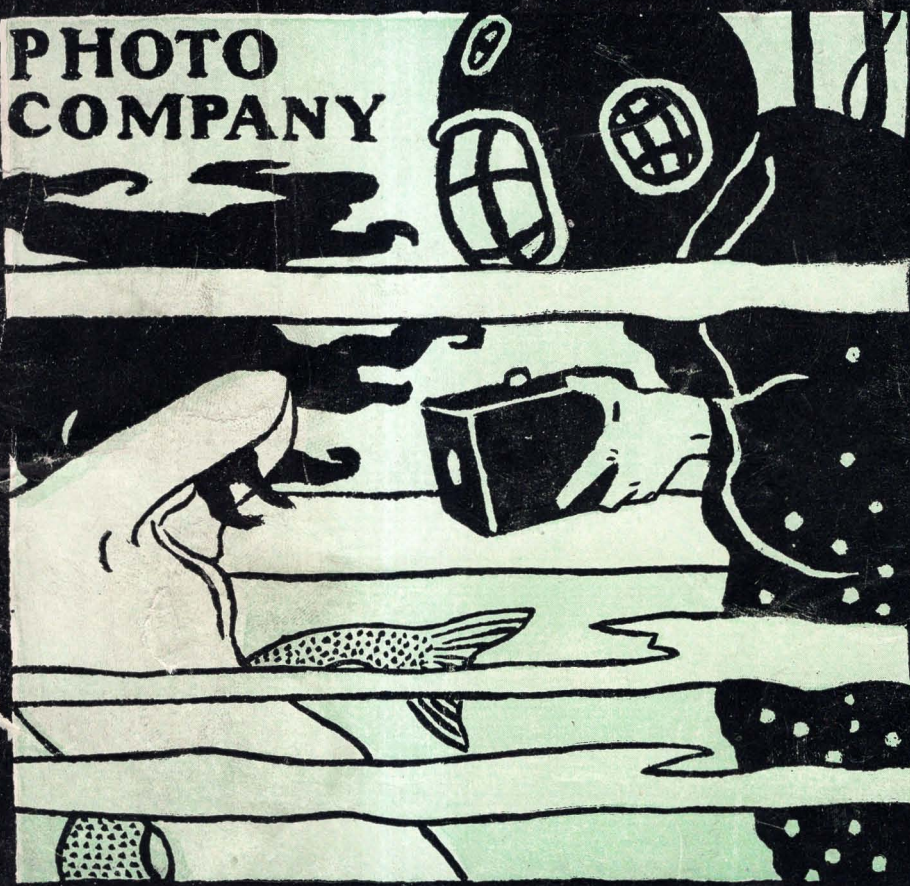


SUNART

PHOTO
COMPANY



ROCHESTER N·Y·U·S·A·

SUNART

PHOTO CO.

ROCHESTER, N. Y., U. S. A.

1899

PRESS OF E. R. ANDREWS,
ROCHESTER, N. Y.



INTRODUCTORY

It has been our honest effort to give to the public a reliable and unquestionably meritorious Camera. That our efforts have been successful is attested in a substantial manner by the steady and gratifying increase in the demand for our product during the past year. However, we are not content to rest upon laurels won, but are ever on the alert for the discovery of the latest needs of the amateur photographer, if, indeed, our cameras leave any to be desired. We believe the SUNART to be the embodiment of everything that can be wished for in a camera.

We exact from the purchaser no tribute to our reputation in the matter of price. We started in to give the people a popular camera at a popular price and shall maintain this purpose throughout. The results have amply justified the undertaking.

The SUNART cameras are the result of much thought and practical observation, the object in view being the elimination of all features proven by practice and experiment to be superfluous or objectionable, and the adoption of such only as will facilitate the art of amateur photography, with the greatest economy of time, labor, expense and patience. This has been accomplished by the employment of the more recently developed scientific principles and appliances in camera manufacturing.

Careful and painstaking attention to constructive detail, together with their combined features of excellence, including their symmetrical and handsome lines, have earned for the SUNART cameras the appreciation and admiration of every amateur photographer. In the matter of quality and popularity, they occupy an enviable position in the front rank.

The veriest novice will find that in compactness, ease and simplicity of operation, and general all-around characteristics, the SUNART cameras meet all requirements. The professional or advanced amateur will quickly recognize their points of superiority, and will readily concede our claims for them.



Sunart Vici.



The VICI cases are made of thoroughly seasoned mahogany of finest grain, to which a high polish may be imparted, and are incased in a fine quality of morocco grain leather. A substantial handle affords a convenient means of carrying, and, if desired, a carrying case, with shoulder strap attached, can be supplied, affording protection for the camera.

BELLOWS.—The cone bellows are the product of the best material and workmanship. The focal capacity is adequate to the demands of the several sizes, and the structure is sufficiently strong to prevent sagging.

FOCUS.—For the regulation of the focus we have adopted both the cam and the rack-and-pinion, enabling a close and accurate adjustment.

The front has both a vertical and a lateral movement, with a coincident movement of the bellows, which secures the exposure of the entire plate and makes it impossible to cut off the corners.

The ground glass swings operate both vertically and horizontally, and are adjusted to the center with absolute optical correctness. They have a cam lock and can be delicately adjusted. The ground glass is spring-actuated, and may be removed for the insertion of a roll-holder.

It has a graduated focusing scale, celluloid, in black characters.

BED.—The bed is sustained, when let down, by strong brass pendants which play on brass bolts. It is held firmly in place by eccentric notches,

obviating any springing or "jiggling" motion. In the $6\frac{1}{2} \times 8\frac{1}{2}$ size the bed drops down for the use of a wide-angle lens.

To open the camera it is necessary only to press a button, releasing a spring which throws the bed forward, allowing it to drop into position. The springs are of phosphor-bronze and impinge upon the brass braces or pendants, instead of the polished surface of the bed, as in some other makes.

In the center of the bed are the brass ways or guides, through which the focus extension-slides, supporting the front, move back and forth. These are strong and accurately fitted, so that when the bellows are extended, as for the use of a long-focus lens, the front remains rigid.

FINDER.—This important adjunct is accurately made and is adjusted to perfect alignment. It is fitted with clear and strong lenses, and also has a metal hood, which may be used as a shade when in use, intensifying the object. The finder is reversible.

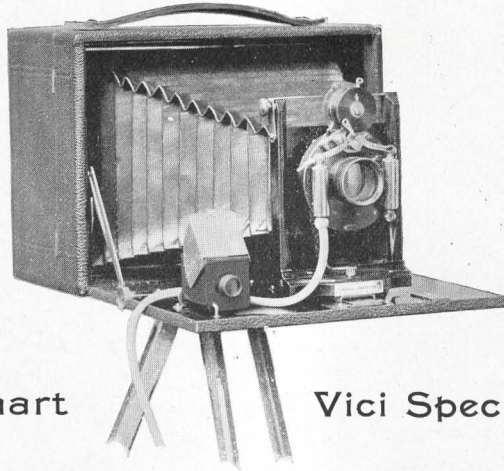
LENSES.—The Vici Rapid Rectilinear lenses used in these cameras are manufactured especially for us by the Bausch & Lomb Optical Co., which is the strongest guaranty we can give of their superior excellence. While there are higher priced lenses, we maintain that, in quality, ours is second to none. This is our standard lens, but we will furnish any other that may be desired. (*See price list, page 47.*)

SHUTTERS.—We use our Vici noiseless safety shutter, full description of which is given on page 50. This shutter may safely be set without fear of prematurely exposing the plate.

SPACE.—At the back of the camera is sufficient space for carrying three double plate-holders, enough for six exposures.

TRIPOD.—The camera contains screw sockets for attaching tripod, and may be used for taking vertical or horizontal views.





Sunart

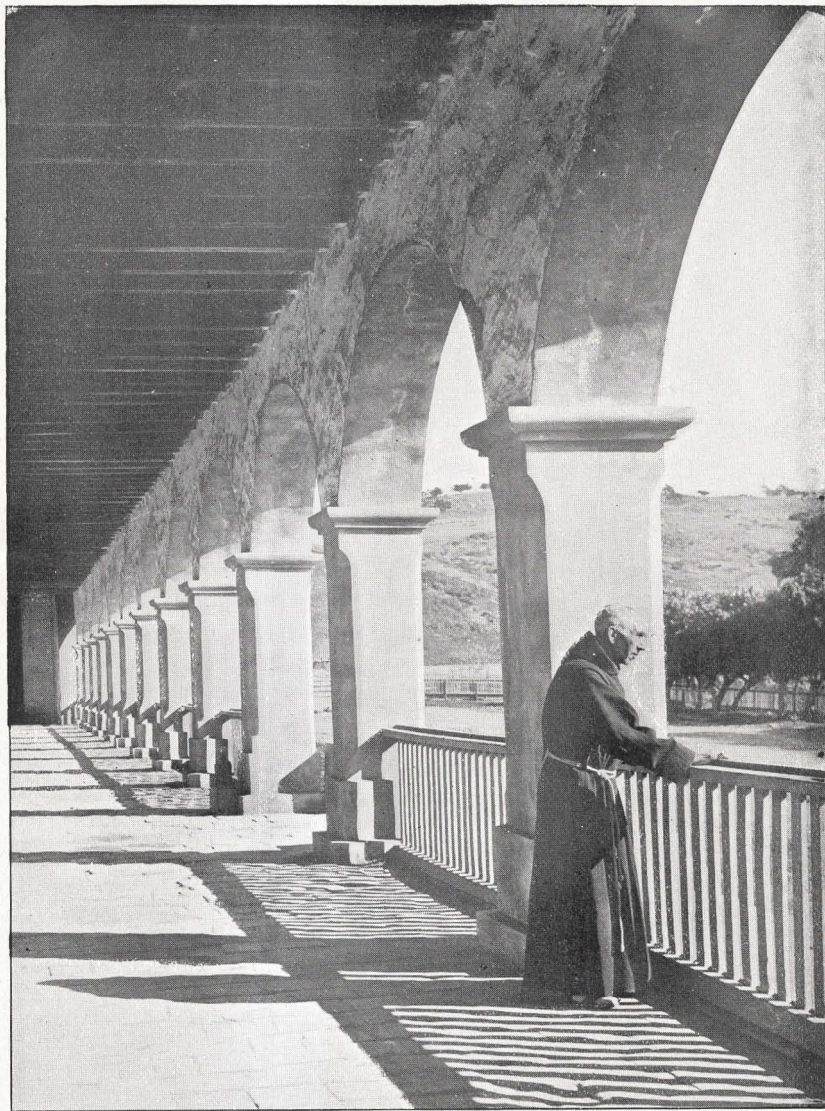
Vici Special

Features:

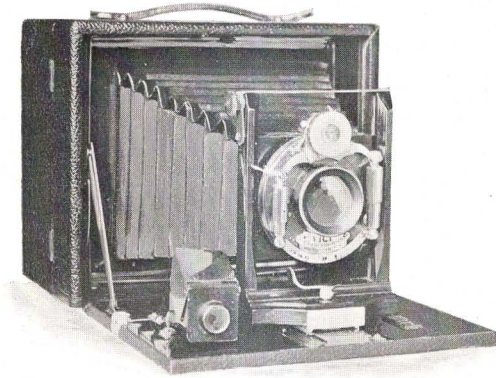
- ZEISS ANASTIGMAT LENS, IIA. (See page 48.)
- B. & L. IRIS DIAPHRAGM SHUTTER.
- SUPERIOR QUALITY CONE BELLOWS.
- COMBINED CAM AND RACK-AND-PINION FOCUS.
- VERTICAL AND LATERAL MOVEMENT OF FRONT.
- VERTICAL AND HORIZONTAL ADJUSTMENT OF SWINGS.
- ACCURATE FOCUSING SCALE.
- REMOVABLE GROUND GLASS.
- FIRM AND RIGID BED.
- EXTENSION BED FOR LONG FOCUSING.
- PERFECTLY ALIGNED HOODED, REVERSIBLE FINDER.
- HIGHEST GRADE OF WORKMANSHIP.
- COMPACT, STRONG AND LIGHT.

