS.

| No. | Equivalent Focus. | Size of Plate with Stop F16. | Diameter of Lens. | Price. |
|--------|-------------------|------------------------------|-------------------|--------|
| 1..... | 8 inches..... | 4 x 5..... | 1 inch..... | \$3.75 |
| 2..... | 11 "..... | 5 x 7..... | 1.4 "..... | 4.50 |
| 3..... | 12 "..... | 5 x 8..... | 1.6 "..... | 5.00 |
| 4..... | 13 "..... | 6½x8½..... | 1.8 "..... | 6.00 |
| 5..... | 16 "..... | 8 x10..... | 2.2 "..... | 7.25 |
| 6..... | 22 "..... | 11x14..... | 3.0 "..... | 10.00 |

NOTE.—No. 1 furnished in matched pairs for stereoscopic work at \$7.50 per pair.

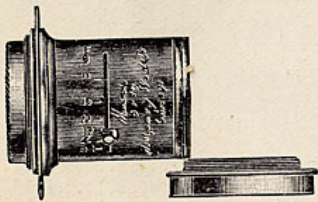
Our Rapid Rectilinear Lens, the Thornward Meniscus.



This series of Lenses will be welcomed by those who desire a lens for general use, better than a single view, and yet at a moderate price. They are carefully made, are very rapid, perfectly rectilinear, gives sharp definition, and are quite free from marginal distortion. The back combination may be used separately, either as a single view or a long focus lens with excellent results, and when thus used will give a magnified image. While they have not the working speed of our extra rapid series, they will be found excellent for landscapes and architectural subjects, and instantaneous and group work out of doors. Furnished with the new Iris diaphragms.

| No. | Equivalent Focus. | Size of Plate with Stop F10. | Diameter of Lens. | Price. |
|--------|-------------------|------------------------------|-------------------|---------|
| 1..... | 7 inches..... | 4 x5..... | 1 inch..... | \$ 8.00 |
| 2..... | 9¾ "..... | 5 x7..... | 1.4 "..... | 9.00 |
| 3..... | 11 "..... | 5 x8..... | 1.5 "..... | 10.00 |
| 4..... | 12 "..... | 6½x8½..... | 1.6 "..... | 15.00 |
| 5..... | 14 "..... | 8 x10..... | 1.9 "..... | 20.00 |
| 6..... | 16¾ "..... | 11 x14..... | 2.3 "..... | 30.00 |

Our Extra Rapid Rectilinear Lens, the Thornward Special.



Lenses of this series are made according to a new formula, from the famous Jena optical glass of highest quality, especially for us. They are of the Rapid Symmetrical type and are adapted for landscapes, viewing, groups and instantaneous work on the field; portraits, groups and copying in the studio, in fact for every purpose where a high-grade lens is required. They are of highest polish and best quality and cover a plate to the extreme edge with full opening; are handsomely finished and speed is equal to that of any of the popular lens that list at a much greater price.

The back lenses may be used alone, covering about twice the size of plate with about one-half the speed. These lenses are furnished in superior brass mountings.

| No. | Equivalent Focus. | Size of Plate with Stop F8. | Diameter of Lens. | Price, with Iris Diaphragms. | Price, fitted with Bausch & Lomb Unicum Shutter |
|--------|-------------------|-----------------------------|-------------------|------------------------------|---|
| 1..... | 6 inches..... | 4 x 5..... | ¾-inch..... | \$14.50..... | \$16.50 |
| 2..... | 7¾ "..... | 5 x 7..... | 1 1/16 "..... | 20.00..... | 22.50 |
| 3..... | 8¾ "..... | 5 x 8..... | 1 1/4 "..... | 23.00..... | 25.50 |
| 4..... | 9½ "..... | 6½x 8½..... | 1 1/3 "..... | 28.00..... | 31.00 |
| 5..... | 11½ "..... | 8 x10..... | 1 7/8 "..... | 32.00..... | 35.00 |
| 6..... | 14½ "..... | 10 x12..... | 2 "..... | 45.00..... | |
| 7..... | 17 "..... | 11 x14..... | 2 1/4 "..... | 50.00..... | |

M. W. & Co.'s Thornward Improved Wide Angle Lens.



These lenses are highly recommended for those desiring a cheap Wide Angle Lens for photographing high buildings, interiors and architectural work generally. They have an angle of from 80 degrees to 90 degrees, depending upon the stop used. These lenses have excellent covering capacity and equality of illumination, and where the larger stops are used, a speed suitable for instantaneous or flash light exposures can be obtained. Each lens is mounted in highly finished brass and is provided with revolving diaphragms and morocco cap.

| No. | Size of Plate with Stop F16. | Back Focus. | Price. |
|--------|------------------------------|----------------|--------|
| 1..... | 4 x 5..... | 3½ inches..... | \$5.50 |
| 2..... | 5 x 8..... | 4½ "..... | 7.00 |
| 3..... | 6½x 8½..... | 5 "..... | 9.00 |
| 4..... | 8 x 10..... | 6 "..... | 12.50 |
| 5..... | 10 x 12..... | 7 "..... | 16.00 |
| 6..... | 11 x 14..... | 8¼ "..... | 21.50 |
| 7..... | 14 x 17..... | 10 "..... | 27.00 |

M. W. & Co.'s Thornward Wide Angle Symmetrical Lens.

These lenses are an entirely new series. They are free from all optical distortion and have extraordinary definition, with great flatness of field and depth of focus. They have an angle of from 90 degrees to 100 degrees, and cover the plate with a brilliant and equal illumination of light over the entire surface, which makes them the most rapid lenses of this class known.

