

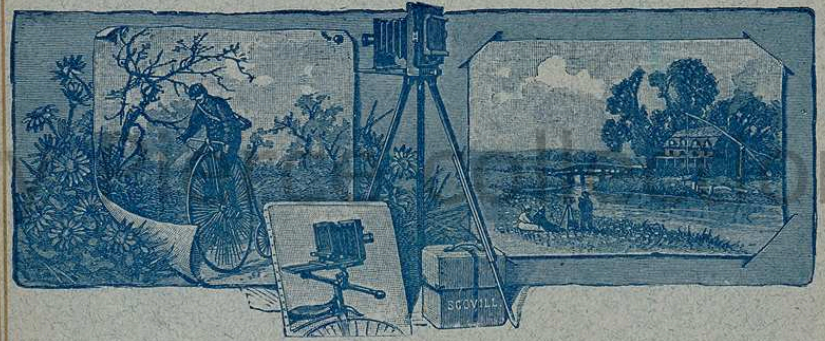


HOW TO MAKE

Photographs

AND

DESCRIPTIVE PRICE LIST.



AVERY & PERKINS,

GRAND RAPIDS,

MICH.

INDEX.

	PAGE
A	
Adt Manipulator	102
Adt Print Mounter	101
American Scholars' Outfits	29
Albion Cameras	34
Accessories for Scovill's Amateur Photo. Outfits	69-112
Albums for Photographs	71-73
Adjustable Tripods	87
Adjustable Jointed Tripods	87
Acme Glass-Bottom Developing Trays	95
Adaptable Negative Washing Boxes	97
"American Annual of Photography and Photographic Times Almanac"	115
American Films	77
B	
Bicyclists' Outfits	44
Beck Lenses	57
Boudoir Cards	70
Burnishers	103
Bromide Developer	94
Bromide Paper	78
C	
Cards	69, 70
Chemicals	27, 28
Centennial Outfits	33
Concealed Cameras	50
Carb. Soda Developer	94
Corrugated Protecting Cases	96
C. C. H. Focusing Glass	99
Carbutt's Keystone Dry-Plates	109
Cameras, View	34
Cameras, Concealed	50
Cameras, Detective	42, 43
D	
Darlot Lenses	66
Darlot Gem Lenses	66
Daisy Dry-Plate Holders	85
Daisy Tripods	88
Developing Bottles	91
Developing Solutions	110-112
Developing Trays	95, 99
Detective Cameras	42, 43
Developers	110-112
Dry Plates	109
Dry Plate Holders	85
Drawing-Room Transparency Frames	98
E	
Duplex Photographic Shutter	106
Developing Formula for Carbutt's Gelatino-Albumen Opals and Transparencies	111
E	
Enlarging, Reducing and Copying Cameras	45
Eastman's Permanent Bromide Paper	78
Enlarging Easels	79
Extra Spool Holders	80
Extension Tripods	86
Efficient Plate Lifter	90
Electric Dark-Room Lamps	93
Etched Ground Glass for Transparencies	98
F	
Focusing Glasses	100
Favorite Apparatus Outfits	23-25
Film Carriers	68
Films, American	77
Ferro-Prussiate Paper	74
Flammang's Patent Revolving Back Camera	39
Flammang Single Dry-Plate Holder	85
Flandreau's S. P. C. Hypo. Eliminator	95
Flandreau's S. P. C. Retouching Fluid	95
Flandreau's S. P. C. Orthochromatic Solutions	95
Formulas for Developing	110-112
Finders	103
G	
General Price List	108
Gundlach Lenses	55-56
Glossy Rubber Trays	99
Glass Bottom Trays	95
Ground Glass	98
H	
How to make Photographs	1
How to make Paper Negatives	9
Howard Albums	72
Howard Negative Preserver and Binder	75
Hard Rubber Plates	81
Hallenbeck Sensitized Paper and Dry-Plate Safety Box	89
Hypo Eliminator	95



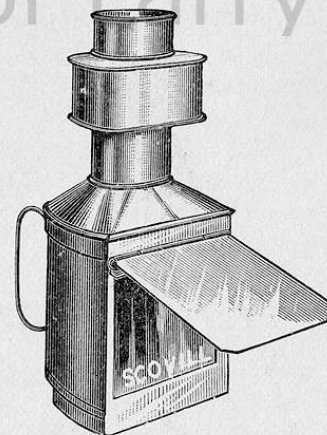
Scanned from the collection of Lar S. Pierce

	PAGE		PAGE
I			
Imported Lenses	57	Photographic Series	113
Instantaneous Shutters	105	Photo-Microscopic Camera	48
J			
Japanned Developing Trays.	103	Protecting Cases	96
K			
Kits for Enlarging Easels	80	Print Mounter	102
Kellogg Instantaneous Shutter ..	105	Parlor Paste	108
Keystone Dry Plates	109	Photographic Publications	113-114
L			
Lanterns	92	Photographic Reference Books ..	115
Light-Weight Double Holders	83	Petite Lanterns	92
Lenses, Beck	57	Prepared Developers	110
Lenses, Darlot	66	R	
Lenses, Steinheil	58-64	Retouching Fluid	95
Lenses, Morrison	53	Rubber Trays	99
Lenses, Waterbury	52	Rubber Plates	81
Lenses, Ross	65	Reversing Attachment	89
Lenses, Wale	54	Roll Holders	67
Lenses, Portrait	51-66	Ross Lenses	65
Lenses, Peerless Stereo	51	Recherche View Albums	71
M			
Manifold Cameras	41	Ready-sensitized Albumen Paper ..	74
Mercer Photo-micrographic Cam- era	49	Registering Slides	84
Morrison's Lenses	53	Rabbit Kit Frames	84
Mignon Tripod	88	Russell Negative Clasps and Racks for Drying	90
Magic Finders	100	S	
Metallic Protecting Cases	96	St. Louis Reversible Back Cam- eras	38
Manipulator	102	Steinheil Lenses	58-64
Multum in Parvo Dry-Plate Lan- tern	93	Squeegees	82
N			
Ne Plus Ultra Outfits	25, 26	Shutters, Safety	104
New York Dry-Plate Outfits	30	Shutters, Universal	104
Negative Boxes	91	Scholars' Outfits	29
Negative Paper	76	Sensitized Paper Boxes	89
Negative Washing Boxes	97	T	
O			
Outfits for Copying Drawings	81	Transparency Frames	98
Outfits for Developing Negative Paper	82	Tourist Pocket Outfits	32
Outfits for American Scholars	29	Thin Gold Beveled Edge Cards ..	70
Orthochromatic Plates	109	Translucine	81
Orthochromatic Solutions	95	Tripods, Adjustable	87
P			
Pocket Photo Outfits for Bicyclists	44	Tripods, Jointed	87
Photo-microscopic Equipment ..	48	Tripods, Daisy	86
Petite Camera	51	Tripods, Extension	86
Porte-Feuille	73	Tripods, Taylor	87
Peerless Dark-Room Lanterns	92	U	
Pyro and Potash Developer	110	Universal Shutters	104
Pelletone	94	V	
Plain Ground Glass for Transpar- encies	98	View Albums	71
Photographic Times Almanac	115	W	
		Waterbury Outfits	31
		Waterbury Detective Cameras	42
		Walmsley's Photo-micrographic Cameras	46
		Waterbury Lenses	52
		Wale Lenses	54
		Waterbury Focusing Glass	99
		Waterbury Finders	103
		Wilson's Photographic Publica- tions	116
		Washing Boxes	97

HOW TO MAKE PHOTOGRAPHS.

PICTURE making is quite simple, and the details are there-
fore briefly given. Any person of average intelligence may
feel certain that he can succeed in making good photographs if he
purchases an equipment made by reliable manufacturers.

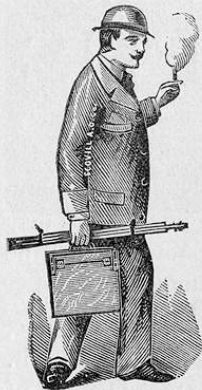
Filling the Plate Holder.—If this is done in the daytime,
a closet or room is selected and all white light excluded from it.
It is a difficult task to make this exclusion absolute. One ray of
white light will spoil a sensitive plate, and therefore the evening
is generally chosen to develop negatives, and for illumination



W. I. A. PETITE LANTERN.

the light from a ruby lantern is employed. Open a package of
gelatine plates (these plates are glass, with a coating of gelatine
on one side) and place one of them in a Dry Plate Holder, with
the sensitive (not the glossy) side facing outward. Handle the
plates as shown in the outline cut. After putting into the holders
as many plates as are needed for a day's work, pack the outfit so
that it can be conveniently carried about.

Taking the Picture.—For field service, a camera, a number of plate holders filled with sensitive plates, a lens, tripod, carrying case, and focusing cloth are needed. When these have



Amateur with Kit Packed.

been taken to a place where the view looks inviting, fasten the camera on the tripod, throw the focusing cloth over your head, gather it under your chin, draw out the back of the camera, thus extending the bellows, and continue the movement until the image on the ground glass appears most distinct, then fasten the back of the camera. This is called "focusing." At the first glance an inexperienced person sees no reflection on the ground glass, but the eye soon

becomes practiced to perceiving the inverted image there. Substitute a plate holder for the ground glass, see that the cap is

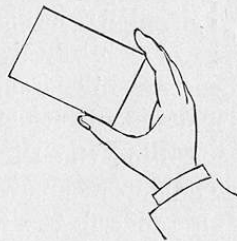
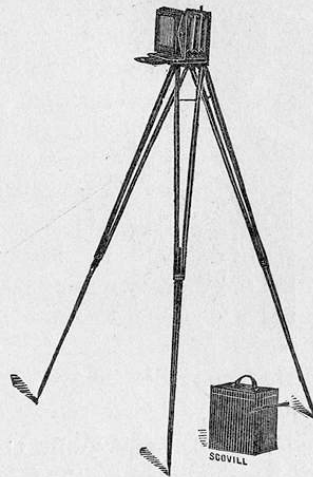


Plate in hand.