PRICES:

Size, 6½ x 8½,	\$103.00
“ 5 x 7,	84.00
“ 4 x 5,	67.00
Above includes one Plate Holder. Extra Holders, \$1.50, \$1.25 and \$1.00.	
Kodak Roll Holder for 5 x 7,	\$12.50
“ “ “ 4 x 5,	10.00
“ “ “ 4 x 5 (Daylight),	5.00
Leather Carrying Case, with Shoulder Strap, \$3.50, \$3, and \$2.50, for the respective size.	



SANTA BARBARA MISSION.



Sunart Vici.

Features:

RAPID RECTILINEAR LENS.
 VICI SAFETY SHUTTER.
 ADJUSTABLE LENS MOUNT FOR WIDE ANGLE LENS.
 EXTENSION CONE BELLOWS.
 COMBINED CAM AND RACK-AND-PINION FOCUS.
 VERTICAL AND LATERAL ADJUSTMENT OF FRONT.
 GRADUATED FOCUSING SCALE, ACCURATE.
 PERFECTLY ALIGNED REVERSIBLE HOODED FINDER.
 VERTICALLY AND HORIZONTALLY ADJUSTABLE SWINGS.
 REMOVABLE GROUND GLASS.
 SECURE AND FIRM BED.
 EXTENSION BED FOR LONG FOCUSING.
 HIGHEST GRADE OF WORKMANSHIP.
 COMPACT, STRONG AND LIGHT.

PRICES:

Size, $6\frac{1}{2} \times 8\frac{1}{2}$,	\$50.00
“ 5 x 7,	40.00
“ 4 x 5,	30.00

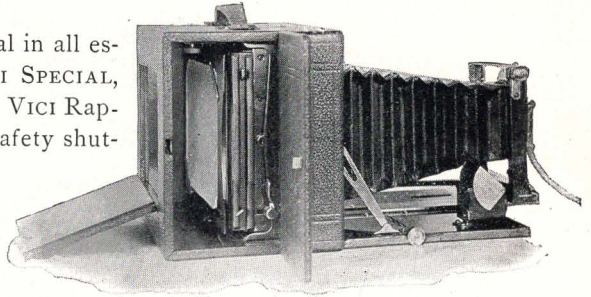
Includes one Plate Holder. Extra Holders, \$1.50, \$1.25 and \$1.00.
 Above prices include Vici Safety Shutter. For B. & L. Iris Dia. Shutter, add \$10

WIDE ANGLE LENS.

For $6\frac{1}{2} \times 8\frac{1}{2}$,	\$15.00
“ 5 x 7,	12.50
“ 4 x 5,	10.00

Roll Holder, for 5 x 7 and 4 x 5, \$12.50 and \$10.00.

The SUNART VICI is identical in all essential particulars with the VICI SPECIAL, except that it is equipped with a VICI Rapid Rectilinear lens and a VICI safety shutter of the '99 pattern; whereas the VICI SPECIAL is equipped with a Zeiss Anastigmat lens, series IIa, and a Bausch & Lomb Iris Diaphragm shutter.

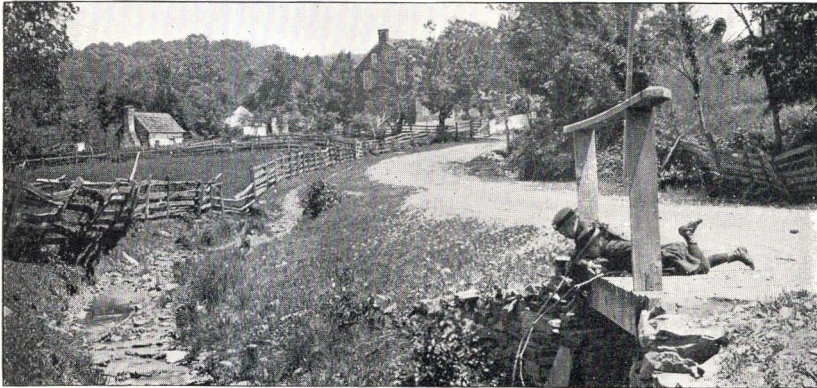


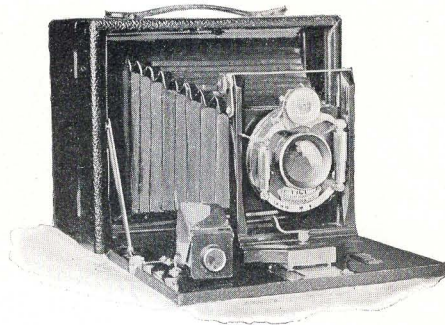
The technical difference is elsewhere explained. The VICI lens mount is so constructed that a wide-angle lens may be substituted if desired.

The statement that "it's all in the lens" is not true in a strict sense, yet the quality of the lens, as bearing on the result of the work, is a most important consideration. While good results may be obtained with an inferior camera equipped with a good lens, those results cannot possibly be achieved by the best camera in the world if it were equipped with a poor lens. Our lenses are uniformly good.

There are many important factors in a camera besides the lens, and while we do not claim to possess them all, we do claim to unite more good features in the VICI than are contained in any camera of same grade.

In style, workmanship, effectiveness and reliability the VICI is unapproachable, and its combined features of excellence render it a more desirable camera than any other now on the market for the price.





Sunart Vici No. 1.

Features:



RAPID RECTILINEAR LENS.
 VICI RAPID SHUTTER, '99 MODEL.
 EXTENSION CONE BELLOWS.
 COMBINED CAM AND RACK-AND-PINION FOCUS.
 GRADUATED FOCUSING SCALE.
 VERTICAL AND LATERAL ADJUSTMENT OF FRONT.
 PERFECTLY ALIGNED REVERSIBLE HOODED FINDER.
 HORIZONTALLY ADJUSTABLE SWING.
 REMOVABLE GROUND GLASS.
 SECURE AND FIRM BED.
 EXTENSION BED FOR LONG FOCUSING.
 HIGHEST GRADE OF WORKMANSHIP.
 COMPACT, LIGHT AND STRONG.

PRICES:

Size, 5 x 7, . . . \$32.00 Size, 4 x 5, . . . \$25.00
 Includes one Plate Holder. Extra Plate Holders \$1.25 and \$1.00, respectively.

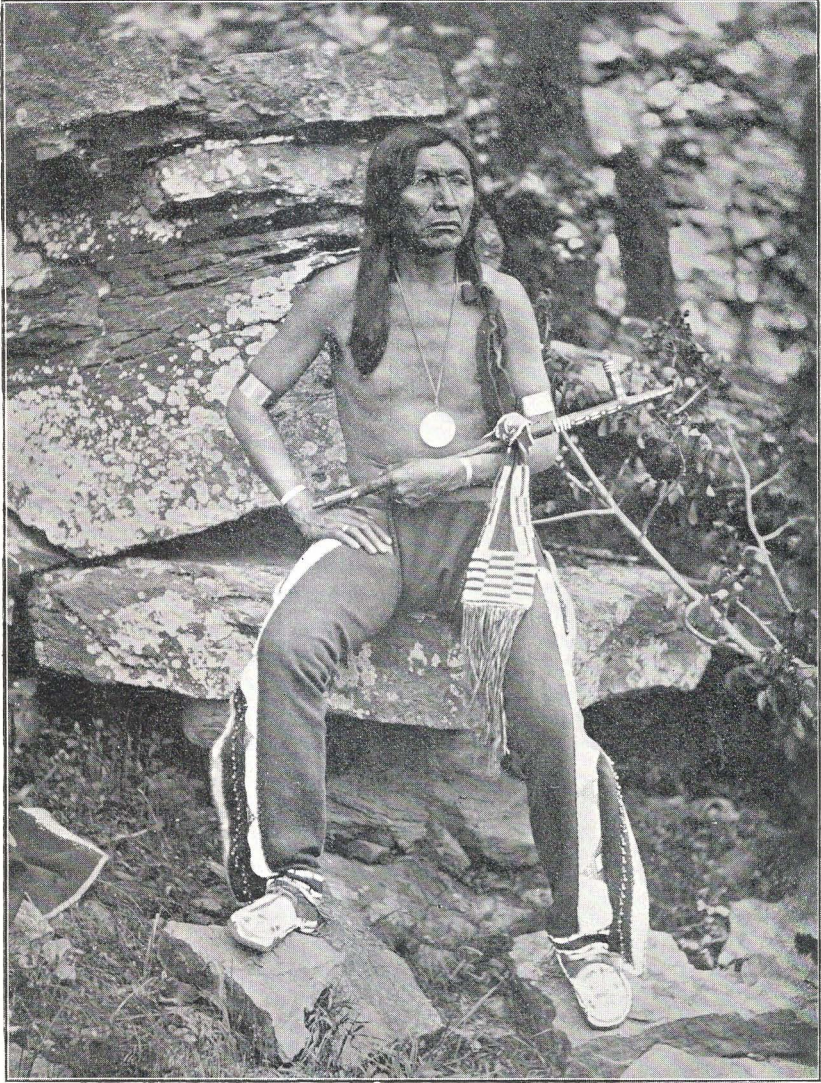
WIDE ANGLE LENS.

For 5 x 7, . . . \$12.00 For 4 x 5, . . . \$10.00

ROLL HOLDER.

For 5 x 7, . . . \$12.50 For 4 x 5, . . . \$10.00

The VICI No. 1 is practically the same as the VICI, being honestly and conscientiously made, and embodying all the features of the Sunart line. The only difference is in the limited movement of the swing, which is adjustable horizontally only.



ARAPAHOE INDIAN



Sunart Cycle Vici.



Features:

VICI RAPID RECTILINEAR
LENS.

VICI SAFETY SHUTTER, '99
MODEL.

EXTENSION CONE BELLOWS.
COMBINED CAM AND RACK-
AND PINION FOCUS.

GRADUATED FOCUS'G SCALE.
VERTICAL AND LATERAL AD-
JUSTMENT OF FRONT.

PERFECTLY ALIGNED REVER-
SIBLE HOODED FINDER.

HORIZONTALLY ADJUSTABLE
SWING.

REMOVABLE GROUND GLASS.
SECURE AND FIRM BED.

EXTENSION BED, FOR LONG
FOCUSING.

AUTOMATIC BACK DOOR
CURTAIN.

ADJUSTABLE SPRING.

HIGHEST GRADE OF WORK-
MANSHIP.

COMPACT, STRONG, LIGHT.

PRICES:

Size, 5 x 7, \$32.00

" 4 x 5, 25.00

WIDE ANGLE LENS.

Size, 5 x 7, \$12.00

" 4 x 5, 10.00

Extra Plate Holders for the respec-
tive sizes, \$1.25, \$1.00 each.

Bicycle Clamp, for either size, \$1.

Half the pleasure of a bicycle spin, especially if it happen to be one of more than ordinary distance, is in the recalling of the memory of certain events or circumstances associated with it—a picturesque rill or cascade where we bathed our heated brow; a leafy nook by the roadside, beneath whose cooling shadow we rested and drank in the fresh country air; the statuesque pose of a field of sheep or kine, and a thousand and one sketchy bits of nature that strike our artistic fancy.