| No. | Equivalent Focus. | Back Focus. | Size of Plate with Stop F16. | Diameter of Lense. | Price. |
|---------|-------------------|----------------|------------------------------|--------------------|---------|
| 1..... | 5 inches..... | 4¾ inches..... | 4 x 5..... | .80..... | \$10.00 |
| 2..... | 7 "..... | 6¼ "..... | 5 x 7..... | 1..... | 12.00 |
| 3..... | 7½ "..... | 7 "..... | 5 x 8..... | 1.11..... | 14.00 |
| 4..... | 8½ "..... | 7¾ "..... | 6½x 8½..... | 1.49..... | 16.00 |
| 5..... | 10 "..... | 9¼ "..... | 8 x 10..... | 1.64..... | 20.00 |
| 6..... | 12¼ "..... | 11½ "..... | 10 x 12..... | 1.86..... | 25.00 |
| 7..... | 14 "..... | 13 "..... | 11 x 14..... | 2.22..... | 30.00 |
| 8..... | 17½ "..... | 16 "..... | 14 x 17..... | 2.71..... | 45.00 |
| 9..... | 20 "..... | 18¾ "..... | 16 x 20..... | 3.09..... | 65.00 |
| 10..... | 24½ "..... | 22¾ "..... | 20 x 24..... | 3.82..... | 85.00 |

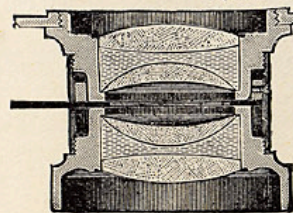
Zeiss Anastigmat. Series II A.—1:8

For Portraits. Groups, Instantaneous Out-Door Work and Copying. Especially Adapted for use on Hand Cameras.

The lenses of this series have an angular aperture of 80°, and are adapted for all kinds of instantaneous work, also for groups, portraits, architectural subjects, etc.

| No. | Size of Plate covered with Stop f 12.5. | Diameter of Image Circle at 72°. | Free Diameter of Largest Lens. | Equivalent Focus. | Price. |
|-----|---|----------------------------------|--------------------------------|-------------------|---------|
| 1 | 4 x 5 in. | 6⅝ in. | ⅝ | 4⅜ in. | \$28.00 |
| 2 | 4¼ x 6½ " | 8¼ " | ¾ | 5⅜ " | 31.00 |
| 3 | 5 x 8 " | 10⅞ " | 1 | 6½ " | 41.00 |
| 4 | 6½x 8½ " | 12⅜ " | 1 1/8 | 8 " | 51.00 |
| 5 | 8 x10 " | 14¾ " | 1 1/8 | 9⅝ " | 60.00 |
| 6 | 10 x12 " | 17¾ " | 1⅝ | 11⅝ " | 80.00 |

Ross-Goerz Double Anastigmat.



Goerz patent, series 111, F. 7, 7, 10, can justly be looked upon as ideal perfection in optics, and is undoubtedly the most rapid lens in existence. The Double Anastigmat permits the use of the largest stop without diminishing the sharpness of the image at the extreme margin of the plate. The definition is wonderful, and brilliancy and flatness of field are uniform over the entire plate. Should you desire portraits in-doors or out-doors, groups, marine views, landscapes, botanical studies, instan-

taneous studies of animal life in motion, copies, enlargements, reproductions or mercantile photographs, this lens will render them all and do it equally well in all instances, even being available for wide angle work, as it gives, with a medium stop, an angle of 90 degrees.

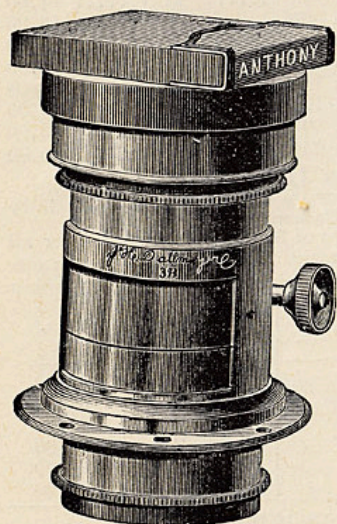
PRICE LIST OF SERIES III.

| No. | Equivalent Focus. | Plate Covered F. 8. | Plate Covered F. 16. | Price, Iris Diaphragm. |
|-----|-------------------|---------------------|----------------------|------------------------|
| 00 | 4 | 3¼ x 4¼ | 4 x 5 | \$ 34.50 |
| 0 | 5 | 4 x 6 | 4¼ x 6¼ | 36.50 |
| 1 | 6 | 4¼ x 6½ | 5 x 7 | 43.50 |
| 2 | 7 | 5 x 7 | 5½ x 8½ | 50.00 |
| 3 | 8¼ | 5½ x 8½ | 6½ x 8½ | 60.50 |
| 4 | 9½ | 6½ x 8½ | 8 x 10 | 73.00 |
| 5 | 10½ | 8 x 10 | 10 x 12 | 88.50 |
| 6 | 12 | 10 x 12 | 11 x 14 | 104.00 |

NOTE.—Owing to the fact that the combinations of Goerz lenses are set very close together, these lenses cannot be fitted with the Victor, Bausch & Lomb or Unicum Diaphragm shutters. The only diaphragm shutter with which they can be fitted is the new Goerz Sector. This we can furnish fitted to sizes from 0 to 5 inclusive, at a cost of \$22.00 for any size.

Dallmeyer's Patent Portrait Lenses (B).

Quick-Acting Lenses.



- No 1 B. Patent Lens, with rack and pinion movement. Diameter of lenses, 2 inches, and equivalent focus, 6 inches. For carte de visite portraits, distance between subject and lens for standing figure, 12 to 13 feet..... \$56.00
- No. 2 B. Patent Lens, with rack and pinion movement. Diameter of lenses, 2¾ inches, and equivalent focus, 8½ inches. Especially constructed for carte de visite portraits. Distance between subject and lens for a standing figure, 18 feet..... 102.00
- No. 3 B. Ditto, ditto. Diameter of lenses, 3½ inches, and equivalent focus, 10½ inches. Especially constructed for cabinet portraits. Distance between subject and lens for a standing figure, 18 feet..... 152.00
- No. 4 B. Ditto, ditto. Diameter of lenses, 4½ inches, and equivalent focus, 14 inches, for pictures 8½x6½ inches and under. Distance for a cabinet portrait, 25 feet..... 304.00

The Ray Filtergraph.