Apparatus set up.

on the lens, pull the slide out of the holder, and place it on the top of the camera, or in a convenient place. If everything is now in readiness, and the time for exposing the sensitive plate

determined, uncap the lens, recapping it at the end of the allotted time and replacing the slide in the holder.

Make an entry on the Registering Slide of a similar import to this:

After you have picture impressions on each sensitive film, rearrange your outfit in compact shape and return home.

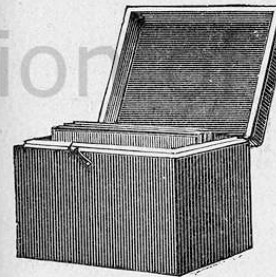
Making Negatives.—

Amateurs may content themselves with making the exposures and sending their plates in a light-tight negative box to some photographer, who, for a small price, will produce the finished pictures and mount them on card-board or in albums.



Registering Slide. (Patented.)

It is not essential where one attends to these details himself, that they should be done at once. Months may elapse, and these Dry Plates be carried hundred of miles without deterioration.



Negative Box.

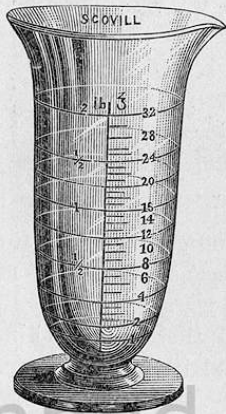
The Chemical Outfit for making negatives comprises the following articles: Two glossy rubber trays, a 4 ounce glass graduate, a minim graduate, a ruby lantern, a bottle of S.P.C. negative varnish, 1 dozen dry plates, an ounce of bromide of ammonium, a pound of hyposulphite of soda, 1 pound of alum, and a package of S.P.C. carbonate soda developer.

These chemicals are not dangerous nor do they emit offensive odors. Silver stains and the disagreeable smell of collodion belong to the old "wet" process.

The exposed plates must be removed from the holder in a dark room illuminated by a feeble red or orange light. Take them out of the holder, carefully handling them by the edges and place one of them, film side up, in a tray of pure water*. While it soaks there prepare the developer in the following manner; Dissolve the contents of the paper package marked No. 2, of the

*The Russell Negative Clasp and Drying Support for holding dry plates during development and drying is certainly to be recommended for convenience, and because it keeps the fingers out of the developing solutions. It also enables one to hold the plate up and note the progress of development without touching the sensitive surface of the plate. (See illustration on page 7).

carbonate soda developer in 64 ounces of water, and label this "Solution No. 2;" and with the minum glass add to 2 ounces of this solution 2 drams of the No. 1 solution. Now pour off the water from the tray, and flow over the plate



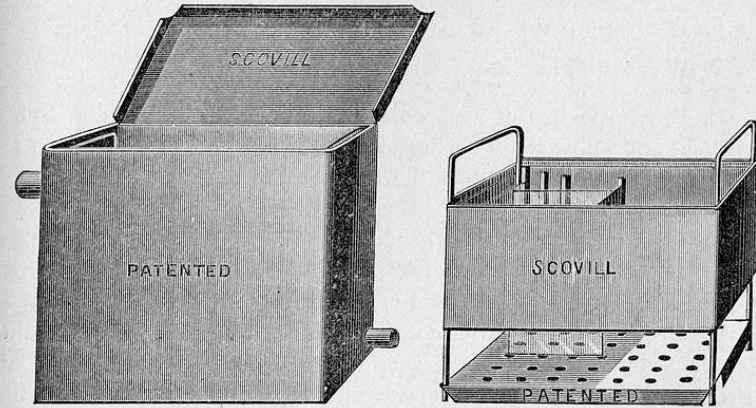
Graduated Glass.

the combined developing solution. If air-bubbles form on the plate they must be removed by a touch of the finger or by a soft camel's hair brush. If the plate be correctly exposed traces of the image will appear on the sensitive film in a short time, but in case they do not, pour the developing solution back into the graduate and add a little more of No. 2 solution (from a quarter to half an ounce) and reflow the plate with the strengthened developer. In a short time the details of the image will appear, but wait patiently until all the details are out and clearly seen in the deep shadows, and until the milky-white appearance of the plate is

changed to a dark gray color. The negative is then fully developed and must be washed in two changes of water, when it is ready for the "fixing" bath. Should the image on the plate flash out suddenly on flowing it with the developing solution, and continue to grow very rapidly, the plate has been over-exposed and must be quickly removed from the developing tray and placed in pure water while a restraining solution of bromide is made as follows: Dissolve 1 ounce of bromide of ammonium in 8 ounces of water, and label "Bromide solution." Now add a few drops of the bromide solution to the developing tray and replace in it the partly developed plate. The development will now proceed more slowly, but if too much bromide has been added, so that the development is entirely stopped, it can be started again by adding carefully a little more of the No. 2 solution.

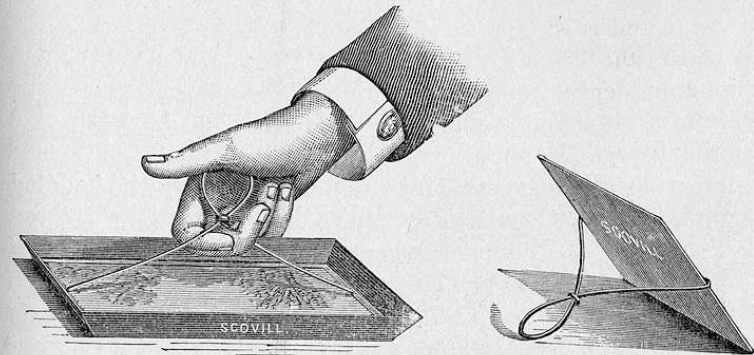
In the unused tray mix a solution of 4 ounces of hyposulphite of soda and 20 ounces of water. Label this tray "Hypo." and do not use it for any other purpose. After washing the negative place it in the hypo. bath and allow it to remain there until every vestige of the milky-white appearance has vanished. The negative can now be safely examined by white light. It must be thoroughly washed, as the hyposulphite of soda, if allowed to

remain in the film, will crystalize and destroy the negative. A negative washing box will be found to be of great assistance. Meanwhile rinse out the first tray and partially fill it with a solu-



Negative Washing Box.

tion of 20 ounces of water and all the alum the water will hold in solution. Allow the plate to remain in the alum bath about five



The Russell Negative Clasp.

minutes and then thoroughly wash it again and set it on edge to dry in a negative rack or the drying support.

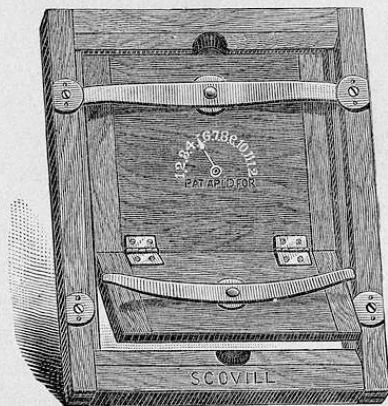
All the preceding instructions can be briefly summarized as follows:

1. Put some sensitive plates into dry plate holders.
2. Make the exposures.
3. After taking a plate out of the holder, place it in a tray filled with water.

4. Drain off the water and pour over the plate the mixed developing solution.
5. Wash the plate and place it in the hypo. solution.
6. Wash the plate and give it an alum bath.
7. Wash the plate and set it in the rack to dry.
8. When perfectly dry, coat the film over with negative varnish, and allow that coating to dry. After this the surface of the plate may be touched by the fingers.

Making Prints from Negatives.—At this point the work ceases to be one of faith, as the results are now to appear. An outfit of printing requisites comprises a printing frame, a porcelain pan, a vulcanite tray, some ready sensitized paper, a bottle of French azotate, a bottle of chloride of gold, a glass graduate, some hyposulphite of soda, a glass form, a Robinson trimmer, some sheets of fine card-board, a jar of parlor paste, and a bristle brush.

Blue Prints.—If you wish to make a blue picture on a white ground, commonly called a “blue print,” procure a package of ferro-prussiate paper, place the negative, film side up, in a printing frame. Upon the negative lay a piece of ferro-prussiate



Scovill Printing Frame.

paper (this should be handled in a dim light) with the colored side down. Close the back of the printing frame and fasten it by setting the springs. Carry the printing frame to some place where the sunlight will fall upon it, and from time to time examine the print. As soon as the picture is clearly seen, take out the print and throw it into a pan containing clean water. After about twenty minutes remove the print and dry it in the sunlight. The result is a permanent blue and white picture.

which will at least answer for a proof and show the merit of your negative.

Sensitized Paper Prints.—In the morning prepare a toning bath sufficient for the prints to be toned that day. Put $7\frac{1}{2}$ grains of chloride of gold into $7\frac{1}{2}$ ounces of water. Label the bottle, “Chloride of Gold Solution.” Take 1 ounce of French azotate, $1\frac{1}{2}$ ounces of the chloride of gold solution, and add 6 ounces of water, and you have a toning bath which keeps well. Where the prints do not give the required tone, the bath must be strengthened by adding to it some new solution. Place the glossy side of a sheet of sensitized paper upon the film side of the negative in the printing frame. *Do this in a very dim light.*

The printing has gone far enough when the print looks a little darker than you wish the finished picture to appear. Make as many prints from the negative as you desire. Wash the prints in several changes of water. Take seven ounces of the toning solution and change the prints to the pan containing it, where the prints should be turned over and over to make the toning even. The toning process should go on until the dark part of the pictures have a very faint purplish tint and the white portion is clear. Wash the picture, but preserve the toning solution. The pictures should now be left for twenty minutes in a solution composed of 4



Robinson Trimmer.

ounces of hyposulphite of soda, 1 ounce of common salt, $\frac{1}{2}$ ounce of washing soda, and 32 ounces of water. This solution should also be prepared a day or two in advance. Give the pictures a final and effectual washing. After they are dried, lay them out one by one and, using the Robinson trimmer, cut them to the desired size. Now spread over the back of each

in turn some parlor paste, and lay them down with the center on the sheets of card-board. This operation is called "Mounting Pictures." Press with a paper cutter upon the pictures and toward their edges until you are satisfied that they will lay flat.