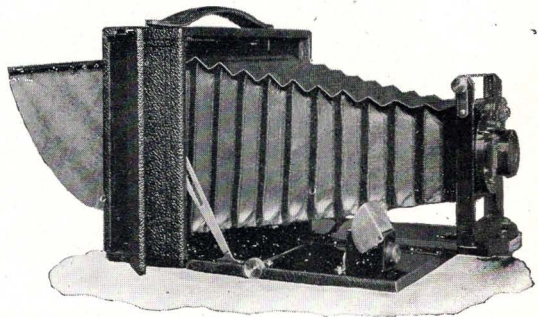
The camera has come to be an almost indispensable companion of the cyclist, and to meet the growing demand in this line we have devised the CYCLE VICI, which, owing to its lightness, simplicity, compactness, and wide range of adaptability, has become the universal favorite. The inventor, himself an enthusiastic cyclist and view taker, has studied to embody in this instrument all those advantageous features which his experience and observation have proven to be both desirable and necessary.

In addition to the features outlined in the foregoing descriptions it is fitted with a combined back and swing, which is spring actuated. The back is so nicely fitted that no ray of light can reach the plate. It is removable, permitting free insertion of a roll holder. The back door is fitted with automatically adjustable curtains, obviating the bother and annoyance of a focusing cloth. When the door is closed, the curtains fold upon the ground glass, protecting it from breakage. Every spring in this camera is easy of access and the tension of any can be increased or diminished at will.

It is fitted with two tripod screw sockets, and by means of an ingenious clamp arrangement, may be mounted on the frame of the bicycle, in lieu of a tripod, for time exposure.

The front of the camera is like its predecessors, having VICI Rapid Rectilinear lens, VICI Safety shutter, hooded reversible finder, graduated focusing scale, vertical and lateral movement of lens mount, rack-and-pinion and cam focusing device, extension bed. The sizes, weights and dimensions are as follows:

Size.	Weight.	Dimensions.
5 x 7	50 oz.	9 x 2 $\frac{3}{4}$ x 6 $\frac{3}{4}$
4 x 5	37 $\frac{1}{2}$ oz.	7 x 2 $\frac{3}{4}$ x 5 $\frac{1}{2}$





Sunart Cycle Vici No. 1.

Features:



VICI RAPID RECTILINEAR LENS.
 VICI SAFETY SHUTTER.
 EXTENSION CONE BELLOWS.
 COMBINED CAM AND RACK-AND-PINION FOCUS.
 GRADUATED FOCUSING SCALE.
 VERTICAL AND LATERAL ADJUSTMENT OF FRONT.
 PERFECTLY ALIGNED REVERSIBLE HOODED FINDER.
 REMOVABLE GROUND GLASS.
 AUTOMATIC BACK DOOR CURTAIN.
 ADJUSTABLE SPRINGS.
 WATERPROOF CASE COVERING.
 SECURE AND FIRM BED.
 EXTENSION BED FOR LONG FOCUSING.
 HIGHEST GRADE OF WORKMANSHIP.
 COMPACT, STRONG AND LIGHT.

PRICES:

Size, 5 x 7, . . . \$27.00 Size, 4 x 5, . . . \$22.00

Without Automatic Back Door Curtain:

Size, 5 x 7, . . . \$24.00 Size, 4 x 5, . . . \$20.00

Extra Plate Holders, for the respective sizes, \$1.25 and \$1.00 each.

The SUNART CYCLE VICI NO. 1 is smaller than the CYCLE VICI, described in the foregoing, and is even more compact. It possesses all the essential features of the SUNART cameras, the front being a reduced duplication in every particular. Though small and light it is nevertheless strong and designed for practical everyday use.

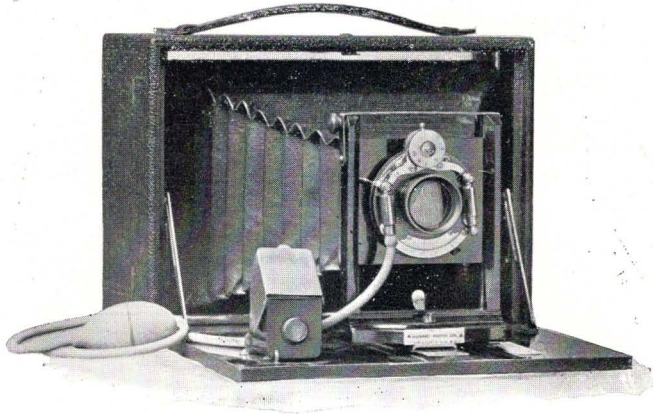
The case and bed are made of selected mahogany, like all our other cameras, and its covering is uniformly black, although they can be furnished in tan on application and without additional cost.

The Back possesses all the features of the CYCLE VICI (*see description on preceding page*) except that it is not provided with a swing.

There need be no fear of getting caught in a shower with this camera, as the case covering is water-proof, and would suffer no damage from that source.

Accompanying the camera, and included in the price, is a carrying case, with shoulder strap, having a receptacle for three double plate holders. These, with one in the camera, gives the operator eight exposures. If desired the case can be furnished to strap to the bicycle frame instead of carrying it by the shoulder strap.





Sunart Vidi.

Features:



RAPID RECTILINEAR LENS.
 VICI SAFETY SHUTTER, '99 MODEL.
 EXTENSION CONE BELLOWS.
 CAM FOCUSING DEVICE.
 GRADUATED FOCUSING SCALE.
 VERTICAL AND LATERAL ADJUSTMENT OF FRONT.
 PERFECTLY ALIGNED REVERSIBLE HOODED FINDER.
 HORIZONTALLY ADJUSTABLE SWING.
 REMOVABLE GROUND GLASS.
 SECURE AND FIRM BED.
 EXTENSION BED FOR LONG FOCUSING.
 HIGHEST GRADE OF WORKMANSHIP.
 COMPACT, STRONG, AND LIGHT.

PRICES:

Size, 5 x 7, . . . \$25.00 Size, 4 x 5, . . . \$20.00

ROLL HOLDER.

Size, 5 x 7, . . . \$12.50 Size, 4 x 5, . . . \$10.00

Extra Plate Holders, \$1.25 and \$1.00 respectively.

Leather Covered Carrying Case, with Shoulder Strap, 5 x 7, \$3.00; 4 x 5, \$2.50

The SUNART VIDi is made only in the above sizes.

To meet the requirements of the trade and to afford a moderate priced camera for those whose enthusiastic devotion to the sun-art of photography exceeds their means or possibilities of indulging in it, we have put upon the market the SUNART VIDI, one of the best all around cameras extant.

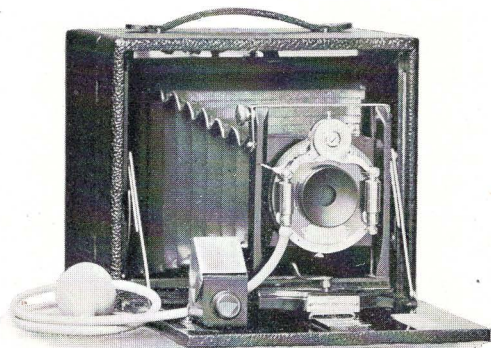
So far as concerns the results possible to be achieved, this is a by no means inferior instrument, it being possible to make as good views with it as with most of the higher priced cameras.

The reduced price has not been effected by the employment of inferior material or workmanship, as may be supposed, but by the elimination of certain features of convenience only, and a reduction in size.

The VIDI is equipped with a Rapid Rectilinear lens and Vici Safety shutter, '99 model, with Iris diaphragm and pneumatic trip. It has a cam focus, operating on a central slide, and the lens mount has the same range of adjustment as has the VICI. The swings have a compound motion and the ground glass mount is spring actuated and removable for insertion of a Roll Holder.

For those whose opportunities of view taking are so limited as not to warrant a more expensive instrument, the VIDI is confidently commended as meeting all demands.





Sunart Vidi No. 1.



Features :

SUNART R. R. LENS.
 VICI SAFETY SHUTTER, '99 MODEL.
 CONE BELLOWS.
 CAM FOCUSING DEVICE.
 GRADUATED FOCUSING SCALE.
 VERTICAL ADJUSTMENT OF FRONT.
 PERFECTLY ALIGNED REVERSIBLE HOODED FINDER.
 VERTICALLY AND HORIZONTALLY ADJUSTABLE SWING.
 REMOVABLE GROUND GLASS.
 SECURE AND FIRM BED.
 HIGHEST GRADE OF WORKMANSHIP.
 COMPACT, LIGHT AND STRONG.

The VIDI NO. 1 is almost identical with the VIDI except that it is fitted with Sunart R. R. lens, which gives good definition, speed, depth of focus, and covering capacity. It is well constructed and combines the desirable features of the SUNARTS, with some slight modifications necessary to bring it within the limits of its class.

PRICES:

Size, 5 x 7, . . . \$23.00. Size, 4 x 5, . . . \$16.00

ROLL HOLDERS.

Size, 5 x 7, . . . \$12.50 Size, 4 x 5, . . . \$10.00

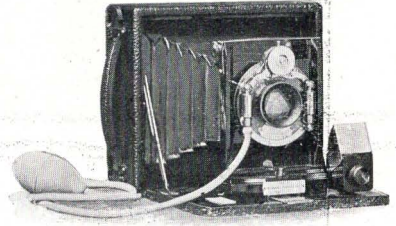
Extra Plate Holders, \$1.25 and \$1.00 respectively.

Leather Covered Carrying Case, with shoulder strap, 5 x 7, \$3.00; 4 x 5, \$2.50.

The Vici No. 1 is made only in above sizes.



Sunart Cycle Vidi.



Features:

RAPID RECTILINEAR LENS.
 VICI SHUTTER, '99 MODEL.
 EXTENSION CONE BELLOWS.
 CAM FOCUSING DEVICE.
 GRADUATED FOCUSING SCALE.
 VERTICAL AND LATERAL ADJUSTMENT OF FRONT.
 PERFECTLY ALIGNED REVERSIBLE HOODED FINDER.
 REMOVABLE GROUND GLASS.
 ADJUSTABLE SPRINGS. SECURE AND FIRM BED.
 EXTENSION BED FOR LONG FOCUSING.
 HIGHEST GRADE OF WORKMANSHIP.
 COMPACT, LIGHT AND STRONG.

PRICES:

Size, 5 x 7, . . . \$23.00 Size, 4 x 5, . . . \$18.00

ROLL HOLDER.

Size, 5 x 7 (48 exposures), \$12.50 Size, 4 x 5 (48 exposures), \$10.00

Extra Plate Holders, \$1.25 and \$1.00 respectively.

Bicycle Clamp, either size, \$1.00. Made only in above sizes.

Leather Carrying Case, with Shoulder Strap, \$2.50 and \$2.00.



This is the Sunart bicycle pattern adapted to the possibilities of those requiring a moderate priced instrument for the wheel. It is identical with the CYCLE VICI in all essentials, except that it has no rack-and-pinion focus. The lens is a Rapid Rectilinear. The shutter is equipped with the automatic retarding device, the exposure being con-

trolled by the finger trip, or by pneumatic bulb.

The 1899 VIDI is equipped with the VICI Safety shutter, the trip being released either pneumatically or by the finger. It also has the Iris Diaphragm.

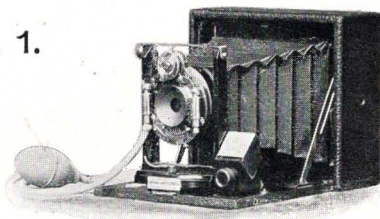
It is in every way an ideal camera, at a very moderate price.