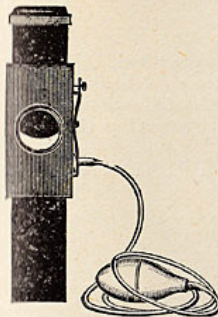
An attachment for use on any lens, having a diameter of hood of sizes given. For producing true color values, cloud effects, etc; Their uses are thoroughly explained in the instruction book which accompanies each. In our list of sizes, the inside dimensions quoted are the largest diameters of hoods to which each cell can be fitted.

| | | | | | | | | |
|-------------------------------|--------|--------|--------|--------|--------|--------|------|--------|
| Number..... | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Inside Diameter in inches.... | 1⅜ | 1¾ | 2⅜ | 2⅞ | 2⅞ | 3⅜ | 3¾ | 4¼ |
| Price..... | \$2.90 | \$2.15 | \$3.15 | \$3.60 | \$4.00 | \$4.50 | 5.00 | \$5.40 |

PHOTOGRAPHIC SHUTTERS.

When ordering Tube Shutters be sure to state diameter of tube it is to fit. When ordering Front Board Shutters state size of camera front board and what opening is desired. The opening in a shutter should be (about) the same as the visible diameter of the lens it is to be used with.

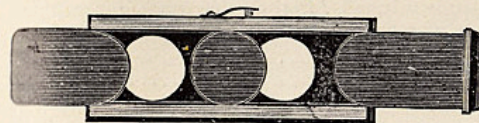
The Universal Shutter.



This is a very simple, yet effective form of shutter. The slide falls of its own weight when released, and by the use of a rubber band, any degree of rapidity may be obtained. A thin strip of rubber is placed in the top of the shutter to lessen the concussion caused by the falling slide.

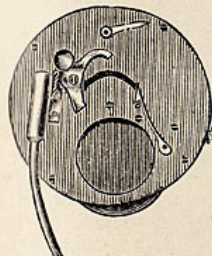
- With spring release.....\$0.85
- With pneumatic release, bulb and tube..... 1.13

The Stereoscopic Universal Shutter.



This is similar to the Universal Drop Shutter, except for two lenses, and as the slide moves horizontally, it is moved by a rubber band. Price.....\$1.40

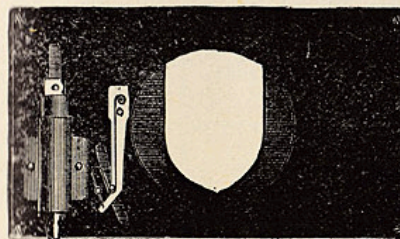
Marvel Shutter.



Is made to fit on the front end of the lens tube, and is constructed on the simplest principles and has the following distinct advantages: It is easily and quickly changed from time to instantaneous. It is not liable to get out of order. It is steel bronzed over brass, with parts nickeled, therefore presenting a handsome appearance. There is absolutely no rebound, as the disk locks itself after making the exposure. It is adjusted to the lens by a velvet-lined flange which is tightened by a screw, therefore avoiding all injury to the tube or making it necessary to cut the same. When ordering it is only necessary to measure the lens hood with a strip of paper and forward same. For sizes 8x10 and smaller the

- shutter should fit the lens hood. When designed for use with lenses larger than 8x10 remove the hood and use shutter over lens barrel.
- 5x8 and smaller..... \$5.50
- 6½x8½ and 8x10..... 6.25
- 10x12 and larger..... 7.50

Low Kazoo Shutter, No. 2.



This Low Kazoo, No. 2, is designed to be placed on the inside of camera and attached to the front board. It can be operated entirely from the outside of the camera, and at any distance away. To change from time to instantaneous exposures, it is only necessary to push in or pull out a small brass pin, which passes through the front board and into the shutter. It will balance open for any

length of time while focusing. The Kazoo gives the correct exposure, lighting the drapery or foreground most.

| | |
|--|--------|
| 1 1/2 inch opening, 4 inches by 2 3/4 outside..... | \$5.40 |
| 1 3/4 " " " 4 3/8 " " 2 7/8 " " | 5.85 |
| 2 " " " 4 7/8 " " 3 1/2 " " | 6.30 |
| 2 1/4 " " " 5 3/8 " " 3 7/8 " " | 6.75 |
| 2 1/2 " " " 6 " " 4 1/2 " " | 7.20 |

Low View Shutter, No. 10.

The Low View Shutter No.10 is simply constructed and is very practical. It is nicely finished with japan front, with brass trimmings, and cherry finished back. There are now many hundred of them in use which are giving universal satisfaction. They can be readily changed from time to instantaneous exposures, by moving the brass lever to one side.

| | | |
|-------------------------|---|-------------------|
| Price, each..... | \$5.40 | |
| 1 1/2-inch opening..... | 3 7/8-inch round. \| 1 3/4-inch opening..... | 4 1/4-inch round. |
| 2 inch opening..... | 4 3/4-inch round. \| 2 1/2-inch opening..... | 6 inch round. |

Low Portrait Shutter.

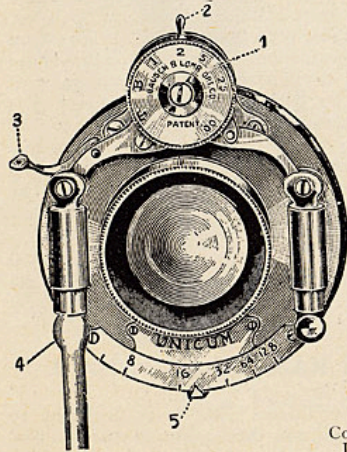
For those photographers who are equipped with a portrait camera, there is nothing better in the line of shutters than the No. 5 Low Compound Shutter. It is excellently made, works with pneumatic bulb, and is attached to the inner side of the front board, thus being out of sight of the sitter.