Further more explicit and complete instructions in the making of photographs, how they can be preserved in neat shape, instructions for making stereoscopic and instantaneous pictures, transparencies, magic lantern slides, and photographs of microscopic objects, are to be found in "How to Make Pictures," by Henry Clay Price.



HOW TO MAKE PAPER NEGATIVES.

It is needless to dwell upon the many advantages paper negatives possess over glass, for they will be apparent to any one accustomed to the old process. In consequence of the extreme lightness of the paper, the pleasure of taking pictures is increased ten fold, and the inducements offered to the amateur to take larger photographs enhanced.

The danger of breakage is avoided, thereby making rough transportation perfectly safe.

The compact way in which the negatives can be packed should not be overlooked; they can be kept in books, thereby affording as easy a means of reference as if it were in a photographic album—a point of much value in any large concern. They can be used in photographic ink printing processes without the need of transfer, so common with glass plates.

The advantage of the lightness of the paper over the weight of glass is especially noticeable in the larger sizes, as, for instance, an entire outfit taking twenty-four 8x10 pictures, which includes a camera, lens, tripod, carrying case and roll holder, weighs less than twenty pounds; whereas twenty-four 8x10 glass plates weigh of themselves over sixteen pounds, while the wood plate holders weigh fully as much again; hence, as the roll holder loaded for this size weighs only about three and a half pounds, there is a saving in weight on the outfit of about twenty-eight and a half pounds. A spool of paper for taking twenty-four 8x10 negatives weighs only twelve ounces; hence each additional twenty-four picture paper roll adds to outfit less than one pound, against over sixteen pounds of glass.

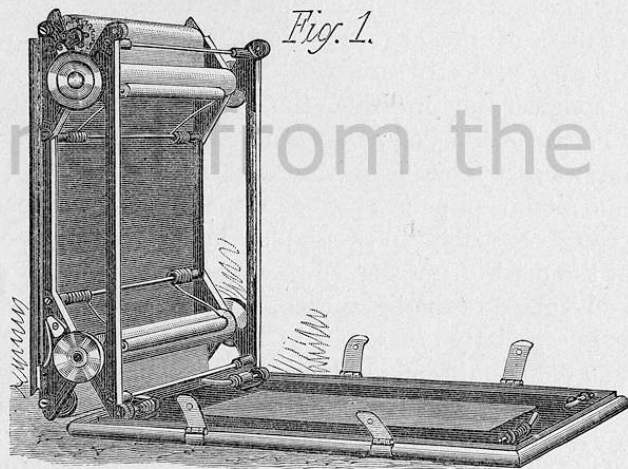
In other words, the amateur can carry an 8x10 outfit with less effort than was formerly expended on a 5x8 glass equipped apparatus, and for each additional twenty-four negatives required the difference is greatly increased.

The retouching of paper negatives is more easily done than on glass, for the back of the negative is worked upon by a pencil; any mistake can be readily erased. With crayon stubs very pretty cloud effects can be worked into the sky of landscape negatives.

The full size of the paper negative is available for printing, and therefore a somewhat smaller film than the glass negative yields the same equivalent in size of the finished photograph.

It is obvious that the most compact and convenient way of using this paper is by means of the roll holder and the spools, for on account of their lightness they can be readily sent in the mails, at a small cost, to various parts of the country.

The Apparatus.—For the purpose of making a large quantity of the sensitive paper available, in a small space,

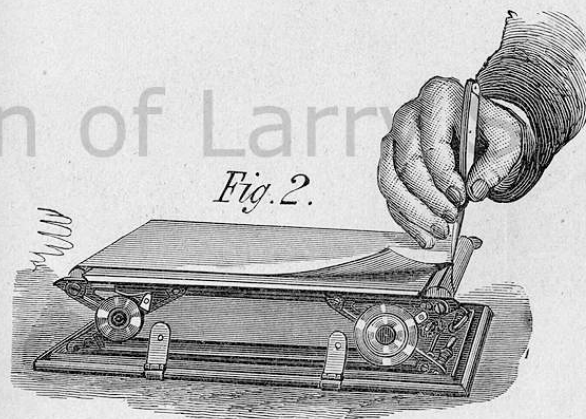


when used in the camera, a holder, termed a "roll holder," has been devised. Fig. 1 illustrates the inside mechanism of the holder when it is thrown up or back, and when ready for use the whole is enclosed in a handsomely finished mahogany outside case, provided on its front side with a suitable slide, as plainly seen in Fig. 6.

Referring to Fig. 1, it will be noticed that the essential working parts of the holder consist of a supply spool holding the sensitive paper, a winding-up reel, a wood exposing platform of peculiar construction, two guide rolls, and two spring pressure tension rolls, which bear upon the supply spool and

winding reel; all being confined and held between two light metal side frames braced and connected together at their ends by suitable tie rods. The back of the mahogany case is detachable, and is held in place by flat spring metal clamps, fitting over corresponding pins on the side of the case. (See Figs. 1 and 6.) The edge of the case fits in an angular groove cut in the inside surface of the back near its edge, for the purpose of making a light-tight joint, when the case is pressed home.

The light metal frame supporting the working parts is held to the removable back by four spring bolts, one pair at each end, which may be plainly seen on the right end in Fig. 2. By compressing the two bolts simultaneously inward with the thumb and index finger, one end of the frame is released and easily



elevated or thrown back, the opposite set of bolts forming a pivot or hinge. In this position the back forms a base to support the frame when placed upright. When the frame is dropped down, the spring bolts are again drawn inward, and in shooting back lock the frame to the back. Thus either end of the frame may be readily elevated, or it may be entirely removed from the back, permitting the operator to obtain easy access to the rollers in the dark room, when attaching and detaching the sensitive paper.

Figs. 2 and 3 show the metal frame down on the back in its normal position. At the extreme end of the metal frame, adjacent to the exposing platform, and having their peripheries

parallel with the surface of the platform, are two guide rolls, of such a diameter that their circumference measures one-quarter of the length of the exposing platform or of the length of the picture, whatever size the holder is intended to make; one guide roll, termed also a measuring roll, will be seen at the extreme upper end in Figs. 1 and 4; and at the right hand end also in Fig. 2.

Projecting at each end, slightly above the surface of this guide roll, are two metal points, which puncture the margin of the paper at each revolution, as it passes from the supply spool over the guide rolls and the exposing platform to the reel at the opposite end; a pin projecting

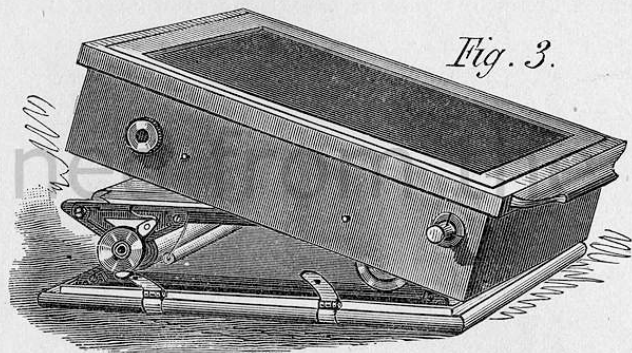


Fig. 3.

out from one end of the guide roll pushes down a small flat spring secured to the under side of the exposing platform, which, flying up against the under side of the latter, as it is suddenly released, produces a loud click or alarm. In addition to the sound device, a spur wheel is arranged on the shaft of the guide roll at one end, which can be seen in Figs. 1 and 2, so geared that four revolutions of the guide roll will cause a second spur wheel to make one revolution of an indicator seen upon the outside of the case, at its right hand end, Fig. 3, and upper end Fig. 6.

The necessity of providing some accurate yet simple means of measuring the paper as it passes from the supply spool to the reel was apparent to the inventors, and the simple devices, just described, which have been adopted, deserve a word of praise. If the measuring device had been attached to either

the supply spool or reel, to be guided by their respective revolutions, it would have been inaccurate; for as the paper is taken off the supply spool it revolves more rapidly, while with the reel the diameter is rapidly increased in proportion as the paper is wound upon it, and the amount thus taken up must constantly vary. Hence it is the constant diameter of the guide rolls, and the revolving of the same by the passing paper, which furnish an accurate means of measurement.

Passing now from the guide rolls, we come to the supply spool and reel, and the mechanism for rotating and holding them. Both are supported by centres arranged in the metal frame, just under and behind the extreme edge of the expos-

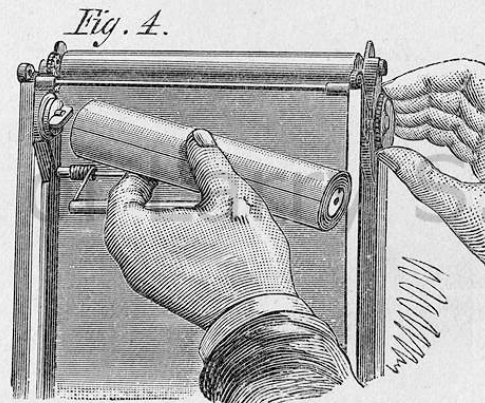


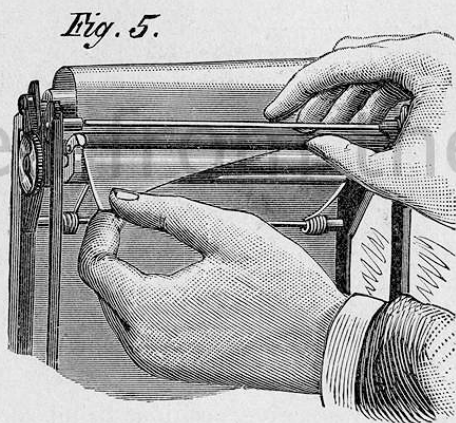
Fig. 4.

ing platform, their respective positions being seen in Figs. 1, 4, and 5.