Sunart Cycle Vidi No. 1.



The SUNART CYCLE VID I is a counterpart of the CYCLE VID I with the exception of being equipped with SUNART R. R. lens instead of the Rapid Rectilinear lens. The shutter is the same as that with which the VIC I is equipped. For practical and reliable work, giving most satisfactory results, the CYCLE VID I cannot be excelled. The cases are waterproof and can be furnished in either black or chocolate tan.



Features:

- SUNART R. R. LENS.
- VICI SHUTTER '99 MODEL.
- CONE BELLOWS.
- CAM FOCUSING DEVICE.
- GRADUATED FOCUSING SCALE.
- VERTICAL ADJUSTMENT OF FRONT.
- PERFECTLY ALIGNED REVERSIBLE HOODED FINDER.
- REMOVABLE GROUND GLASS.
- BACK DOOR.
- ADJUSTABLE SPRINGS.
- SECURE AND FIRM BED.
- HIGHEST GRADE OF WORKMANSHIP.
- COMPACT, STRONG, AND LIGHT.

PRICES:

Size, 5 x 7,	\$22.00
Size, 4 x 5,	\$14.00

ROLL HOLDER.

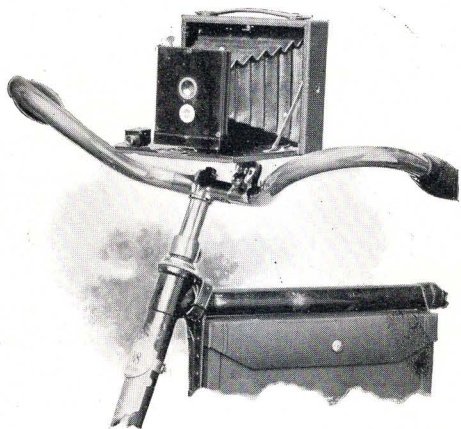
Size, 5 x 7 (48 Exposures)	\$12.50
Size, 4 x 5	\$10.00

Extra Plate Holders, \$1.25 and \$1.00 respectively. Fibre, 4 x 5, 75 cents.

Bicycle Clamp, either size, \$1.00.

Leather Covered Carrying Case, with shoulder straps, \$3.00 and \$2.50.

Sunart
Cycle

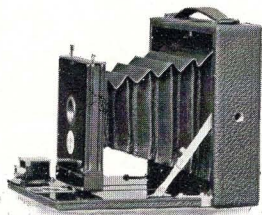


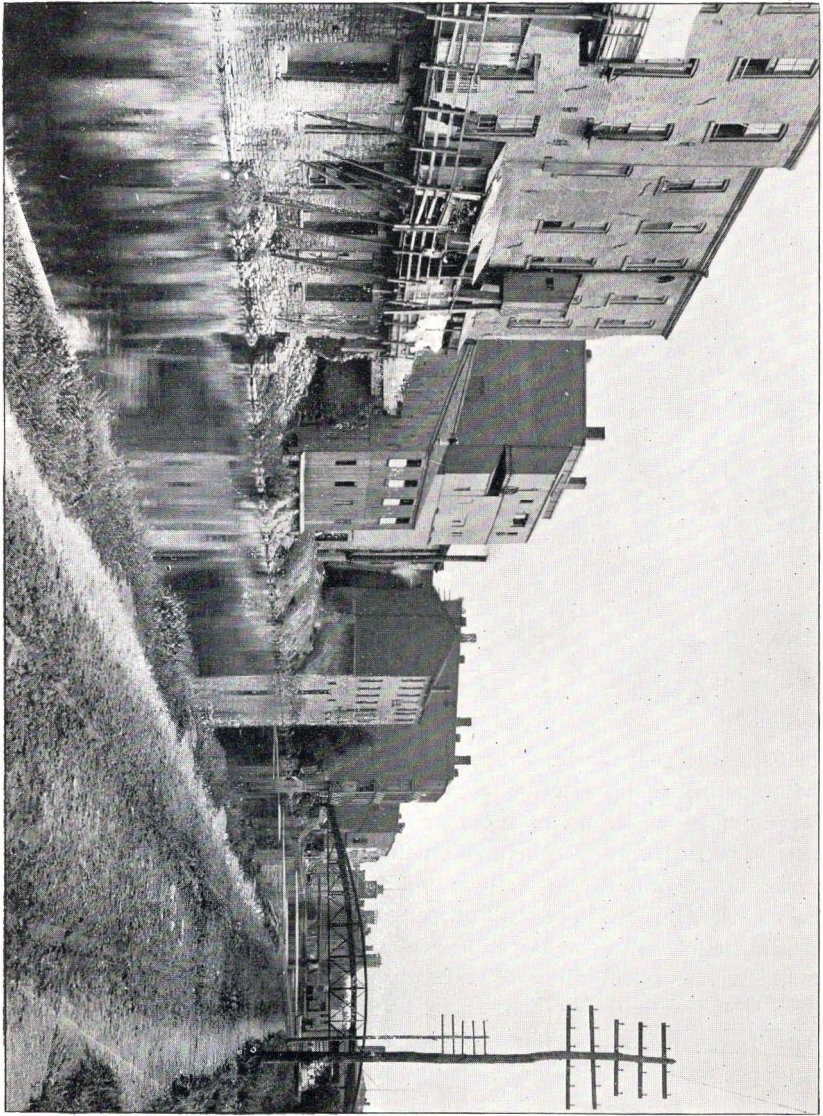
Vidi
No. 2.

This is not a toy, but is the smallest practical camera ever introduced, its dimensions being 5 x 6 x 1 $\frac{3}{8}$ inches, making a 4 x 5 picture. All its working parts are perfect and are designed for the greatest economy of space, maximum of strength, and efficiency of operation. It is almost a prototype of the larger SUNART cameras, being made of choice mahogany and covered with leather, in either tan or black. It has extension cone bellows, hinged bed, with automatic locking pendant braces, reversible finder, automatic back door, removable back for insertion of roll holder, adjustable shutter and diaphragm, two tripod screw sockets for vertical or horizontal views, and spring locking slide. It is fitted with a single achromatic lens, self focusing from six feet upward, cutting clear and sharp.

No other camera of its size and capacity embraces so many desirable features—it is, in fact, a *multum in parvo*. It can be carried in the pocket, on the wheel, in the hand-bag or anywhere else without inconvenience. As an emergency camera it is unapproachable.

Price, including carrying case with shoulder strap, and one double plate-holder, \$8.00. Extra plate-holders, 75c. Bicycle clamp, \$1.00.



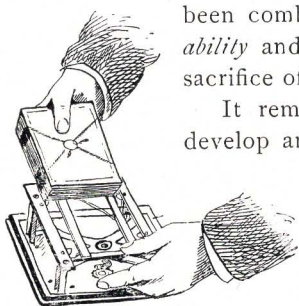




Sunart Magazine Camera.



Hitherto the desideratum among not only camera manufacturers but camera users as well, has been a magazine camera of maximum capacity combining minimum weight. Whenever these paramount features have been combined it has been at the expense of *simplicity*, *reliability* and *accuracy* of operation; and not infrequently at the sacrifice of the best results.



It remained, however, for the Sunart Photo Company to develop and perfect an instrument in which these two important features should be preserved without any diminution of the value of the camera as a whole, and by which the most satisfactory results could be achieved.

The tourist or camera enthusiast whose taste leads him to the choice of a plate instrument, very often finds himself hampered in the projection of plans for a long trip or the making of a large number of views, by the inconvenient necessity of carrying extra plates, adding weight to his equipment, increasing risk of breakage, and being, on the whole, cumbersome and annoying. In the SUNART MAGAZINE CAMERA these important objections have been entirely overcome.

Inasmuch as in the larger sizes the film is apt to curl, this camera is made exclusively in one size, 4 x 5, and its dimensions are $5\frac{5}{8}$ inches wide, $6\frac{3}{4}$ inches high and $10\frac{1}{2}$ inches long. It is made of selected mahogany, with polished front, and is covered with morocco grain leather. It is equipped with two view finders and two tripod screw sockets, for either

horizontal or vertical views. The focusing is done by means of an aluminum wheel with a wide periphery, on which are indicated the distance figures—from six up to one hundred feet.

The lens, a Bausch & Lomb, has a remarkable depth of focus, flatness of field and clearness of definition of detail.

The shutter is a marvel of ingenuity and simplicity, and operates by means of a small lever.

The capacity is ample, the complement being twenty-four films, the loading of which is simplicity itself, the operation consisting only in placing the package of films in the magazine or holder, as shown in the illustration.

At each successive exposure the exposed film drops to the bottom of the camera, where it is automatically clamped to prevent injury from shuffling about. An ingeniously devised septum or partition effectually protects it from any ray of light after once being exposed and deposited in the receptacle.

The operation of this camera is *absolute*. It works every time.



There are no skips, no blank exposures, no double exposures on a single film, if operated according to directions. There is nothing about it to get out of order and such is its simplicity that a child can operate it.

PRICES :

SUNART MAGAZINE CAMERA complete, as per above description,	\$35.00
Film, loaded in packages of twenty- four,	1.80
Leather covered Carrying Case, with Shoulder Strap,	2.50
Sole Leather Carrying Case, with Shoulder Strap,	3.00

Sunart Junior,
Junior No. 1,
Junior No. 2.

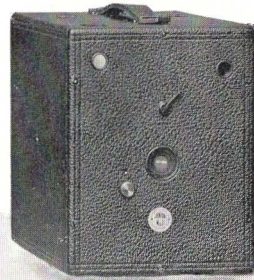




$3\frac{1}{2} \times 3\frac{1}{2}$



$3\frac{1}{4} \times 4\frac{1}{4}$



4×5

The expense of amateur photography, while not great, still so serious an obstacle to many, need no longer be considered by those who have hitherto been denied this pleasure. The SUNART JUNIOR places within reach of all the opportunity and possibility of pursuing this pleasantest of pastimes.

Notwithstanding the low price of these instruments they are constructed with painstaking care and the material used is of the best. The lens is achromatic. No focusing is required, the focus being fixed from eight feet upward, with sufficient length to obviate any possibility of distortion. The shutter is adjustable to either time or instantaneous exposure, is simple, and can be set without fear of prematurely exposing the plate. No other manufacturer offers so much for the money, and only the possession of this valuable invention (our own) enables us to do so.

The finders are accurately aligned and focused and are dust proof. The JUNIOR and JUNIOR No. 1 holders have hard rubber slides.

The JUNIOR makes a square picture, sizes as indicated beneath the above illustrations, and views may be taken diagonally if desired.

Each JUNIOR camera contains sufficient space for carrying six double plate-holders, giving a capacity of twelve exposures. The JUNIOR Nos. 1 and 2 carry three double holders, the smallest and most compact holders made.

PRICES:

Sunart Junior (including one double plate holder for pictures $3\frac{1}{2} \times 3\frac{1}{2}$),	\$5.00
Sunart Junior No. 1 (one double plate holder for pictures $3\frac{1}{4} \times 4\frac{1}{4}$),	5.00
Sunart Junior No. 2 (one double plate holder for pictures 4×5),	5.00
Extra Plate Holders, each,	1.00
Developing and Printing Outfits for Junior or Junior No. 1, complete,	1.50
Developing and Printing Outfits for Junior No. 2,	2.00

Plate Holders.