The No. 5 Shutter is also excellently adapted for time view work, for copying cameras, and, indeed, for every purpose where a time exposure is desired.

| | |
|---|--------|
| 1 1/2-inch opening, 3 inches square | \$3.60 |
| 1 3/4 " " " 3 1/2 " " | 3.60 |
| 2 " " " 4 " " | 4.00 |
| 2 1/2 " " " 4 3/4 " " | 4.00 |
| 3 " " " 5 1/2 " " | 4.50 |
| 3 1/2 " " " 6 3/4 " " | 5.00 |
| 4 " " " 7 3/4 " " | 5.40 |
| 4 1/2 " " " 8 1/4 " " | 5.85 |
| 5 " " " 9 " " | 6.30 |

Unicum Shutter.

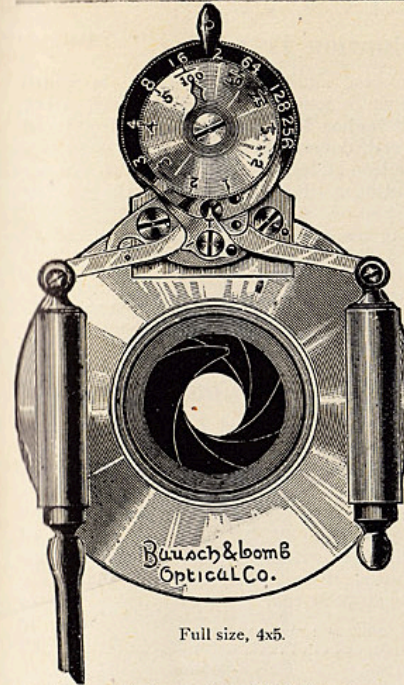
The Unicum Shutter is the latest product of the Bausch & Lomb Optical Co., and is one of the best working shutters now on the market. It has both finger and pneumatic release. It is fitted with Iris Diaphragms. The openings are in accordance with the uniform system, and are indicated on the scale. It works automatically from 1/100 of a second to 1 second, and any fraction between. Long time exposures are given by placing letter T at indicator; one pressure of the bulb will open the shutter, and the second pressure will close it. When letter B is at indicator, one pressure of the bulb will open it, and when pressure is released it will close. Any lens having 3/8 of an inch space between the front and back lenses can be fitted to this shutter.



| No. | Lens. | Complete on a new Lens of our own manufacture without barrel. | When fitted to Lenses of our own manufacture with extra barrel. | When fitted to Lenses of other manufacture leaving barrel intact. |
|-----|---------------|---|---|---|
| 1 | 4 x 5 | \$ 8.00 | \$ 8.00 | \$ 8.00 |
| 2 | 5 x 7 | 8.00 | 9.00 | 9.25 |
| 3 | 5 x 8 | 9.00 | 9.90 | 10.00 |
| 4 | 6 1/2 x 8 1/2 | 10.00 | 11.50 | 11.75 |
| 5 | 8 x 10 | 12.00 | 13.50 | 14.00 |

Diaphragm Shutter.

The Diaphragm Shutter will be found to meet every requirement of the amateur or professional photographer desiring a strictly first-class shutter for in-door or out-door work. It is constructed in the best possible manner, operates without concussion, even when set at the highest speed, and is almost noiseless in action. No loose diaphragms for the lens are necessary with this shutter, as the leaves serve the purpose of stops. It will work automatically from three seconds to the one-hundredth part of a second, and by simply moving a small lever, it may be set for time exposure of any desired duration. In the latter case a pressure on the bulb closes the shutter. Owing to the variations in size and pitch of threads and varying conditions in lenses it is necessary when ordering these shutters to send lens to us to be fitted.



Full size, 4x5.

Fitted for Universal or Clark Lenses.

| Size. | Price. |
|---------------------|---------|
| 3 1/4 x 4 1/4 | \$11.25 |
| 4 x 5 | 12.25 |
| 5 x 8 | 12.25 |
| 6 1/2 x 8 1/2 | 13.00 |
| 8 x 10 | 14.46 |

Fitted to other Lenses leaving the original barrel intact.

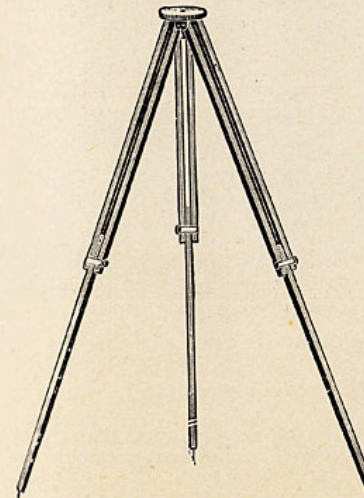
| Size. | Price. |
|---------------------|---------|
| 3 1/4 x 4 1/4 | \$13.00 |
| 4 x 5 | 13.00 |
| 5 x 8 | 14.00 |
| 6 1/2 x 8 1/2 | 15.00 |
| 8 x 10 | 16.20 |

TRIPODS AND CAMERA STANDS.

M. W. & Co.'s Standard Folding Tripod.

When head is removed, tripod folds to half length. Light, strong and rigid, suitable for cameras from 4x5 to 6 1/2 x 8 1/2.