In Fig. 1, the supply spool will be noticed at the upper end. Fig. 4 shows a more detailed view of its particular construction, and the manner of its insertion into the roll holder. One end of the spool has a rectangular recess or saw cut, which corresponds to the rectangular-shaped chuck projection on the metal center. The other end has a hole in which the adjustable screw center, seen upon the right of Fig. 4, is inserted. The chuck center has a large milled head on its outer end, outside of the frame, as shown on the upper left hand end in Fig. 1, and a gravity pawl presses upon the periphery of the head, creating a small friction to its movement, acting also as a tension on the paper.

The sensitive paper is sent out already rolled upon the spools in packages, as shown in Fig. 11, and it is only necessary to insert the prepared spool in the holder to obtain a fresh supply; usually enough paper is wound upon a spool for twenty-four exposures; in small sizes forty-eight exposures are furnished.

Fig. 5 illustrates the mode of securing the free end of the paper to the reel. One portion of the circumference of the reel is flattened in the direction of its length, over which lies a metal clamp pivoted upon the ends of the reel. The clamp is easily raised or lowered by a lateral movement, from the flattened surface of the reel. In Fig. 5 the clamp has been raised



by the right hand, while the free end of the paper is drawn through with the left, and afterward straightened with both, when the clamp is pressed down, thus securely fastening the paper to the reel; rotating the latter at once winds up the paper. The reel is held between a chuck center and a screw center similar to those holding the supply spool, with the exception that the chuck center has a recess instead of a projection, which peculiar construction prevents any mistake of the spool and reel being attached in the wrong place in the dark room. A small spring pawl rests on the periphery of the milled head of the reel chuck, giving quite sufficient friction thereto to prevent the reel from unwinding. In the center of the

milled head of the reel chuck center is a threaded hole for receiving the screw threaded operating key. The key when screwed into the milled head operates very similarly to the permanent keys attached to small clocks. Rotating it to the right revolves the reel; rotating it to the left unscrews it from the reel. Around the threaded hole is an annular groove, in which the inner edge of the loose tubular key guide drops when the case covers the frame. The threaded hole and annular groove may be seen in the lower milled head, Fig. 1, and the loose tubular guide at the left-hand end of the case in Fig. 3, and lower end, Fig. 6; the latter also shows the key inserted. The object of this construction is to make a light-tight joint around the key aperture. Fig. 12 shows a cross section of the case at the slide side; two brass flat springs running lengthwise along the inner edge of the slide aperture bear upon the margin of the paper as it travels over the exposing platform, preventing it from buckling or curling up.

How to Use it.—Having now described the various parts of the apparatus, I will first explain the operation of inserting and attaching a fresh spool of sensitive paper. By throwing back the spring clamps and drawing out the indicator knob and loose key tube, the outside case with its slide is easily raised from the back, exposing to view the frame and rolls, as shown in Fig. 2. Fig. 3 shows the case partly raised.

Firmly holding the exposing platform with the left hand, and with the thumb and middle finger of the right compressing inward the two spring bolts on the right-hand end of the back, the frame is elevated, as shown in Fig. 1.

Now, lifting the spring pressure roll or brake, and holding it between the index and second finger of the left hand, while the supply spool is also held between the index finger and thumb, as shown in Fig. 4, the depression or saw cut in the end of the spool is pushed upon the rectangular projection on the center chuck. With the right hand the threaded thumb screw is passed into the hole at the opposite end of the spool, holding the latter firmly in place. The inclosing band, which binds the paper on the spool, is next torn off, the pressure roll released, so that it presses firmly against the spool, and the free end of the paper drawn under and over the guide measuring

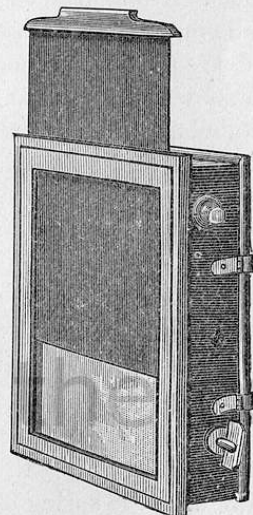
roll across the exposing platform, over the second guide roll, down to the reel, as shown in Fig. 5—the frame in the mean time having been reversed on the back, that is, the reel end elevated instead of the spool end.

The paper is fastened to the reel by the flat pivoted clamp as previously explained; and after seeing that it occupies a perfectly central position across the guide rolls, the slack is taken up by means of the tension screw milled head on one end of the reel. The spring pawl is then turned down or replaced, also the gravity pawl on the spool holder milled head, and the frame secured in position on the back by the four spring bolts. The whole is then covered by and fastened to the outside case. The paper should now lie perfectly smooth and flat on the face of the exposing platform.

The slide on the front of the case is next withdrawn (see it partly withdrawn in Fig. 6), and with a lead pencil a line is drawn across the paper at each end of the slide opening, for the purpose of determining where the first exposure commences. On replacing the slide, the holder is removed from the dark room and attached to the camera, to which it has been previously fitted, and so arranged that the plane of the exposing platform shall occupy exactly that of the ground glass.

I will now suppose that the object has been properly focused, the ground glass removed, and the holder attached to the back of the camera, the same as an ordinary plate holder, by means of suitable pins and catches. The slide is withdrawn, and the exposure made by uncapping and capping the lens in the usual manner, and the slide replaced. The operating key is screwed home and the indicator tube pressed into place, on to the square head of the shaft of the indicator spur wheel and fastened by the bayonet catch.

Fig. 6.



It is now desired to bring a fresh surface upon the exposing table for a new exposure; with the right hand the operator rotates the key similar to the winding of a clock (see Fig. 7), which rotates the reel and carries the paper over the face of the exposing platform; soon a click is heard, and the indicator has made one-quarter of a revolution; then a second, third, and fourth click, when it will be found that the indicator has

Fig. 7.



made one complete revolution, informing the operator both by sound and sight that a fresh sensitive surface has been brought into place. With each click the metal points on the surface of the measuring guide roll puncture upward the paper at each margin, making four raised dots on each edge for each exposure.

Twelve exposures out of the twenty-four having been made, it is desired that they be separated and removed from the supply spool for the purpose of development; taking the holder to the dark room and removing the outer case, we sever the exposed portion of paper on the reel and on the exposing platform by simply drawing the point of a knife across the length of the measuring guide roll (see Fig. 2). By counting four dots from the end, we come to the end of one exposure. The paper is next drawn by the hand to the right until the fourth pair of dots are brought over the measuring roll, when the sheet is separated as before. Instead of cutting off the exposed sheets in this manner, they may be severed by shears. The reel containing the exposed paper may be bodily removed from the frame in the same manner as the supply spool, and another inserted, and the unexposed paper attached to it, as in Fig. 5, when new exposures may be wound upon it as before.

The spring pressure rollers bearing upon the back of the paper when on the spool or reel prevents the uncoiling of the paper on the same, and thus obviates the danger of abrasion by the loosening and tightening of the paper on itself.

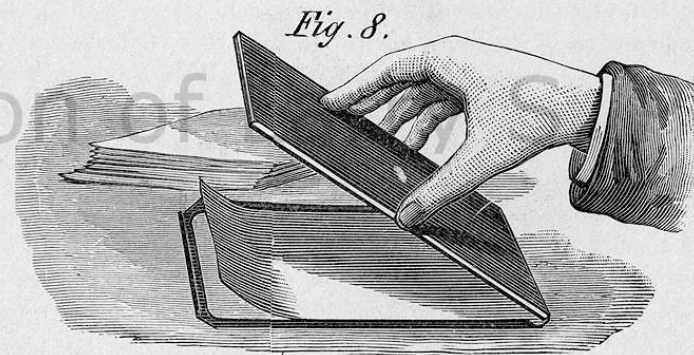
In holders of small size, three clicks and punctures are made instead of four for one exposure; in large sizes as many as five or six. All the parts of the holder are made interchangeable, on the plan of the sewing machine and all American Optical Co. apparatus, thereby making the repair of any damages a very simple matter.

Film Carriers for Use with Scovill Dry Plate Holders.—In cases where it is inconvenient to use a "roll holder," a special carrier has been devised (see Fig. 8) for supporting single sheets of the paper in the ordinary double holder used for glass plates. The carrier consists simply of a thin wood support or plate built up of narrow strips of wood to prevent warping, constructed like the exposing platform in the "roll holder," and has a thin metal mat or frame, which is bent up around the edges, and clasps the plate when it is pressed into it. In Fig. 8 the wood carrier is held in the hand, while the metal mat lies flat; above it may be seen the sheet of paper, one end being partly curled up.

In order to secure the paper to the carrier, the frame is laid

down upon a clean sheet of paper and the sheet of negative paper laid, face down, into it; the wood plate is then pressed down on top of it, and the ends of the frame, springing over the rounded edges of the wood carrier, hold the paper firmly and smoothly against the carrier. As the thickness of the carrier and mat combined does not exceed that of the average glass plate, it can be put into the ordinary plate holder for exposure in the camera.