One of the most important accessories in the equipment of a camera, and one that, next to the camera and lens, is entitled to the greatest consideration, is the Plate-Holder; for unless it is made upon correct principles much of the labor and effort of the operator goes for naught and the pleasure of his pursuit is destroyed.

Practical experience and observation have taught us what qualities an ideal plate-holder should possess, as well as what should be eliminated to insure its perfectness. The result has been the production of a holder unequalled.



A double plate-holder should be strong, durable, compact; and as light as compatible with these features. Our plate holders are made from cherry, selected with reference to strength and evenness of the grain, well seasoned and finished in oil. The grooves are accurate, and smooth inside, insuring freedom of action.

The bead is shallow, leaving but one-eighth inch of unexposed margin on the bottom of the plate, the full width of which is submitted to the action of the light.

The vulcanized rubber slides are hard, tough, and pliant, and they always hold their shape. To meet a certain demand we are now furnishing a high grade press-board slide.

Those manufacturers who depend upon a "tight fit" to hold their slides in place are often defeated in their purpose by the action upon the wood of the weather, which may make them too tight to use or so loose as to permit them to drop out, spoiling the plate. Our slides are secured by a simple catch, preventing any such accident. The heads are so protected that they cannot pull off.



The sensitive dry plate is loaded by drawing the hard rubber slide and pressing the end of the plate on the spring in the bottom of the holder. A slight pressure on the end of the plate slides it easily into place, where it is held securely by the spring pressing it against the beveled edge at the top of the holder. Whether the plate be thick or thin it is always in the focal plane. To remove the plate from the holder, press the spring with the thumb and it will drop out. There are no double plate holders upon the market which can be loaded or unloaded more easily.

The plate-holders for the JUNIOR series are so compact that a number of them can be carried in the pocket. They also have hard rubber slides with metal tops and locking device. Upon one side of the slide are etched the words "SUNART JUNIOR" or "SUNART JUNIOR NO. 1," as the case may be. When loading, the etched side is placed *next the plate*; after the exposure it is placed *outside*. By this plan a re-exposure is guarded against. Memoranda of the subject may be written upon the slide.

PRICES:

Size.	Hard Rubber.	Press Board.
6½ x 8½,	\$1.50	\$1.25
5 x 7.	1.25	1.00
4 x 5,	1.00	.75

The 4 x 5 and 5 x 7 roll-holders are adapted to cartridge or light-proof film, and can be loaded in daylight.

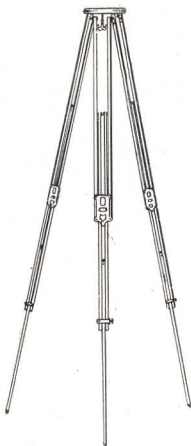


Sunart Tripods.



Sliding Automatic. PATENT APPLIED FOR.

A Tripod should possess three important qualities, without either of which it may justly be subject to criticism: They are *strength*, *lightness*, *compactness*. The necessity for these attributes is so obvious as to require no argument.



The sliding automatic tripod made by us embraces not only all these features in the greatest degree, but is automatically secured when assembled.

The legs are made in three sections, the lowest first sliding into the middle, and then together with the middle, sliding into the top, the entire set making a compact package $1\frac{3}{4} \times 3 \times 22$ inches long. When fully extended the tripod has a height of 56 inches, with a wide range of adjustment. We make a cycle tripod, 17 inches long when folded.

The bottom section is fastened into the middle one by means of a neat brass strap and a milled thumb-screw. The second joint is a very ingenious device by means of which, when the head of the tripod is sprung on, the arms of the top section firmly clamp upon the top of the middle section, holding it as firmly and rigidly as though glued together.

Adjustment may be effected either by the milled thumb screws or by releasing an arm of the upper section from the head, into which it is again locked when the required adjustment is obtained.

Only straight grained, kiln-dried spruce is used and all exposed metal parts are buffed and lacquered. The head is of three pieces, glued counter grain to prevent warping. Universal tripod screw, fitting all cameras.

PRICE, \$3.00.



Sunart Tripods.



Compact Folding.

For a strong, durable, compact tripod, possessing more than ordinary rigidity, the Compact Folding pattern is recommended. It is strongly made, the material being selected straight grain spruce. The metal parts are of brass, the exposed portions being highly polished and lacquered. The hinges are rigid and are secured in the strongest possible manner.

This is a combination of the sliding and folding tripod; the top arms of each of the three legs folding against the middle section, into which the bottom section slides, being secured by a brass strap and a milled thumb-screw unlike the automatic sliding pattern, the adjustment (in height) is limited—between 40 and 54 inches. Adjustment to uneven ground can be readily accomplished with either pattern. The top locks securely when fastened to the legs, so that it is unnecessary to unmount the camera to carry it from place to place. The whole is less than two feet long when folded. A universal screw thread is used, fitting any camera.



PRICES :

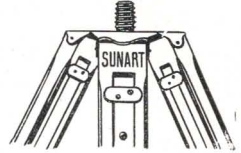
No. 1 for 4 x 5 or 5 x 7 cameras,	\$3.00
No. 2 for 5 x 7 or 6½ x 8½,	3.50
No. 3 for 6½ x 8½ or 8 x 10,	4.00

Sunart Special Tripod.

PATENTED.

The SUNART SPECIAL is second only to a single-stick tripod in point of strength and rigidity, and while not designed for the 5 x 7 and 6½ x 8½ sizes, will sustain them nicely. It is made in two sections only, the lower sliding into the upper, and when closed is 29 inches in length; its greatest height is 54 inches, and it can be adjusted to any height between these extremes.

The material is selected straight-grain spruce, thoroughly kiln-dried and finished in the natural wood. The metal parts are of brass, the exposed portions being highly burnished and lacquered. The tripod complete weighs but 21 ounces, neatly finished, with rounded edges.



PRICE, \$2.00.

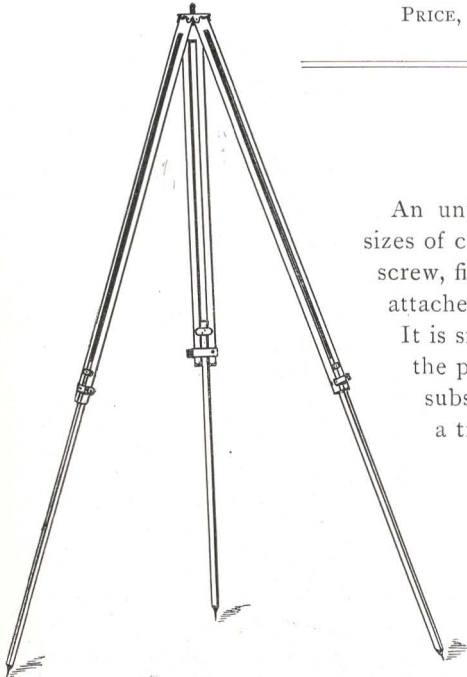
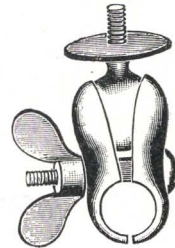
Bicycle Clamps.



An unique device, and adapted to the smaller sizes of cameras. Is equipped with universal tripod screw, fitting any make of camera. The clamp is attached to the handle-bar and will fit any wheel.

It is small and compact, taking up little room in the pocket. For time exposures it enables the substitution of the wheel for a tripod.

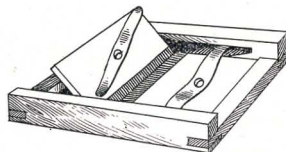
Price, brass nickle plated, \$1.00.



Sunart Printing Frames.



The Sunart printing frames are made of choice cherry, finished in oil, the corners being neatly and strongly dovetailed. They are guaranteed not to warp and are built to stand more than ordinarily rough usage, notwithstanding their lightness.

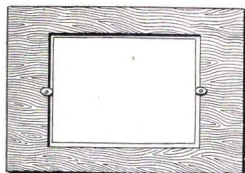


The springs are of best quality of tempered brass and are pivoted on washers with a rivet. The spring ends engage with a grooved slot in the frame, obviating the necessity of metal "ears," which interfere with piling.

PRICES:

$2\frac{1}{2} \times 2\frac{1}{2}$.	\$0.25	$3\frac{1}{4} \times 4\frac{1}{4}$.	\$0.25
$3\frac{1}{2} \times 3\frac{1}{2}$.	.25	$4\frac{1}{4} \times 4\frac{1}{4}$.	.25
4×5 .	\$0.30	5×7 .	.50

Inside Dry Plate Kits.



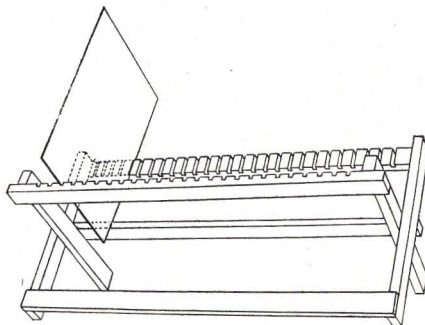
Designed for making views on a plate smaller than that for which the camera was designed. Consists of a strong wood frame in which is an aperture of the required reduced size, into which the smaller plate is inserted. Several sizes may be included in one by a nesting arrangement.

To fit holders.	Size of opening.	Each.
8×10 down to $6\frac{1}{2} \times 8\frac{1}{2}$.	$5 \times 7, 4 \times 5,$	\$0.40
$6\frac{1}{2} \times 8\frac{1}{2}$ down to $5 \times 7, 4 \times 5,$	$3\frac{1}{4} \times 4\frac{1}{4}.$	.35
5×7 down to $4 \times 5, 3\frac{1}{2} \times 4\frac{1}{4},$		.30
4×5 down to $3\frac{1}{4} \times 4\frac{1}{4}.$		.25

Sunart Negative Racks.



Made of seasoned cherry, finished in oil. Is strong, and when folded is compact. Has a capacity of twenty-four glass plate negatives. Price, 25 cents.





Sunart Printing and Developing Outfits.



To be able to develop and finish one's own pictures lends an added interest and charm to amateur photography, and gives a satisfaction to which that of the mere taking of the view is in no wise comparable. The dyed-in-the-wool enthusiast will have his own developing and printing outfit and enjoy all the pleasure of being a "maker" as well as a "taker" of pictures. The dark room is his mecca.

The developing and printing outfit furnished by us comprises everything necessary for the work, as follows :

- | | |
|-----------------------------|---------------------------------|
| One Sunart Candle Lamp, | One bottle Developing Solution, |
| One Printing Frame, | One bottle Toning Solution, |
| Three Hard Fibre Trays, | One bottle Mounting Paste, |
| One Graduate, | One Flat Paste Brush, |
| One package Printing Paper, | One package Hyposulphite Soda. |
| One package of Card Mounts, | |

PRICES :

- | | |
|---|--------|
| Outfits, complete, for $3\frac{1}{2} \times 3\frac{1}{2}$ or $3\frac{1}{4} \times 4\frac{1}{4}$, | \$1.50 |
| Outfits, complete, for 4×5 , | 2.00 |
| With No. 1 Oil Lamp, 75 cents extra. | |

Developing and Printing.



It is not infrequently the case that takers of views either have not the time to devote to the pursuit of the chemical side of photography, or have no taste, skill or patience for the developing and printing of their pictures, relying upon an expert to do this work for them.

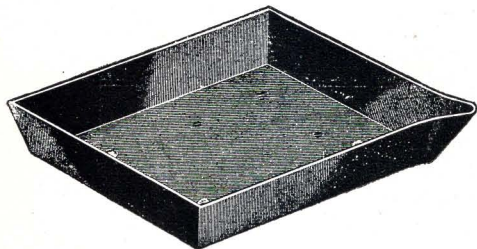
We make a specialty of developing and printing for the amateur, our facilities being unexcelled and our employees being of the most expert.