Price\$1.35

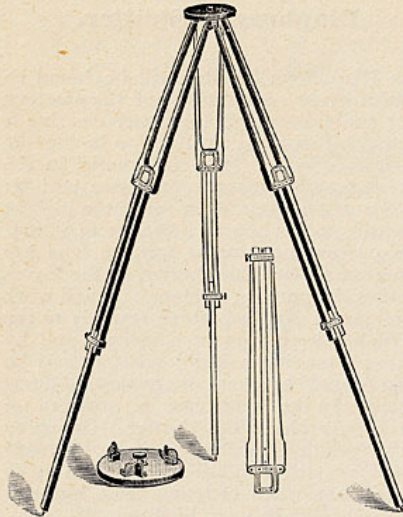


M. W. & Co.'s Sliding Tripod.

The simplest and best form of sliding tripod, strongly made, polished, and very rigid. Tops are assorted metal and wood, cloth covered. Legs are made in three pieces and slide together. Note low prices.

| | |
|---|--------|
| No. 1, for 3 1/4 x 4 1/4 to 5x7 cameras .. | \$1.50 |
| No. 2, for 5x8 and 6 1/2 x 8 1/2 cameras .. | 2.00 |
| No. 3, for 8x10 and 10x12 cameras .. | 2.50 |
| No. 4, for 11x14 and 14x17 cameras .. | 3.25 |
| No. 5, for 17x20 and 20x24 cameras .. | 4.25 |

M. W. & Co.'s Combination Tripod.



Combined sliding and folding. Is joined in three lengths, and when closed is but 22 inches long. The tripod top is of wood, covered with cloth. As the lower section slides, the tripod has all the advantages of adjustment of the sliding tripod.

- No. 0, for hand cameras.....\$2.35
- No. 1, for 3¼x4¼ to 5x7..... 2.55
- No. 2, for 5x8 and 6½x8½ 2.95
- No. 3, for 8x10 and 10x12 3.40
- No. 4, for 11x14 and 14x17 4.25
- No. 5, for 17x20 to 20x24..... 5.10

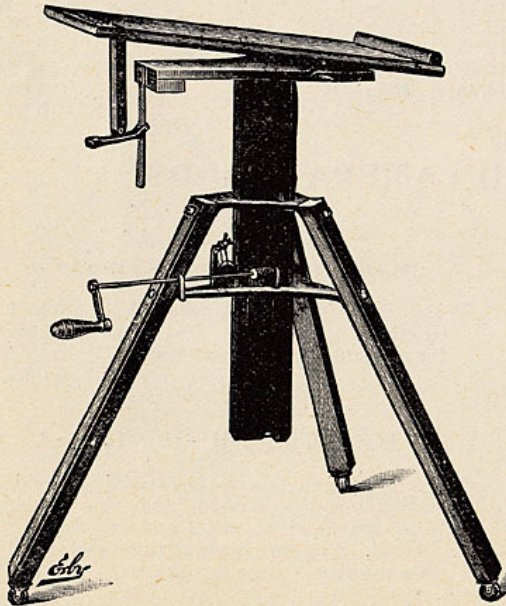
M. W. & Co.'s Compact Tripod

Is especially designed for use with hand cameras. It is a combined sliding and folding pattern, made exceedingly light and portable, yet of sufficient strength to preserve rigidity. It is easily and quickly set up for use, each section of the leg locking itself in place. When folded it measures only 16 inches in

length, and weighs but 14 ounces, including the circular top.

- No. 1, for 4x5 cameras..... \$3.75
- No. 2, for 5x7 and 6½x8½ cameras..... 4.25

Magic Camera Stand No. 0.

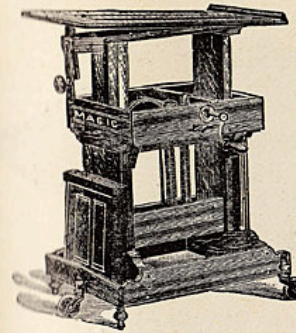


New! Substantial! Convenient! Cheap! This is the latest production in this line and designed to supply the universal demand for a good, substantial and convenient stand for cameras, 8x10, or smaller, at a very low price. The frame is built of ash wood and iron, all nicely finished. The elevation of the camera is accomplished by a simple, quick and easy method, viz.: By winding a belt on a shaft, and the upright central shaft is held and bound at any height by patent automatic roller stop. The unequalled, semi-automatic ratchet tilting device is used for tilting the top.

These stands all shipped "knocked down," but can be set up in less than thirty minutes, hence they are just the thing for portable as well as stationary studios.

Price, only.....\$6.00

The Magic Camera Stand No. 2.

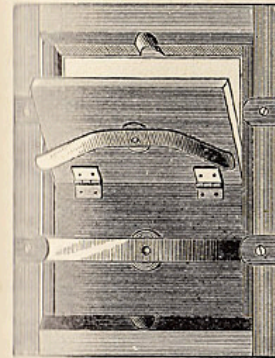


Always one of the most popular on the market, but greatly improved this year. It is supplied with an attachment which enables the operator, when he has his camera properly located, to raise the rear of the stand off its castors, thus rendering it quite impossible for it to be moved. When necessary to move the stand again a slight pressure with the foot on the attachment places the stand again on its castors. The elevating crank and stop lifting device are at the rear of the stand, thus enabling the operator to make any desired adjustment of the camera while his head is under the cloth. It is the lightest, strongest, most rapid, easiest and quickest to adjust of any stand made.

Price No. 2, for 11x14 and smaller cameras...\$10.75

Montgomery Ward & Co.'s Printing Frames.

We make these in all sizes and in two weights. The Feather Weight are intended for the amateur's use, and the Regular for the professional who prefers a heavier frame. All are substantially made, are handsome in appearance, and have ample depth for the insertion of a plain glass when printing from film negatives.