Simplicity of the Development.—After the paper has been exposed in the camera, the sheets are cut off and developed by a red light in a dark room, similar to dry plates; but they possess a marked advantage over the plates, from the fact that several sheets can be developed at one time, one above



the other, in one developing bath, somewhat in the same way as silver prints are toned. The sheets are first wetted by immersion in a tray of water, and then placed face down one after the other in the developing solution, and moved about in the same until development is finished. They are then washed in water, and fixed in a solution of hyposulphite soda, again washed and dried.

Fig. 9 shows the tray upon the table in which is the developer; the bottle and graduates may also be seen. The developed negative is held up by its upper corners, with the fingers for examination of its density before the red light, which is supposed to be on a shelf in front of the operator. The S. P. C. pyro and soda developer, already mixed, is

furnished, thereby insuring the novice perfect success at the outset.

Although silver prints can readily be struck off in the ordinary way in the printing frame from the paper negative, after it is dry, which will show no grain in the shadows, still it is advised, when a large number of prints are to be made, that the negative be made transparent by means of *TRANSLUCINE*. To apply the *Translucine*, lay the negative face down upon a pad composed of six thicknesses of folded manilla paper. Pour a little of the *Translucine* on the back of the negative, and spread with the finger evenly over the surface.

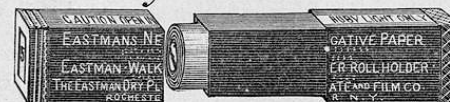


In four or five hours the *Translucine* will have soaked into the paper, rendering it nearly transparent, and free from grain. Heat is not necessary, but may be used to accelerate its action. When the paper is of an even, dark color, wipe off the excess of *Translucine* with a clean rag, and the negative is ready to print. If the negative is in constant use, an occasional application of the *Translucine* will keep it in good condition. In this way the paper is very easily made transparent, and the negative is as useful as if it were on glass.

Preparation of the Sensitive Film.—The process consists in giving the paper a preliminary coating of gelatine sufficiently thick to give a plane surface to the paper, filling up all the depressions, and then in calendering the

paper thus coated, so that it presents an absolutely polished surface to the sensitive emulsion, which is, as with the ordinary plates, based on gelatine. The paper is thus prepared in the roll thirty inches in width, and is then, still in the roll, coated with gelatine bromide emulsion in a double application, the second beginning with the end at which the first finished, securing a general equality of the film which no film

Fig. 11.



on glass attains as a rule, and at the same time obviating in the one application any defects which the other may have had.

I am informed that the machinery employed is large enough to prepare and coat a strip of paper thirty inches wide by 3,800 feet long, and to produce a superior negative paper, possessing the characteristics so desirable in any sensitive film,

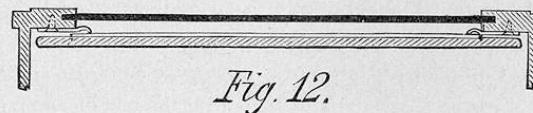


Fig. 12.

such as extreme uniformity of coating, great sensitiveness, freedom from halation, and other accidental defects often found in glass plates, at a cost much below that of ordinary dry plates, and of equal excellence. The paper possesses a wonderfully fine close texture, and its surface is coated with an extremely sensitive gelatine argentic emulsion.



Old Style Equipment.

THE
SCOVILL
Portable
DRY PLATE OUTFITS
FOR AMATEURS



New Style Equipment.

THE introduction of Dry Plates and the impetus given by them to the cause of Amateur Photography, created a demand for light and compact apparatus that could be easily carried about. That demand the Scovill Manufacturing Company of New York *anticipated and first met* by the introduction of apparatus especially designed for the use of amateurs.

When they announced an Outfit comprising a Camera, Holder, Tripod, Carrying Case, and a good Lens, for \$10, a new era in Amateur Photography began, and it was destined to be henceforth a popular and cultivating recreation.

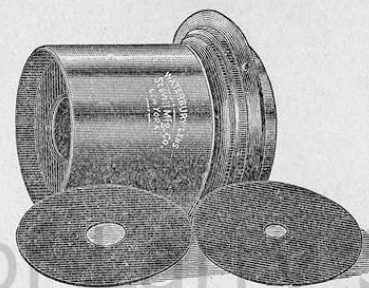
The Cameras they make for amateurs are not mere toys—they have been used and approved by eminent photographers. Certainly no apparatus can compare with that made by their American Optical Co.'s Factory, in durability, accuracy and elegance of finish. It is in use in all parts of the globe, and has by merit won this wide-spread reputation. Be not deceived by what is copied after it.

Every article enumerated in this Catalogue has the guarantee of the Scovill Manufacturing Co., established in 1802, and well known throughout the world for fair and honorable dealing as well as for the marked superiority of their photographic apparatus and specialties.

New Catalogues, circulars, etc., will be mailed to any one whose address is sent with the request for such copies.

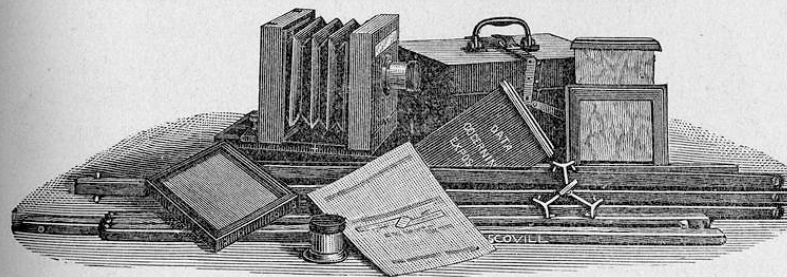
SCOVILL'S
FAVORITE
APPARATUS OUTFITS.

All Articles of which are Warranted Accurate in Every Respect.
These Outfits are lighter, more compact, far handsomer and more accurate than any which are offered at the same price. Many professional photographers have bought them and use them constantly.



In each outfit the Waterbury Lens is worth more than the price of the whole outfit.

FAVORITE OUTFIT A, price \$10.00, comprises



A FAVORITE VIEW CAMERA to produce 4x5 inch pictures, with *vertical shifting front, single swing movement*, rubber bellows and folding platform, with *patent latch* for making bed rigid instantaneously,

1 Scovill Double Dry Plate Holder (Reversible), with *patent Registering Slides*.

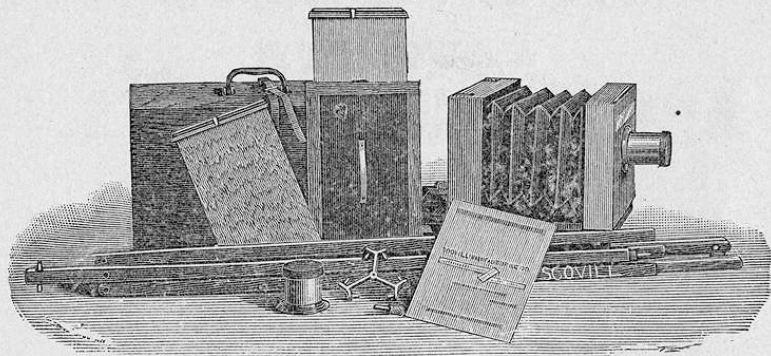
1 Taylor Improved Folding Tripod.

1 No. A "Waterbury" Achromatic Lens with a set of Stops.

1 Carrying Case.

5x7 Favorite Outfit. - - - - Price, \$12.00

FAVORITE OUTFIT B, price \$12.00, comprises



A FAVORITE VIEW CAMERA, to produce pictures 5x8 inches, with *vertical shifting front, single swing movement, rubber bellows and folding platform, with patent latch for making bed rigid instantaneously*; also

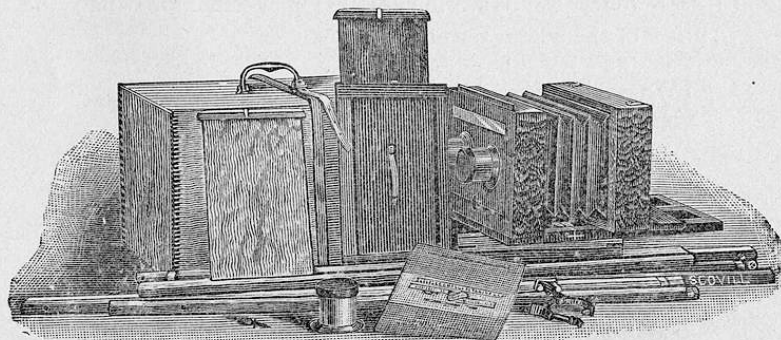
1 Scovill Double Dry Plate Holder (Reversible), with *patent Registering Slides, and with Kits.*

1 Taylor Improved Folding Tripod.

1 No. B "Waterbury" Achromatic Lens *with a set of Stops.*

1 Carrying Case.

FAVORITE OUTFIT C, price \$18.50, comprises



A FAVORITE VIEW CAMERA, to produce 5x8 inch pictures, with *vertical shifting front, single swing movement, rubber bellows and folding platform, with patent latch for making bed rigid instantaneously.*

This Camera is constructed so as to make either a *Picture* on the full size of the plate (5 x 8 inches), or by substituting the extra front (supplied with the outfit) and using the pair of lenses of shorter focus, it is admirably adapted for taking *stereoscopic negatives.* Included in this outfit are also

1 Scovill Double Dry Plate Holder (Reversible), with *patent Registering Slides, and with Kits.*

1 B "Waterbury" Achromatic Lens, *with Stops.*

1 Pair "Waterbury" Achromatic Matched Stereoscopic Lenses, *each with Stops.*

1 Taylor Improved Folding Tripod.

1 Carrying Case.

FAVORITE OUTFIT D, price \$14.00, comprises

A FAVORITE VIEW CAMERA to produce pictures 6½x8½ inches, with *vertical shifting front, single swing movement, rubber bellows and folding platform, with patent latch for making bed rigid instantaneously*; also

1 Scovill Double Dry Plate Holder (Reversible), with *patent Registering Slides and with Kits.*

1 Taylor Improved Folding Tripod.

1 No. B "Waterbury" Achromatic Lens *with a set of Stops.*

1 Carrying Case.

FAVORITE OUTFIT E, price \$26.00, comprises

A FAVORITE VIEW CAMERA to produce pictures 8x10 inches, with *vertical shifting front, single swing movement, rubber bellows and folding platform, with patent latch for making bed rigid instantaneously*; also

1 Scovill Double Dry Plate Holder (Reversible), with *patent Registering Slides, and with Kits.*

1 Taylor Improved Folding Tripod.

1 No. C "Waterbury" Achromatic Lens *with a set of Stops.*

1 Carrying Case.

SCOVILL'S NE PLUS ULTRA OUTFITS.