PRICE LIST FOR DEVELOPING AND PRINTING.

Size of Camera.	Developing, Printing and Mounting.	Developing only.	Printing only.
$3\frac{1}{2} \times 3\frac{1}{2}$,	12 cents.	6 cents.	8 cents.
$3\frac{1}{4} \times 4\frac{1}{4}$,	12 "	6 "	8 "
4 x 5,	15 "	8 "	10 "
5 x 7,	20 "	10 "	12 "
$6\frac{1}{2} \times 8\frac{1}{2}$,	25 "	10 "	17 "

Failures, due to fog or accident, and which cannot be determined until developed, charged at half-price.

Negatives in transit, at risk of owner.



Developing Trays.



These trays, made of indurated fibre, are both acid-proof and alkali-proof, and have a hard and smooth finish. Are easily kept clean and unbreakable by any ordinary means,

possessing an advantage in this respect over wedgewood or earthenware, besides being much less expensive.

PRICES:

Size of Plate.	Shallow.	Deep.
$3\frac{1}{4} \times 4\frac{1}{4}$,	\$0.25	\$----
4 x 5,	.30	.50
5 x 8,	.60	.70
$6\frac{1}{2} \times 8\frac{1}{2}$,	.75	.85
8 x 10,	1.10	1.15
10 x 12,	----	1.75
11 x 14,	----	2.40



Metol Hydro Developer.

The ideal developer for warm weather, but also valuable for winter work. It does not stain the fingers and is the simplest developer the amateur can use. Put up in 8 oz. bottles.

PRICE, . \$.50

Sunart Toning Solution.

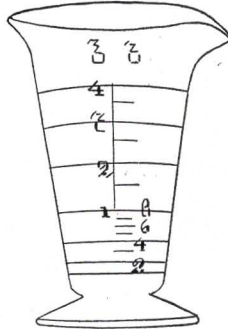
A reliable gold solution, suitable for all aristo papers. Is not only a toner but a fixer also. Put up in 8-oz. bottle, enough for 50 prints 4 x 5.

PRICE, \$.50



Graduates.

Extra thick glass, with etched graduated scale. Accuracy of measurement insured by circumscribed rings.



PRICES.

Minimum,	\$0.25
2 ounce, . . . . .	.20
4-ounce, . . . . .	.30
8 ounce, . . . . .	.40

Paste Brushes.

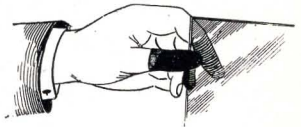
For mounting photographs, dusting plates and plate holders.



	Bristle.	Camels' Hair.
1 inch,	\$.10	.25
1½ inches, . . . . .	.20	.40
2 inches, . . . . .	.25	.50

Pure Rubber Finger Tips.

Glove fitting, of purest gum rubber. Invaluable for preventing discoloration of the fingers by chemicals while manipulating plates. Easily put on, easily removed. Will fit any finger. Price, per set of three, 15c.



Printing Out Paper.



Owing to its quick printing qualities, the ease with which it is toned, and the simplicity of its manipulation, we recommend our special paper as being best adapted to the amateur's use. Full directions accompany each package.

	2 Doz.	Per Doz.	Gross.		Per Doz.	Gross.
3½ x 3½,	"	\$.20	\$1.15	5 x 7, . . . . .	.30	\$2.65
3½ x 4¼,	"	.20	1.15	5½ x 7¾ (Panel), . . . . .	.35	3.25
4 x 5,	"	.25	1.25	6½ x 8½, . . . . .	.45	4.25
3½ x 5½ (Cabinets),	"	.25	1.35	8 x 10, . . . . .	.60	6.50

Card Mounts.



The following sizes will be found to cover the wants of the amateur. Stock and designs first-class. Postage should be remitted as indicated.

ENAMELED, EMBOSSED BORDER.

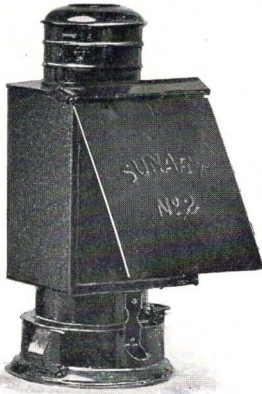
	Per Doz.	Per 100	Post'g Doz.
5 x 5 for 3½ x 3½ prints, . . . . .	.15	.85	.08
4¾ x 5¾ " 3¼ x 4¼ " . . . . .	.20	1.00	.08
5¼ x 6¾ " 4 x 5 " . . . . .	.25	1.20	.09
7 x 9 " 5 x 7 " . . . . .	.35	2.20	.10

Dry Plates.



All the leading brands of Dry Plates, Cramer's, Seed's, Hammer, Cyclone, Record, etc.

	Per Doz.		Per Doz.
3½ x 3½,	\$.40	3¼ x 4, Transparency Plates, . . . . .	.70
3¼ x 4¼, . . . . .	.45	Cover glass for Lantern slides, . . . . .	.35
4 x 5, . . . . .	.65	Masks and gummed strips for	
5 x 7,	1.10	Lantern slides, per package, . . . . .	.25
6½ x 8½,	1.65		



Sunart Dark-Room Lamp.



It is of the highest importance that the light by which exposed plates are manipulated should be absolutely actinic—that is, exerting no influence on the sensitized surfaces. Our dark-room lamp is a perfectly safe one, has an outside wick-controlling device, and is well ventilated. It is made in two sizes, No. 1 and No. 2—the former being equipped with ruby glass, and the latter with both ruby and orange glasses. Both have an adjustable shade, as shown in the engraving, and are designed to burn kerosene oil.

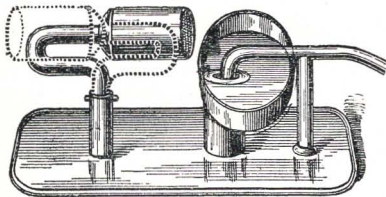
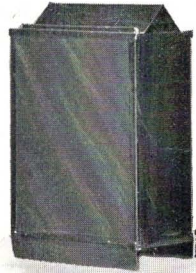
PRICES:

No. 1, \$0.80 No. 2, \$1.00

The Sunart Candle Lamp.



The Candle Lamp is more particularly designed for packing or otherwise transporting, it being impracticable to pack a kerosene lamp on account of the disagreeable odor or the danger of soiling other articles with the oil. The candle lamp is of tin and has ruby glass front. Price, 30 cents.



Flash Lamps.



A flash lamp should be simple in construction, easy to operate, and safe and sure in its use. Such an one is that which we furnish. It can be used with any of the compound flash

powders. Price, complete, \$1.25.

Flash Powder.



In the composition of Flash Powder, we have overcome two quite objectionable features in flash-light photography, viz., the disagreeably dense volume of smoke and the still more disagreeable odor; the former being reduced to a minimum, and the latter quite eliminated. In addition, its actinic properties are very marked.

PRICES:

Flash Powder, per ounce,	\$0.60
<i>Also put up in Cartridges, containing Six Full Charges of Powder and Fuse.</i>	
A, small package, . . . . .	.25
B, medium package, . . . . .	.40
C, large package, . . . . .	.75

Rubber Print Roller.



Cherry handle nickel-plated frame, hard white rubber, for rolling down prints.

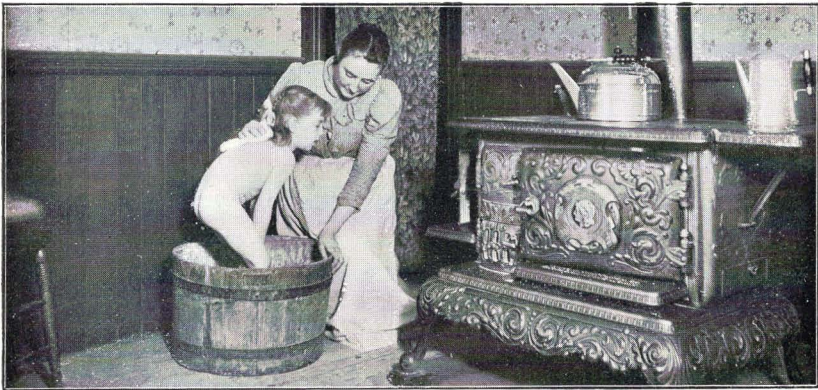
PRICE, 35 cents.

Rubber Squeegee.



Fine velvet rubber, with firm wood handle.

PRICE, 25 cents.



Flash Light Photography.



By the introduction of the flashlight the limitations hitherto placed upon photography have been removed, and where formerly we had to bide our time for suitable conditions of light, or else be satisfied with a mediocre product, we now have within our own control, not only the creation of the light itself but the time, place, and conditions under which it shall be employed, together with the possibility of producing effects unattainable even with the best sunlight. By making the one auxiliary to the other a co-effectiveness is obtained in results at once new and beautiful.

For the instruction of the novice in this branch of photography we offer the following suggestions for the use of the flash-light :

The preliminary work—preparation of the camera, arrangement of subject, etc., is the same as for sunlight photography. If a portrait or a group is to be taken, care should be exercised in the disposition of the personnel : in case of the latter, the members should be so arranged as to have, as nearly as possible, a coincident focus. If it be at night, one or more lights, depending on the size of the room should remain lighted ; this prevents the staring, glassy look to the eyes that would otherwise appear. The lights, however should be so placed as that no rays reach the lens, otherwise the picture will be hazy.

The flash lamp should not be lighted before the powder is put in it. The quantity of the powder required varies from one to two teaspoonfuls, according to the distance and the color of the walls or surroundings. The flash should be made a foot above the level of the camera and one or two feet to the rear, obliquely.

Where the permanent light is so strong as not to permit of opening the camera shutter before the flash, both flash and exposure may be made simultaneously by holding both bulbs in one hand and the flash lamp in the other, as shown in cut. In the photography of interiors,



simply, this is unnecessary, as no lights need be left burning and the shutter may

be left open till the flash, when it should be closed.

There are a few "dont's" to be observed, as follows:

Don't put powder in the lamp when the burner is turned over the flash pan.

Don't light the lamp till the pan is filled, and then be sure it is turned from it until ready for use.

Don't touch the bulb after the burner is turned over the powder, or until ready to make exposure.

Don't be careless with the powder. Fill the pan from the package with a spoon. Never pour it.

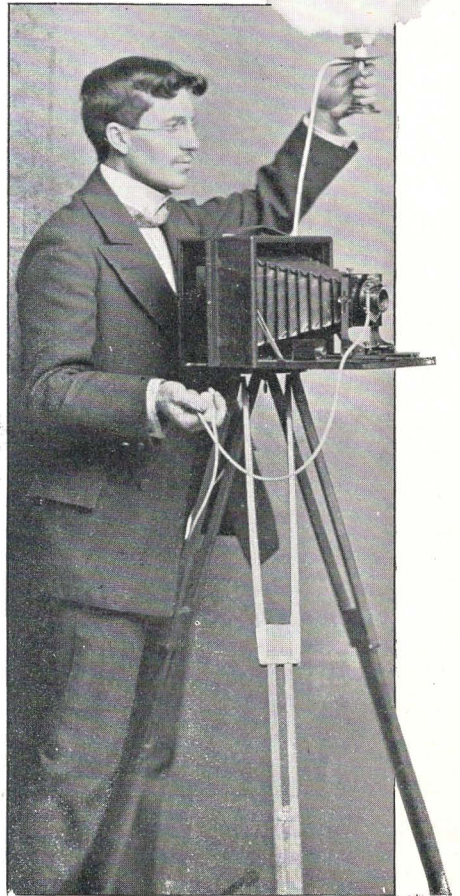
Don't stand where a mirror will reflect the flash into the camera.