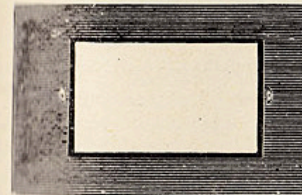


FEATHER WEIGHT.

| | | | |
|-------------|--------|------------|--------|
| 2½x2½ | \$0.20 | 4¼x4¼..... | \$0.25 |
| 2½x4 | .20 | 4 x5 | .25 |
| 3½x3½ | .20 | 4¼x6½..... | .28 |
| 3¼x4¼..... | .22 | 5 x7 | .30 |

REGULAR WEIGHT.

| | | | |
|--------------|--------|-------------|--------|
| 5 x 7 | \$0.38 | 11x14 | \$1.30 |
| 5 x 8 | .40 | 14x17 | 1.70 |
| 6½ x8½ | .45 | 16x20 | 2.10 |
| 8 x10 | .60 | 17x21 | 2.25 |
| 10 x12 | .75 | 18x22 | 3.00 |
| | | 20x24 | 3.75 |

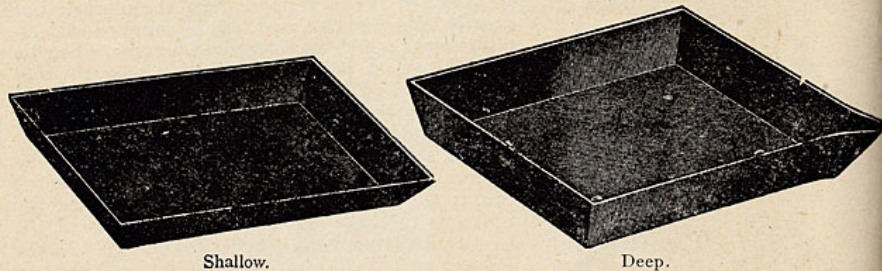


Inside Kits.

Consist of thin wooden frames, made to fit in the dry plate holder, and with rabbets for holding smaller plates. Our Kits have buttons at each end of aperture for holding plate in place.

| | | |
|--------|---|--------|
| 4 x 5 | to hold 3¼x4¼ plates, each..... | \$0.17 |
| 4¼x 6½ | " 3¼x4¼ plates, each..... | .17 |
| 5 x 7 | " 3¼x4¼ or 4x5 plates, each..... | .20 |
| 5 x 8 | " 3¼x4¼, 4x5, or 4¼x6½ plates, each..... | .20 |
| 6½x 8½ | " 4x5, 4¼x6½, 5x7 or 5x8 plates, each..... | .25 |
| 8 x10 | " 4¼x6½, 5x7 or 6½x8½ plates, each..... | .30 |
| 10 x12 | " 5x7, 5x8, 6½x8½ or 8x10 plates, each..... | .35 |
| 11 x14 | " 8x10 or 10x12 plates, each..... | .45 |

DEVELOPING AND TONING TRAYS.



The Thornward Compressed Fibre Developing and Toning Trays.

Manufactured for Montgomery Ward & Co.



The latest, the cheapest, the best. Black, smooth, handsome, strong. Guaranteed to be acid and alkali proof. Both styles have slight knobs on the bottom, and the deep trays all have a lip. The shallow are for developing, the deep for toning.

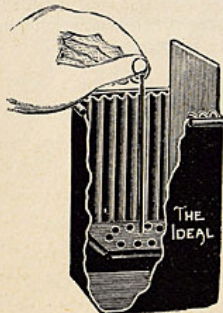
| Size, | Shallow. | Deep. |
|-----------------|----------|--------|
| 3 1/4 x 4 1/4 | \$0.15 | |
| 4 1/4 x 5 1/4 | .20 | \$0.40 |
| 5 1/4 x 7 1/4 | .32 | |
| 5 1/2 x 8 1/2 | .40 | .50 |
| 7 x 9 | .55 | .60 |
| 8 1/2 x 10 1/2 | .80 | .85 |
| 10 1/2 x 12 1/2 | | 1.30 |
| 12 x 16 | | 1.80 |

Glass Trays.

| | | | |
|-----------|-------|---------------------|--------|
| Size, 4x5 | \$.25 | Size, 6 1/2 x 8 1/2 | \$0.45 |
| " 5x8 | .35 | " 8 x 10 | .55 |

Rubber Trays.

| For Plates. | Vulcanized Rubber Shallow. | Each | Hard Rubber De p. |
|-------------|----------------------------|------|-------------------|
| 4x 5 | \$.25 | | \$0.50 |
| 5x 8 | .55 | | .70 |
| 7x 9 | .70 | | .85 |
| 8x10 | 1.00 | | 1.15 |
| 10x12 | | | 1.75 |
| 12x16 | | | 2.40 |
| 18x22 | | | 5.00 |
| 19x24 | | | 5.75 |

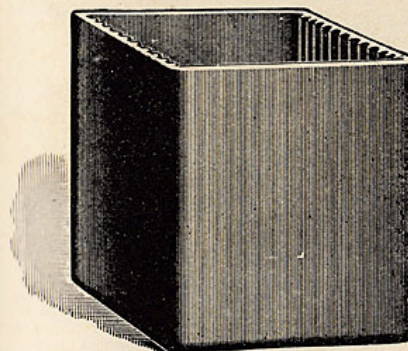


The Ideal Fixing Bath.

Made of metal and thoroughly practical. The illustration will explain its use.

| | |
|---------------------------------|--------|
| No. 1, for plates 3 1/4 x 4 1/4 | \$0.90 |
| No. 2, for plates 4x5 | .90 |
| No. 3, for plates 5x7 and 5x8 | 1.35 |

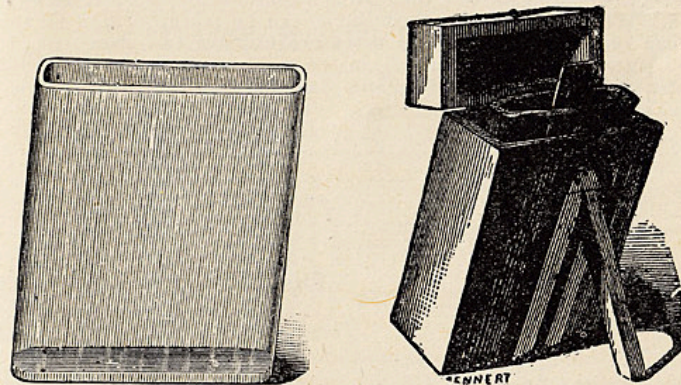
Hard Rubber Fixing Bath.