4 x 5 Ne Plus Ultra Outfit, price \$9.00, comprises

A 4 x 5 Ne Plus Ultra Camera, which has single swing, rubber bellows, removable front and folding platform.

1 Patent Double Dry Plate Holder.

1 Taylor Folding Tripod.

1 Waterbury Achromatic Lens with Stops.

1 Wooden Carrying Case.

5 x 8 Ne Plus Ultra Outfit, price \$10.00, comprises

A 5 x 8 Ne Plus Ultra Camera, which has single swing, rubber bellows, removable front and folding platform.

1 Patent Double Dry Plate Holder.

1 Taylor Folding Tripod.

1 Waterbury Achromatic Lens with Stops.

1 Wooden Carrying Case.

EQUIPMENT A-A.

Consists of FAVORITE APPARATUS OUTFIT A, with

1 Scovill Focusing Cloth.

1 Dozen 4 x 5 Dry Plates.

1 W. I. A. Petite Lantern.

Complete for field service, Price, \$12.00.

EQUIPMENT B-B.

Consists of FAVORITE APPARATUS OUTFIT B, with the additional articles enumerated in A-A. (Dry Plates 5 x 8 size.)

Complete for field service, Price, \$14.50.

EQUIPMENT C-C.

Consisting of FAVORITE APPARATUS OUTFIT C, with the additional articles mentioned in Equipment A-A. (Dry Plates 5 x 8 size.)
Complete for field service, Price, \$21.00.

EQUIPMENT D-D.

Consisting of FAVORITE APPARATUS OUTFIT D, with the additional articles enumerated in A-A. (Dry Plates 6½ x 8½ inches.) Price, \$17.00.

Where sensitive Plates are taken to a photographer's and there developed, printed from, and mounted on card-board, any of the above Equipments lack nothing that is essential. We recommend the amateur to finish his own pictures, and hence to procure one of the equipments on page 30.

EQUIPMENT A-A-A.—Price, \$20.00.

Complete in every Requisite for making the Highest Class Pictures.

LACKING NOTHING FOR VIEW TAKING, DEVELOPMENT AND THE PRINTING AND MOUNTING OF PHOTOGRAPHS.

Consisting of *Favorite Apparatus* Outfit A.....\$10 00
Also 1 *Developing* Outfit 4 x 5 (see page 27)..... 5 25
" 1 *Printing and Toning* Outfit, 4 x 5 (see page 28)..... 4 87

EQUIPMENT B-B-B.—Price, \$24.50.

Complete in every Requisite for making the Highest Class Pictures.

Consisting of *Favorite Apparatus* Outfit B.....\$12 00
Also 1 *Developing* Outfit 5 x 8 (see page 27)..... 6 50
" 1 *Printing and Toning* Outfit 5 x 8 (see page 28)..... 6 38

EQUIPMENT C-C-C.—Price, \$31.00.

Complete in every Requisite for making the Highest Class Pictures.

Consisting of *Favorite Apparatus* Outfit C.....\$18 50
Also 1 *Developing* Outfit 5 x 8 (see page 27)..... 6 50
" 1 *Printing and Toning* Outfit 5 x 8 (see page 28)..... 6 38

EQUIPMENT D-D-D.—Price, \$28.00.

Consisting of *Favorite Apparatus* Outfit D.....\$14 00
Also 1 *Developing* Outfit 6½ x 8½ (see page 27)..... 7 00
" 1 *Printing and Toning* Outfit 6½ x 8½ (see page 28)..... 7 00

EQUIPMENT E-E-E.—Price, \$42.00.

Consisting of *Favorite Apparatus* Outfit E.....\$26 00
Also 1 *Developing* Outfit 8 x 10 (see page 27)..... 8 50
" 1 *Printing and Toning* Outfit (see page 28)..... 8 50

SCOVILL'S

Pure Chemicals & Accessories

FOR MAKING NEGATIVES.



We offer for use with any Outfit to make pictures 4 x 5 inches, the following goods packed securely in a wooden case:

1 pkg. S.P.C. Carbonate Soda Developer,	1 lb. Alum,
2 4 x 5 Glossy Rubber Pans,	1 bot. S.P.C. Negative Varnish,
1 4 oz. Graduate,	1 doz. 4 x 5 Dry Plates,
1 Minum Graduate,	1 Scovill Focusing Cloth,
1 oz. Bromide Ammonium,	1 Knock-down Lantern,
1 lb. Hyposulphite Soda,	1 Russell Negative Clasp.
	1 Handy Negative File.

PRICE, COMPLETE, \$5.25.

For use with any 5 x 8 Outfit we supply the same goods, with the exception of the substitution of 5 x 8 Pans and Plates for the 4 x 5 size.

PRICE, 5 x 8 DEVELOPING OUTFIT, \$6.50.

" 6½ x 8½	"	" 7.00.
" 8x10	"	" 8.50.

S. P. C.

Outfit for Printing, Toning, Fixing and Mounting 4 x 5 Pictures.

- | | | |
|--|-------------------------|---|
| 1 4 x 5 Printing Frame. | Price complete, \$4.87. | 1 lb. Hyposulphite of Soda. |
| 1 5 x 7 Porcelain Pan, Deep. | | 2 dozen sheets 6½ x 8½ Card-board with Gilt Form. |
| 1 4½ x 5½ S. P. C. Vulcanite Tray. | | 1 ½ Pint Jar Parlor Paste. |
| 2 dozen 4 x 5 S. P. C. Sensitized Albumen Paper. | | 1 1½ inch Bristle Brush. |
| 1 bottle French Azotate. } For | | 1 Glass Form (for trimming prints). |
| 1 " Chlor. Gold, 7½ gr. } toning. | | 1 Robinson's Straight Trimmer. |
| 1 2 ounce graduate. | | |

Securely packed in a box, which serves also for a fuming box.

**S. P. C.**

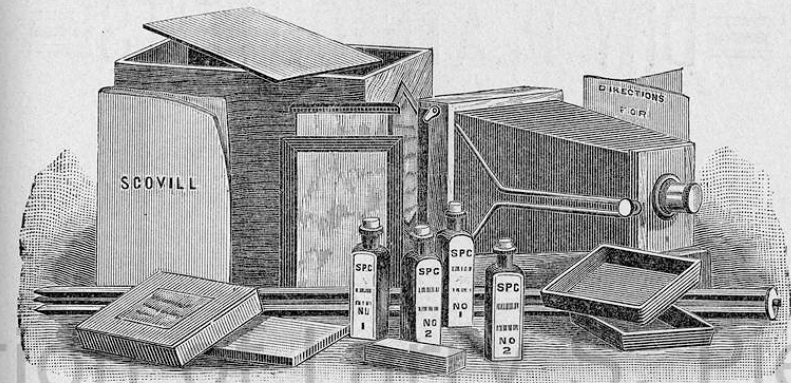
Outfit for Printing, Toning, Fixing and Mounting 5 x 8 Pictures.

This outfit is like the one on preceding page, but with Printing Frame, Vulcanite Tray, Sensitized Paper, and Card-board adapted for 5 x 8 Pictures.

Price complete, \$6.38. Securely packed in a Paper Box.

6½ x 8½ Printing and Toning Outfit. Price, \$7.00.
8 x 10 " " " " 8.50.

THE AMERICAN Scholars' Complete Outfit,

**CONSISTING OF**

- 1—4¼ x 5½ Camera, fitted with
- 1—4¼ x 5½ Dry Plate Holder,
- 1—Single Achromatic Lens and
- 1—Tripod;
- 1—doz. 4¼ x 5½ Gelatine Dry Plates,
- 2—4¼ x 5½ Japanned Trays,
- 1—3 oz. bottle S. P. C. Pyro and Potash Developing Solution, No. 1.
- 1—3 oz. bottle S. P. C. Pyro and Potash Developing Solution, No. 2.
- 1—6 oz. package of Hyposulphite of Soda,
- 1—package 4 x 5 S. P. C. Ready Sensitized Albumen Paper,
- 1—3 oz. bottle S. P. C. Toning Solution No. 1,
- 1—3 oz. " " " " No. 2,
- 1—sheet of yellow Post Paper, and

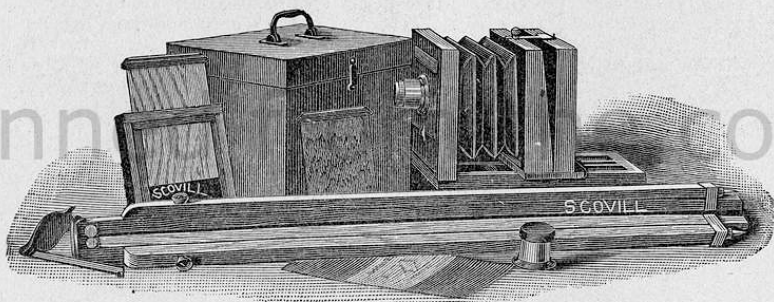
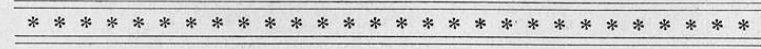
Full Directions for making Photographs with the above, packed securely in a neat wooden box.