Don't make your exposure till you are ready; till the subject or subjects have been posed and arranged in a manner to secure an harmonious and artistic picture.

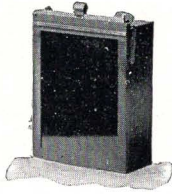
Don't make a second exposure until *all* the smoke from the first is out of the room.

Don't expect to make a first-class picture under third-class conditions. The more you can improve conditions the better will be the result.

Don't be discouraged if your first, or your second, or your third effort should prove unsuccessful. Study your failures to determine *why* they were failures. Practice makes perfect.



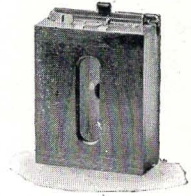




Film Holders

(EASTMAN'S.)

This holder is for the Daylight Loading Cartridge and has a capacity of 12 exposures on film.



PRICES:

4 x 5,	\$5.00
5 x 7,	6.50

KODET Roll Holders, not daylight loaders, capacity of 48 exposures on film, 4 x 5, \$10; 5 x 7, \$12.50.

Interchangeable Reels and Spools; Automatic Register.

Extra Parts of Apparatus.

INCLUDING HOLDER SLIDES, TRIPOD SCREWS, FRONT BOARDS, ETC.

Size.	Hard Rubber (etched) Holder Slides.	Front Board for Vici Camera.	Front Board for Stereo Camera.	Ground Glass for Focusing Screen.	Tripod Screws.	Tripod Clamp Screws.	Cone Bellows for Vici or Vidi.	Long Cone Bellows for Vici Camera.	Carrying Case for Camera.	Carrying Case for Cycle Vici and Vidi Holders.
3½ x 3½	\$0.25			\$0.12	\$0.30	\$0.20			\$2.25	
3½ x 4½	.30			.12					2.00	
4 x 5	.35	\$0.25		.12			\$3.50	\$4.00	2.50	\$3.00
4½ x 6½	not etched .40		\$0.50	.15			3.75	4.25	2.50	
5 x 7	“ .45	.25		.18			4.00	4.50	3.00	3.50
6½ x 8½	“ .50	.30		.20			4.50	5.00	3.00	4.50

Flanges for Vici or Vidi lenses,	\$0.75
Wood Tops for Compact Tripods, . . . . .	.50
Milled Heads, with screw, for various purposes, . . . . .	.25
Ruby Glass for Universal Lantern, . . . . .	.10
Pneumatic Release, with bulb and tubing for Vici shutter,	2.00

Selection of Lenses.



*Extracts from Bausch & Lomb Opt. Co.'s Catalogue,
by permission.*

The leading characteristics to be considered are the following:—
DEFINITION, RAPIDITY, COVERING POWER, FREEDOM FROM ASTIGMATISM, RECTILINEARITY, ANGLE OF VIEW, DEPTH OF FOCUS.

DEFINITION is that quality of a lens which enables it to produce sharp and crisp images. *In a perfect lens the definition should be faultless with the largest stop.* Speed should be the greatest possible, and at least sufficient for making instantaneous out-door and gallery photographs with unfavorable light. Speed depends upon the relation of aperture to focus, and is expressed by a fraction of the diameter of aperture, obtained by dividing the diameter of diaphragm by focal length.

For example, suppose the diameter of diaphragm to be one inch and the equivalent focal length of the lens to be 8 inches, the speed should be designated by the fraction $f - 8$.

To meet all conditions for hand camera and outdoor work, a lens should have a speed of not less than $f - 9$.

COVERING POWER.—A lens is said to have perfect “covering power” when the image is sharply defined to the margins of the plate. The sharper the definition over all parts of the plate, the better is the quality of the lens; and the better the quality of the lenses, the shorter the focus which may be used with any given size of plate, thus increasing the angle and depth of focus, as well as adding to the compactness of the lens itself.

FREEDOM FROM ASTIGMATISM.—Astigmatism is a fault inherent in all lenses and lens systems, except those especially constructed to eliminate it, and may be defined as the inability of such lens to bring vertical and horizontal lines to a focus at the same time, even though such lines be in the same plane.

Anastigmat lenses give correct delineation, hence have better definition and covering power; and, on account of better corrections, permit the use of shorter focus, giving greater angle, more equal illumination, and greater depth of focus.

RECTILINEARITY. Rectilinear lenses reproduce straight lines as straight lines. Single lenses reproduce straight lines near the margins of the plate as curves. The lack of rectilinearity shows most at the margin of the image circle, and is most pronounced in short-focus lenses. A lens may have speed, definition, covering power, and freedom from astigmatism, and still not be rectilinear.

The ANGLE for ordinary views is calculated at about 60 degrees. When ranging at between 80 and 100 degrees it is called "wide angle." In a wide-angle lens the focus is relatively short and involves the use of smaller stops to give covering power, thus reducing speed. Under ordinary conditions the angle of a lens is invariable, so that while it may be rated to give a wider angle, this can only be gained by using it on a larger plate. If a wider angle on the same size plate is desired, a shorter focus lens must be used.

A lens should have an angle considerably exceeding that actually required for the plate on which it is to be used.

DEPTH.—Upon this quality depends the capacity of the lens to give a sharp picture of objects situated at different distances from the camera. It may be obtained by the use of small stops, but at the sacrifice of speed. With any given stop it is an *invariable quality* in different lenses of the same equivalent focus, whatever may be their construction. It increases with the decrease in focus. There is no such thing as a universal focus, except with small stops, although short-focus lenses on small plates give a result nearly approximating it.

Lenses of the best quality (Anastigmat) may be used of shorter focus and give correspondingly greater depth, besides greater angle.

Assuming the same equivalent focus and rapidity, a double combination is superior to a single combination because it has: *Better definition, greater speed, greater covering power and rectilinearity.*

Assuming the same amount of speed, the Anastigmat is superior to the Rectilinear lens because it has: *Freedom from Astigmatism, greater covering power, shorter focus, greater depth, greater angle and greater compactness.*

Sunart Rectilinear Lens.



The perfectness of a camera depends upon the uniform excellence of all its component parts, none of which, however, is of so vital importance as the lens and shutter. With this fact ever before us we have spared no pains to equip our instruments with lenses of the best make and shutters "that will work." We can offer no better guaranty of the quality of our lenses than the reputation of the makers. The SUNART Rapid Rectilinear lenses are especially made to meet all the requirements of instantaneous work.

Size of Plate.	Back Focus.	Price.
$3\frac{1}{2} \times 3\frac{1}{2}$	$4\frac{8}{8}$ inches.	\$7.50
$3\frac{1}{4} \times 4\frac{1}{4}$	$4\frac{8}{8}$ "	9.00
4×5	$5\frac{8}{8}$ "	10.00
5×8	8 "	15.00
$6\frac{1}{2} \times 8\frac{1}{2}$	$10\frac{1}{4}$ "	20.00

Sunart Wide Angle Lenses.



These lenses have an angular aperture of 80° on the plate for which they are listed, but have an angle of about 90° on the next larger plate; the largest stop is $f-16$. They give good results, when used with suitable stops, on interior and architectural work.

Size of Plate.	Back Focus.	Equivalent Focus.	Price.
4×5	$3\frac{1}{4}$ inches.	$3\frac{1}{2}$ inches.	\$10.00
5×8	$4\frac{7}{8}$ "	$5\frac{1}{4}$ "	15.00
$6\frac{1}{2} \times 8\frac{1}{2}$	$6\frac{1}{8}$ "	$6\frac{1}{2}$ "	18.00

Single Achromatic Lenses.



These lenses are carefully made up of a positive crown and negative flint glass lens. They give the best possible spherical correction of this construction and make the photographic image coincident with the second glass.

Size of Plate.	Diameter of Lens.	Focus.	Unmounted Price	Price Mounted.
$3\frac{1}{2} \times 4\frac{1}{2}$	$1\frac{3}{8}$ in.	$5\frac{1}{8}$	\$1.20	\$2.75
4×5	$1\frac{1}{4}$ "	$6\frac{1}{4}$	1.50	3.00

Rapid Universal Lenses. For Instantaneous Work.



(BAUSCH & LOMB OPTICAL CO.'S)

For outdoor work they have an unusual crispness of definition, with full opening for instantaneous work and great covering capacity and depth. Ordinary instantaneous work can be made with this series of lenses, even without bright sunlight. They have an angle averaging about 65° , and are supplied with Iris Diaphragm.

Large Stop Covers,	Diameter of Image Circle.	Diameter of Lenses.	Back Focus.	Equivalent Focus.	Price.
$3\frac{1}{2} \times 4\frac{1}{2}$	8 inches.	$\frac{7}{8}$ inches.	$4\frac{3}{4}$ inches.	$5\frac{1}{4}$ inches.	\$18.00
4 x 5	$9\frac{1}{4}$ "	$1\frac{1}{8}$ "	$5\frac{3}{4}$ "	$6\frac{3}{4}$ "	22.00
5 x 8	11 "	$1\frac{3}{8}$ "	$7\frac{3}{4}$ "	$8\frac{3}{4}$ "	26.00
$6\frac{1}{2} \times 8\frac{1}{2}$	$13\frac{1}{4}$ "	$1\frac{5}{8}$ "	$10\frac{3}{8}$ "	$11\frac{3}{4}$ "	35.00

Zeiss Anastigmat 1:8. Series IIa.



These lenses also particularly adapted to copying and half-tone work, giving minute details with extreme flatness to the edges.

They are supplied with Improved Iris Diaphragm. Waterhouse stops in place of Iris at the same prices.

No.	Size of Plate covered with Stop $f. 12.5$.	Diagonal of Largest Plate Covered with small Stop 72°	Free Diameter of Largest Lens.	Equivalent Focus.	Brass Aluminum Mounting.	
					Price.	Price.
1	4 x 5 in.	$6\frac{5}{8}$ in.	$\frac{5}{8}$ in.	$4\frac{5}{8}$ in.	\$30.00	\$33.00
2	$4\frac{1}{4} \times 6\frac{1}{2}$ "	$8\frac{1}{4}$ "	$\frac{3}{4}$ "	$5\frac{3}{8}$ "	33.00	36.00
3	5 x 8 "	$10\frac{1}{8}$ "	1 "	$6\frac{1}{2}$ "	43.00	47.00
4	$6\frac{1}{2} \times 8\frac{1}{2}$ "	$12\frac{3}{8}$ "	$1\frac{3}{8}$ "	8 "	54.00	58.00
5	8 x 10 "	$14\frac{3}{4}$ "	$1\frac{7}{8}$ "	$9\frac{5}{8}$ "	64.00	68.00

The Bichromate of Potash Ray Filter.



The Ray Filter is a light filter for the purpose of absorbing certain rays which would render impossible the making of a natural picture with true color values, clouds, and perspective.

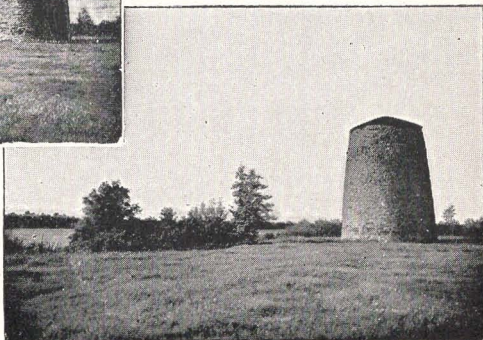
It prevents over-exposure of the sky, and gives not only the correct gradation of shading, but produces clouds and the detail in the clouds as well.