The only correct position for plates in the fixing bath being the vertical or standing one, these baths have been introduced to guard against the many failures resulting from fixing in trays. They are made of the material which best resists the action of photographic chemicals, are easily kept clean, and are provided with a ridge at the bottom which keeps the plate above any sediment that may collect. Each holds one dozen plates.

| | | |
|---------------------------------------|-------|--------|
| 3 1/4 x 4 1/4 or lantern slide plates | ..... | \$1.60 |
| 4x5 plates | ..... | \$1.80 |
| 4 1/4 x 6 1/2 plates | ..... | 1.95 |
| 5x7 plates | ..... | 2.00 |
| 5x8 plates | ..... | 2.25 |
| 6 1/2 x 8 1/2 plates | ..... | 2.70 |
| 8x10 plates | ..... | 3.15 |

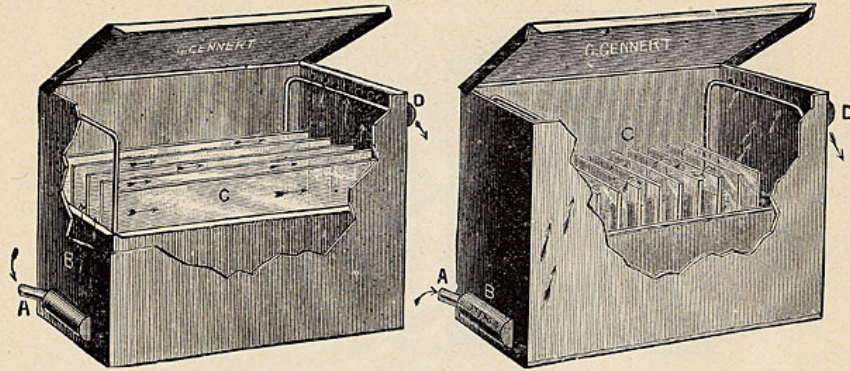
Solid German White Glass Baths.



We make a specialty of these baths, having some made from special moulds at the first factory in Germany. They are extra wide and thick, and made of specially annealed flint glass. Process workers would do well to correspond with us when desiring to purchase.

| Size. | Price. | In wooden boxes with supports | Price. |
|-----------------|---------|-------------------------------|---------|
| 5 x 7 | \$ 0.85 | ..... | \$ 2.25 |
| 7 x 9 | 1.20 | " " " | 2.90 |
| 9 x 11 | 1.80 | " " " | 4.00 |
| 11 x 14 | 3.15 | " " " | 6.30 |
| 12 x 15 | 4.75 | " " " | 7.75 |
| 15 x 20 | 10.20 | " " " | 14.20 |
| 16 1/2 x 20 1/2 | 17.00 | " " " | 21.60 |
| 18 x 22 | 25.00 | " " " | 31.50 |

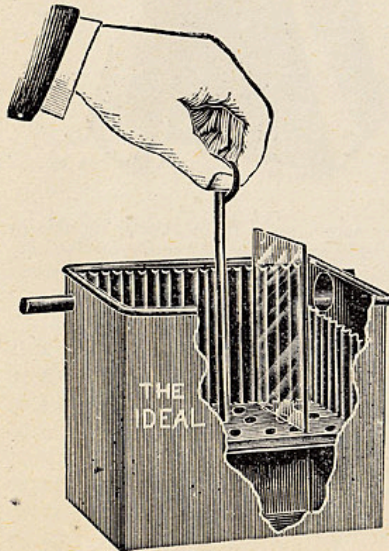
The Improved Washing Box.



Patent Applied For.

This form of Washing Box has many advantages. When used for large plates (see cut No. 1) the water enters at A through a series of holes across full width of box, and passing through an opening in the carrier at B through between the plates (arrow C) and out of holes at the top, so that there is a constant stream of water the full width of the box, and all chemicals are carried off and out. Every plate is washed thoroughly. When used for small plates (cut 2) across the narrow way of box, water enters at B, passes through opening in carrier at D, and over and under plates (as per arrow C), and then out of the box, thus giving a constant stream the full width of box, as in No. 1. When plates are washed, carrier can be taken out with all the plates, and they can be left to dry. These boxes are made in two sizes. No. 1 carries twenty-two plates, 3 1/4 x 4 1/4 or 4 1/4 x 6 1/2 in the width, or ten plates, 6 1/2 x 8 1/2 in the length. No. 2 carries twenty-two plates, 4x5, 5x7 and 5x8 in the width, on ten plates, 8x10 in the length.

Price, No. 1.....\$2.00
 Price, No. 2..... 2.25



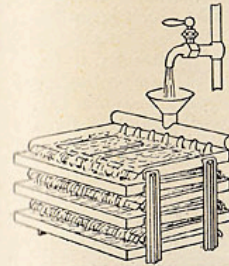
The Ideal Washing Boxes.

These boxes are made of zinc, of improved construction and are perfect washers. The water is circulated over the whole area of the box. It is fitted with a lifting bottom which is raised by means of a rod, thus rendering it an easy matter to remove plates after washing.

- No. 1, for plates 3 1/4 x 3 1/4, 3 1/4 x 4, 3 1/4 x 4 1/4.....\$1.00
- No. 2, for plates 4x5 and 5x7..... 1.15
- No. 3, for plates 3 1/4 x 4 1/4, 4 1/4 x 4 1/4 or 4 1/4 x 6 1/2 1.20
- No. 4, for plates 5x7 and 6 1/2 x 8 1/2.... 1.50
- No. 5, for plates 6 1/2 x 8 1/2 and 8x10... 1.80

The Common Sense Negative Washer.

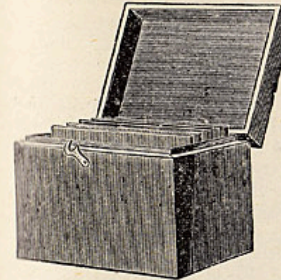
Can be Used Only Where Running Water is Available.



The most effective Negative Washer ever produced. Constructed of zinc, on common sense principles. It will thoroughly eliminate all traces of hypo from negatives, no edges or corners being left unwashed, as rapidly running water is constantly flowing over the entire surface of each negative. Each of the trays, except the top and bottom ones, are detachable for convenience in putting in and removing negatives. In use each negative is submerged under a thin covering of water, in rapid motion. The cut illustrates its construction and use.