Price, \$5.00.



DRY PLATE OUTFITS

INTRODUCED IN 1884.



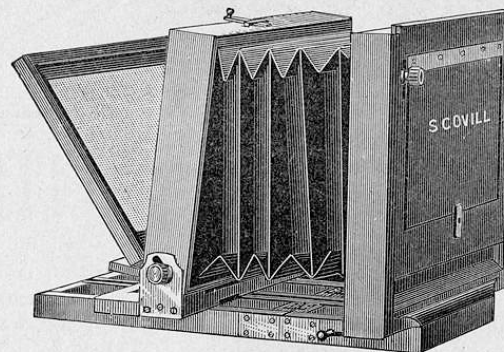
These outfits are unsurpassed in neatness, lightness, and compactness, and there is no question about their durability. Each one is supplied with a patent reversing attachment, which has been styled "the lightning reverser."

New York Outfit 601, size 4¼x5½, consisting of
 1 Finely Finished Single Swing Camera, with Folding Bed and Improved Dry Plate Holder.
 1 No. 1 Extension Tripod, with Patent Reversing Attachment.
 1 No. A Waterbury Lens, with a set of Stops, and
 1 Compact Carrying Case, with Handle. Price, \$10.00.

New York Outfit 602, size 5x8, same as described above, except in respect to size. Price, \$12.00.

New York Outfit 603, size 6½x8½, same as described above except in respect to size. Price, \$14.00.

WATERBURY OUTFITS.



THE WATERBURY CAMERAS, introduced in 1885, are like other cameras and apparatus made by the American Optical Company—unapproachable!

They are made of mahogany, are well polished, have rubber bellows, folding platform, *patent latch* for making bed rigid instantaneously, single swing, vertical shifting front, and are as light and compact as substantial cameras can be constructed.

Fitted with
 Eastman-Walker
 Roll-Holder.
 New Model,
 with
 Automatic Tally

4x5 Waterbury Outfits, Complete.....\$12 00 28 00

CONSISTING OF

- 1 Single Swing Camera, described above.
- 1 Scovill Double Dry Holder, with *Patent Registering Slides*.
- 1 Wooden Carrying Case.
- 1 Improved Taylor Tripod
- 1 No. A Waterbury Lens with a set of Stops.

LATEST SIZES INTRODUCED	}	4¼x5½ Waterbury Outfit, complete.....\$14 00
		4¼x6½ " " " " 15 00
		5x7 " " " " 16 00

5x8 Waterbury Outfits, Complete.....\$16 50 38 00

CONSISTING OF

- 1 Single Swing Camera, described above.
- 1 Scovill Double Dry Holder, with *Patent Registering Slides*.
- 1 Wooden Carrying Case.
- 1 Improved Taylor Tripod.
- 1 No. B Waterbury Lens with a set of Stops.

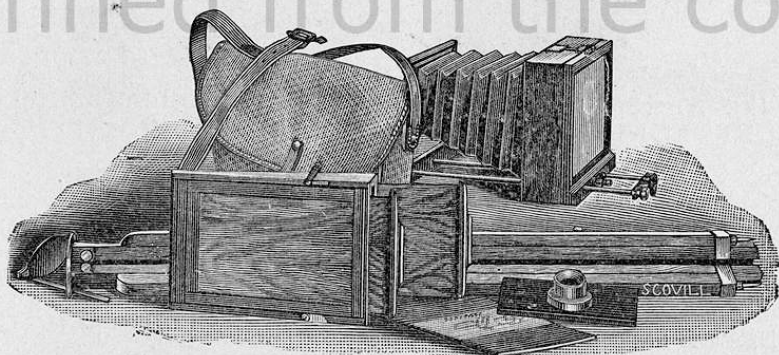
6½x8½ Waterbury Outfits, Complete....\$20 00 44 00

CONSISTING OF

- 1 Single Swing Camera, described above.
- 1 Scovill Double Dry Holder, with *Patent Registering Slides*.
- 1 Wooden Carrying Case.
- 1 Improved Taylor Tripod.
- 1 No. B Waterbury Lens with a set of Stops.

Tourists' Pocket Outfits,

When folded up, a 4 x 5 Tourists' Camera measures but $5\frac{1}{2} \times 6\frac{1}{4} \times 2$ inches, and it is without any projecting parts, pins or screws, so that it may be slipped into and not tear a gentleman's pocket. The rods which are used to move forward the front of the camera are easily detached from it and drawn out of the bed. The connector at the other end of the rods is just as readily unset. To replace these three parts when the camera is brought out for service, requires no more time or skill than to take them off. They are nicely adjusted, and are polished and nickel plated, so that they add to the handsome appearance of the camera, and contrast well with its polished mahogany surface and the purple hue of its bellows. The weight of this camera and its dry plate holder (but $1\frac{1}{2}$ pounds for the 4 x 5 size) is on the center of the tripod. In focusing, the front of the camera and the lens are pushed forward, thus avoiding any disarrangement of the focusing cloth. When the focus is obtained, further movement of the lens is checked or stopped by means of a screw acting on a spring, which is pressed at the ends against the focusing rods.



Tourists' Pocket Outfit No. 0206.—4x5 Tourists' Pocket Camera, with
1 Daisy Double Dry Plate Holder, with *Patent Registering Slides*.
1 Scovill Extension Tripod No. 1, with patent reversing attachment.
1 Canvas Carrying Case with Shoulder Strap.

Price, complete, \$21.00.

Tourists' Pocket Outfit No. 0207.—5x8 Tourists' Pocket Camera, with
1 Daisy Double Dry Plate Holder, with *Patent Registering Slides*.
1 Scovill Extension Tripod No. 2, with patent reversing attachment.
1 Canvas Carrying Case with Shoulder Strap.

Price, complete, \$28.00.

We recommend the purchase and use with the above Outfits of a Lens or Lenses selected from the list on page 53.

For Developing and Sensitized Paper Outfits to be used with the above, refer to pages 30 and 31.

CENTENNIAL OUTFITS.

(Introduced in 1876.)

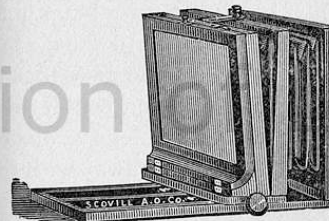
CENTENNIAL OUTFIT No. 202, price \$22.00, Consists of
A MAHOGANY POLISHED CAMERA for taking pictures 4 x 5 inches, with *Folding Bellows Body*, single swing, hinged bed, and brass guides. It has a shifting front for adjusting the sky and foreground, with
1 Daisy Double Dry Plate Holder, with *Patent Registering Slides*; also
1 Canvas Carrying Case.
1 No. 1 Scovill Adjustable Tripod.

CENTENNIAL OUTFIT No. 202 A, price \$24.00,

The same as No. 202, but with Camera for taking pictures $4\frac{1}{4} \times 5\frac{1}{2}$ inches.

CENTENNIAL OUTFIT No. 202 B, price \$26.00, for
pictures $4\frac{1}{4} \times 6\frac{1}{2}$ inches.

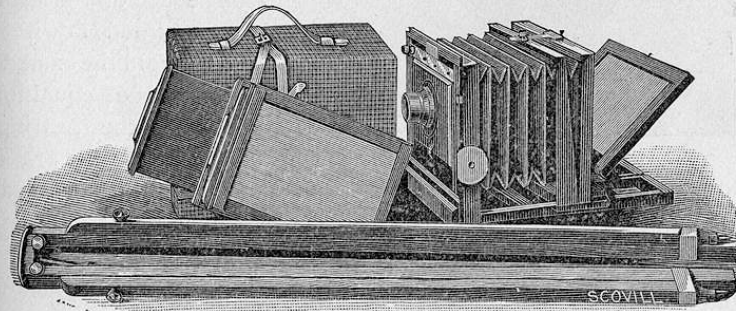
CENTENNIAL OUTFIT No. 203, price \$30.00, Consists of



A FOLDING MAHOGANY CAMERA, well known as the '76 Camera (see illustration). It is adapted for taking 5 x 8 inch pictures, and also for stereoscopic views—together with

1 Daisy Double Dry Plate Holder, with *Patent Registering Slides*; also
1 Canvas Carrying Case.
1 No. 2 Scovill Adjustable Tripod.

CENTENNIAL OUTFIT No. 204, price \$42.00, Consists of



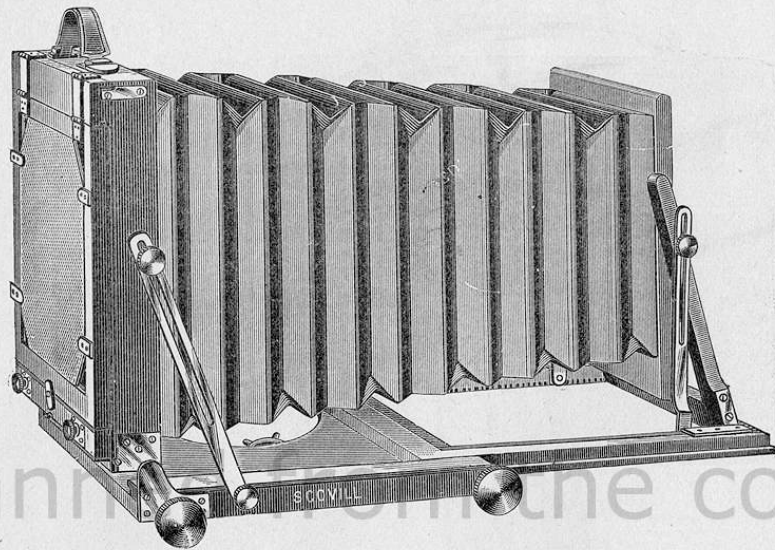
A FOLDING MAHOGANY CAMERA of finest style and finish for taking $6\frac{1}{2} \times 8\frac{1}{2}$ inch pictures, with

1 Daisy Dry Plate Holder, with *Patent Registering Slides*; also
1 Canvas Carrying Case.
1 Scovill Extension Tripod, No. 3.