It gives the true color value of all objects in the picture.



A Rayfiltergraph.

The two views of the same scene, one made with the Ray Filter and the other an ordinary photograph, are introduced to demonstrate practically the value of the Bichromate of Potash Ray Filter in landscape work.

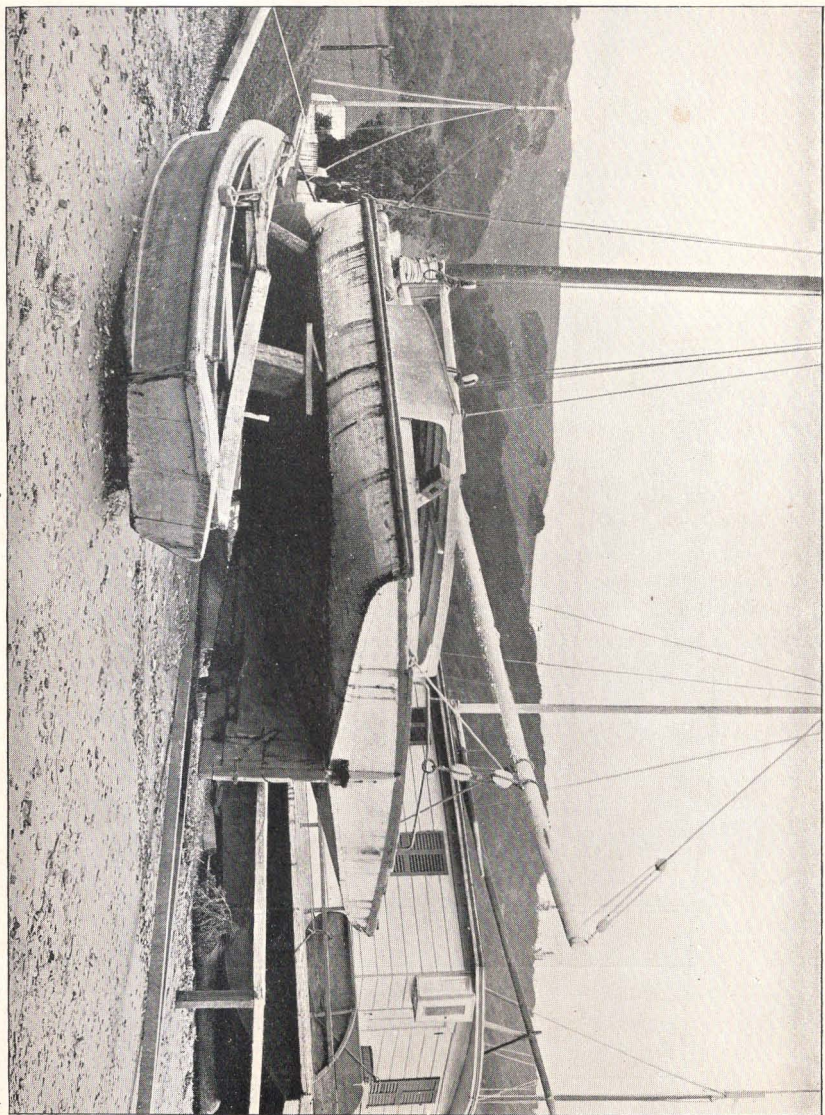


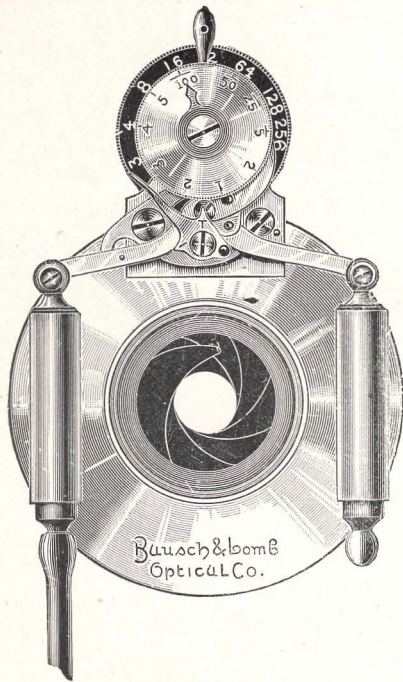
a Photograph.

It gives distinct pictures of distant objects, such as mountain peaks, which cannot be photographed at all without it.

In short, the Ray Filter is the equalizer which compensates for the supersensitiveness of the photographic plate to ultra-violet, violet, and blue light, and its lack of sensitiveness to the red.

The Ray Filter consists of two thin pieces of optical glass, the surfaces of which have been ground perfectly plane and parallel. Between these plates is cemented a glass ring of uniform thickness throughout, thus forming a cell in which Bichromate of Potash solution is contained. The glass part is mounted in a neat metal ring, which protects it.





Diaphragm Shutter.



(BAUSCH & LOMB OPTICAL COMPANY.)

It requires little argument to show that the proper place for opening and closing a shutter is in the optical axis of the lens, and in both time and instantaneous photography, it is evident that this Shutter, starting its opening with a pinhole and gradually increasing to the size of stop for which it is set, and returning in the same manner, will give the effect of a small stop, *i. e.* more depth, flatness, and equality of illumination. Comparative tests show that in practice these advantages are obtained to a marked degree.

The shutter is very compact and well balanced in its operation so that there is no jar, even at its quickest speed, while making an exposure varying in speed from 5 to $\frac{1}{100}$ seconds.

PRICES:

Size.	Price.
4 x 5	\$14.00
5 x 8	15.00
6½ x 8½	16.00

Discrimination in View Taking.



Not all amateur photographers are artists, imbued with the spirit and soul which enable them to select with displayed taste and discrimination those subjects for transference to the sensitized plate in which are embodied those attributes and features which make not the mere photograph but the *picture*. The photograph, whether in portraiture, architecture, or landscape, may be to the maker a very gratifying evidence of his skill and judgment in timing the exposure, developing the plate, and toning the print, all of which operations may be performed in the acme of accuracy and perfection ; but this only marks him as an artisan; as attaining to a high excellence in handicraft, and appeals but to one's sense of mechanical correctness. The picture, on the other hand, goes beyond all that, appealing, wherever and by whomever viewed, to loftier sentiment, to both eye and soul, and awakening a response and an admiration by the beauty and harmony of its composition. Others see in the picture the motive that impelled the maker, share with him the impressions created, and are moved by the same sentiments that appealed to his artistic sense.

The determination of what will and what will not make a good picture requires a study of conditions and surroundings, and the photographer must place his camera at such distance and in such position as to secure the best elements of composition, still preserving a good balance, depth of perspective, and a foreground.

Our idea may be illustrated by the two accompanying views, both of the same locality—one a picture and the other a mere photograph. While it may be observed that Fig. 1 has sharper detail or definition, and is otherwise a better mechanical production, it is lacking in the features enumerated in the preceding paragraph. It has no foreground and is abrupt, flat, and uninteresting, suggestive of nothing in particular. There is no pleasing perspective, no symmetry of parts.

In Fig. 2 we have warmth and sympathy. The foreground, the deep vista, the clump of shady foliage, all suggest the delightful summer evening stroll; a communing with Nature. One may almost see the nodding of the roadside herbage or hear the gentle sighing of the nearby trees; and is impressed with a grateful sense of restfulness and quietude.

These two examples are designed to show what is *good* composition and what is not, their contrasting character being so pronounced that comparisons are not difficult. It does not need the practiced eye or breadth of development in artistic taste to discern the salient points of the one or the weakness of the other.

Summarized, good composition may be said to embrace: (a) Simplicity: Avoid a multiplicity of detail, which is confusing and detracts from the central idea meant to be conveyed. (b) Tone, or proper relation of objects in shadow to the principle high-light. The relative position of the sun and condition of the sky should also be taken into consideration. With reference to the sun's position, the amateur may at the beginning secure best results especially in landscapes, with the sun at the rear, to the right or left oblique, and within an hour or more either way of its zenith. This secures a good lighting up of the subject and affords a pleasing contrast of lights and shades. Care should be taken, however, that the principal object in the picture should not be in the shade of other objects so large as to overshadow it. (c) Vista, which may comprise foreground, middle distance, and distance. The vista should be both mental and visual in effect—such as will lead both eye and mind out of and beyond the picture into the realms of imagination, but should be subordinate to the leading idea. A pretty illustration of this would be a view, from the shadow side, through an opening in a woods or row of shade trees, of a sun-flooded field of laborers, or a

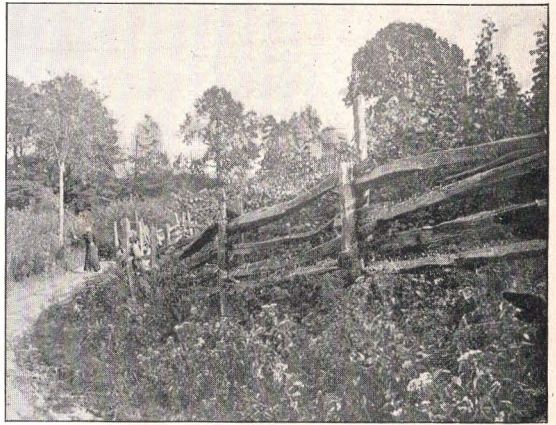


FIG. 1.

pasture containing grazing animals. (*d*) Harmony : There should be a pleasing agreement, sympathy, or balance in the component elements of the picture ; and if it includes figures remember that the art of posing consists in *not* posing. Avoid stiffness of posture ; facial expression, set and full of consciousness of being "taken" should be tabooed, and the subject should assume a natural, reposeful expression ; and by reposeful we mean an unconsciousness of "sitting" or "posing" or of in any way participating in the production of the picture. Nothing so surely betrays the work of an amateur as the stiff posing of figures, or the gaze of the subject fixed upon the objective.

The reader may ask "How can I tell what will make a good picture ?" It is said that artists are born, not made, and yet there are few so devoid of the artistic sense and conception that they cannot, by study and observation, acquire more or less of artistic perception and taste. Learn first to segregate from the vast arena of nature those specific patches that go to make up the whole. A good help in this is a piece of cardboard, the size of an envelope, with a square hole, not extending an inch in size, cut out of the centre. By holding this at a distance and looking through it at the subject that may suggest itself as a desirable basis for a picture, one may be able, without adjusting the camera, to approximately determine how the scene will look "in a frame."



FIG. 2.

Many a scene of beauty, as presented to our gaze, becomes flat and uninteresting when reduced to black and white. The successful view taker must be able not only to tell what is a good picture *as he views it*, but how it will look in the photograph. This ability is acquired by experience and study.

Terms.



PRICES quoted herein are net.

OUR GOODS are guaranteed and are listed at the lowest price that can honestly be made upon first-class high-grade work. The purchaser may, if desired, forward the price of the desired apparatus with order, the camera will be sent on trial and if not satisfactory the amount in full so paid will be returned on receipt of goods uninjured and charges paid.

PARTIES unknown to us will save delay by remitting cash with order.

C. O. D. orders must be accompanied by a sufficient advance payment to cover express charges both ways.

FREIGHT order must be accompanied by full amount of invoice.

If no directions are given how to ship we will use our discretion.

GOODS carefully packed, F. O. B. Rochester.

MAIL orders must be accompanied by a sufficient postage to cover mailing, also full amount of invoice.

WE assume no risks on goods sent by mail.

CHECK remittance add 15 cents for collection.