- No. 1, for negatives 4x5 or smaller, each\$1.15
- No. 2, for 6 5x7 or 5x8 negatives, 12 4x5 or smaller... 1.50
- No. 3, for 6 8x10 or 6 1/2 x 8 1/2 negatives, or 12 5x8 or smaller 1.80

Negative Boxes.

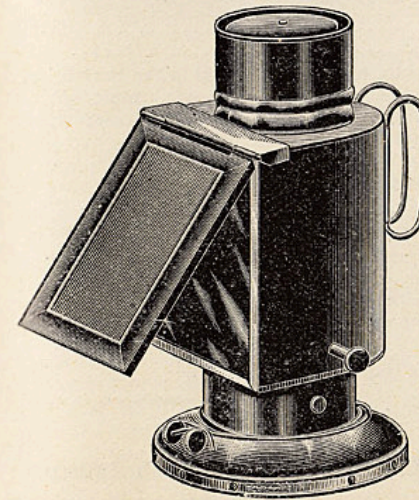


Made from selected whitewood, with hinged cover. Are exceedingly convenient for storing negatives. Each holds 24 plates.

| *Size. | Price. | Size. | Price. |
|---------------------|--------|---------------------|--------|
| 3 1/4 x 4 1/4 | \$0.55 | 5 x 8 | \$0.60 |
| 4 x 5 | 55 | 6 1/2 x 8 1/2 | 75 |
| 4 1/4 x 6 1/2 | 60 | 8 x 10 | 90 |
| 5 x 7 | 60 | 10 x 12 | 1.35 |

DARK ROOM LAMPS.

M. W. & Co.'s Garden City Ruby Lamp.



A superior lantern, combining perfect ventilation with large illuminating surface. Body is hinged to the lamp at the back, and light is controlled from the outside. Burns kerosene. Price.....\$0.85

M. W. & Co.'s Chicago Ruby Lamp.

Made upon an improved plan, giving an abundant draft and complete ventilation, hence no smoke, no fume, but a steady, safe light, and plenty of it. The front end is fitted with both orange and ruby glass. The body is hinged at the back, giving easy access to the interior. The flame is regulated entirely from the outside. The back of the lamp serves as a reflector, and aids in producing a volume of light sufficient for work in any dark room. Burns kerosene. Price.....\$1.40

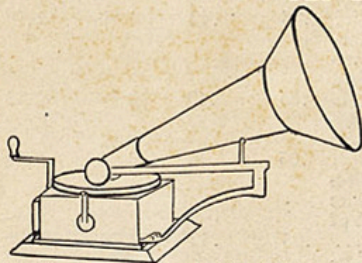
M. W. & Co.'s Folding Candle Lamp.

Strongly made, with metal frame and ruby cloth window. Collapses into a perfectly flat package, and can be carried in the pocket. Burns a candle. Price.....\$0.40

TALKING MACHINES.

We are pleased to announce that we have recently entered into an agreement with a large manufacturer of talking machines, and are in position to supply our patrons with the best machines, accessories, records, etc., on the market. To any one interested in these machines we will be pleased to mail pamphlet upon request. We direct particular attention to

The Gramophone.



The Gramophone differs in appearance and construction, and embodies a number of methods and principles different from those employed in any other talking machine. It has proven to be one of the most satisfactory talking machines on the market for entertainment purposes, it being essentially an exhibitor's machine, for use in halls of any size, large or small, as the most satisfactory results are obtained when the amplifying horn is used. Gramophone records are practically indestructible, being flat, circular in form, about

7 in. in diameter, and $\frac{1}{8}$ -in thick. One hundred of these records can be packed in a box 8 in. square and 12 in. high. The compact form and simple and substantial construction of the machine, together with the indestructible nature of the records, render the Gramophone a favorite with traveling entertainers. The Gramophone has been vastly improved, the 1898 model being provided with the new sound box, which, when the concert horn is used, gives a volume of sound sufficient to fill the largest halls, churches, etc. The tone is pure and sweet and true to the original, while the objectionable feature of blasting and harshness that applied to former models has been reduced to the minimum. The machine is operated by means of a strong spring motor, one winding of which will run two records. We recommend, however, that it be wound after each record, as by so doing the tension on the spring is even and uniform, and better results are obtained. The needles should be frequently changed, every third record being preferable. The Gramophone cannot be used for recording (making records), and Gramophone Records cannot be used with any talking machine that we quote except the Gramophone.

- 24430 Gramophone, latest model, with new sound box, concert horn and two records, in neat box. Price.....\$25.00
- 24431 Gramophone Entertainment Outfit, a money-maker, consisting of everything necessary to begin work, for either hall or parlor entertainment. It contains latest model Gramophone, with new sound box, amplifying concert horn, ear tubes, 26 records, assorted musical (vocal and instrumental) and talking, 500 admission tickets, 500 advertising posters, rubber type outfit for stamping in dates, and neat canvas covered carrying case. Price..... 40.00

Gramophone Records and Accessories.

The list of Gramophone Records, vocal, band, orchestra, solo, speaking, etc., possible to obtain is entirely too large for quotation in this catalogue. To those desiring to make their own selections we will be pleased to forward a special list of records.

- We reserve to ourselves, however, the right to substitute on records ordered, as the demand for these is so great that manufacturers cannot begin to fill their orders
- | | | |
|-------|--|--------|
| 24432 | Gramophone Records, each..... | \$0.50 |
| | " " " per dozen | 6.00 |
| 24433 | Needles, per 100 | .10 |
| | " per 1,000 | 1.00 |
| 24434 | Ear Tubes for one person, each..... | .75 |
| 24435 | " " " two " " | 1.50 |
| 24436 | " " " four " " | 3.00 |
| 24437 | " " " six " " | 4.50 |

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