For larger or special View Cameras, consult the American Optical Company's Catalogue.

We recommend the purchase and use with the above Outfits of a Lens or Lenses selected from the list on page 53.

For Developing and Sensitized Paper Outfits to be used with the above, refer to pages 27 and 28.

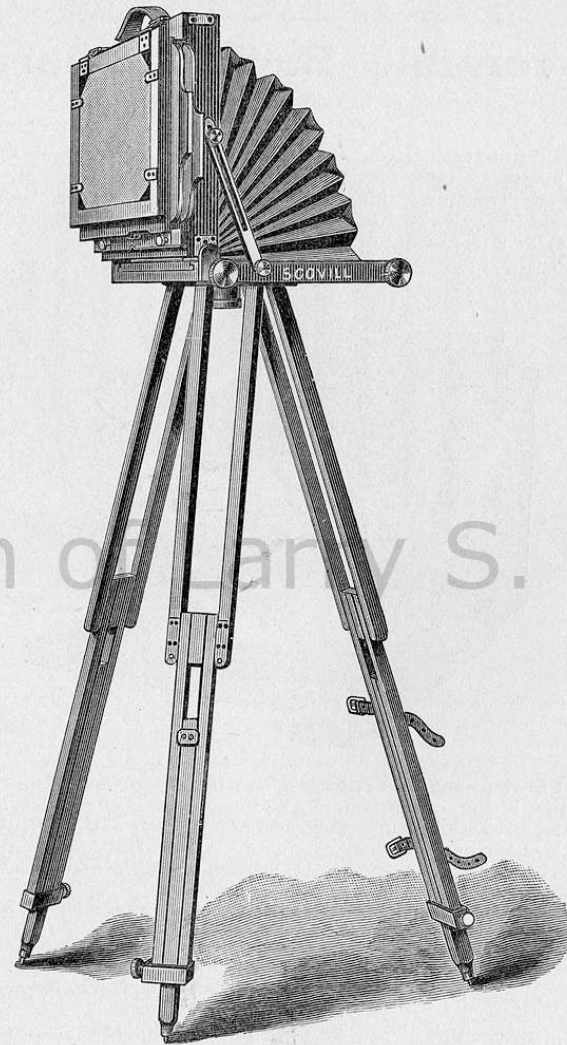


CAMERA EXTENDED.

The cut showing the Albion Camera partly folded, and the one showing the great length of platform when the extension bed is fully drawn out, really make extended comment unnecessary, but it will not do to pass by so lightly the DOUBLE PLATE HOLDERS fitted to the Albion Camera. All of the imported English holders (double backs, "you know"), warp when subjected to the severe test of our climate, and the slides refuse, without provocation, to move.

We have not or do not propose to imitate them, but fit the Albion Cameras with double holders, which we guarantee not to warp, and we put in them our patent Registering (Record) Slides.

The marked superiority of the Albion Cameras over any and all styles of English make will be more apparent on examination, or, better still, through using one of them.



CAMERA AND TRIPOD.

PRICE-LIST OF ALBION CAMERAS.

Each with Albion Tripod and Extra Fine Canvas Carrying Case.

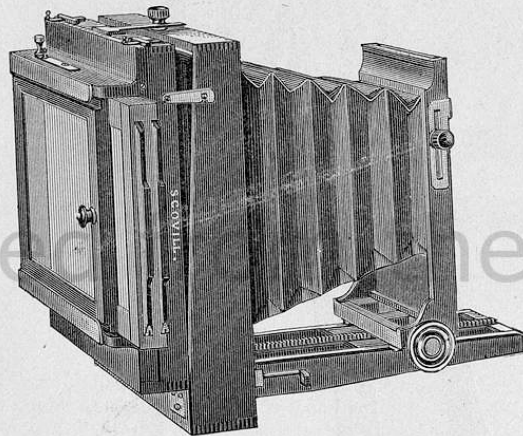
5	x	7	Size,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$48	00.
6½	x	8½	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	00.
8	x	10	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	00.

ST. LOUIS Reversible-Back Cameras.

(PATENTED.)

IN addition to the desirable features which the Back Focus Reversible Camera possesses (see description below) the St. Louis Reversible-Back Cameras have the rack and pinion movement, *patent latch* for making the bed rigid instantaneously, and the ground-glass so arranged that the holder may be slid in front of it, as shown in the illustration.

Each Camera is supplied with one Daisy Holder with *patent Registering Slides* and canvas case.



THE growing use of dry plates, and the desire for rapid exposures, led to the introduction of the American Optical Patented Reversible Back Cameras, and because they add to the grace and celerity of view-taking they have become vastly popular. A novel arrangement of a detachable carriage at the back combines such a multiplicity of adjustments in itself that a dry-plate holder may be reversed or be set for either an 8x10 upright or horizontal picture—all of these movements, without once changing the dry-plate holder in the carriage.

SAINT LOUIS REVERSIBLE-BACK CAMERAS.

For View.	Single Swing-back.	Double Swing-back.	Fitted with Eastman-Walker Roll Holder. New Model with Automatic Tally.	
			Single Swing-back.	Double Swing-back.
4 x5	\$25 00	\$29 00	.....	.....
4 1/4 x5 1/2	26 00	30 00	.....	.....
4 1/4 x6 1/2	30 00	34 00	.....	.....
5 x7	32 00	35 00	\$52 00	\$55 00
5 x8	34 00	38 00	54 00	58 00
6 1/2 x8 1/2	36 00	40 00	60 00	64 00
8 x10	40 00	44 00	70 00	74 00
11 x14	60 00	64 00	102 00	106 00

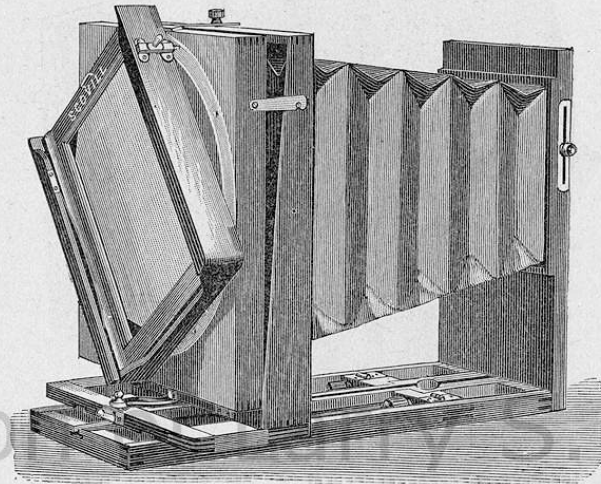
Not made above 11x14 size.

Canvas cases to contain Camera with more than one Holder made to order at extra price.

Flammang's Patent Revolving-Back Cameras.

(PATENTED.)

Each Incased in a Canvas Bag, with Handle.



(BACK FOCUS PATTERN.)

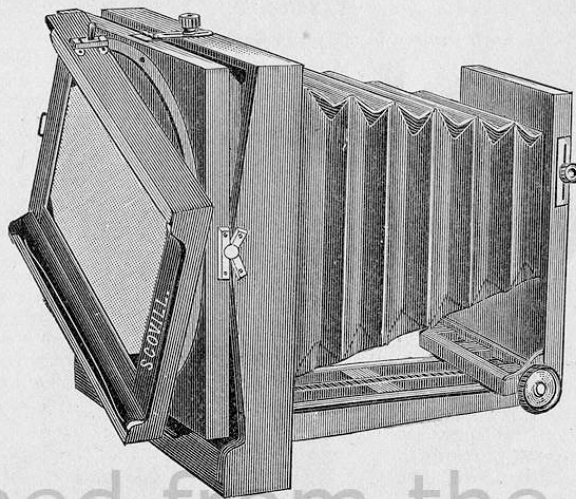
"These are the finest View Cameras ever constructed," so says every photographer who has examined any of them, and this exclamation is not merely a tribute to the beauty and grace of their design, for invariably the desire has at the same time been expressed to possess one of these truly novel and substantial Cameras.

Wherein lies the merit and attractiveness of the Revolving-Back Camera, that photographers want to cast aside cameras now in use and procure one of this new pattern? Briefly stated, it enables the view taker to secure either an upright or a horizontal picture without changing the plate holder after it has been slid into the carriage. No other camera can with such wondrous ease and celerity be changed from the vertical to the upright or *vice versa*. The carriage is simply turned about in the circle and automatically fastened. By this latter provision the carriage may be secured at either quarter of the circle. Ordinarily, the slide will be drawn out of the holder to the right; but in certain confined situations, the ability to withdraw the slide to the left enables the photographer to obtain a view which he could not get with the usual provision in a camera. The photographer of experience is well aware of the difficulty, when taking an upright picture with a large camera without the revolving back feature, of reaching up to draw out the slide at the top, and, what is more essential, of getting out the slide without fogging the plate in the holder.

Grace and strength are combined in the Revolving-Back Camera, and its highly-desirable features are gained without the sacrifice of steadiness or any other essential principle in a good camera. Indeed, its merit is such that out-door photography has been advanced and made more attractive by its introduction.

Revolving-back Camera.

(PATENTED.)



(FRONT FOCUS PATTERN.)

PRICE LIST.

Revolving-back Cameras, each incased in a canvas bag, with handle, and above 14x17 size, with two handles.

	REVERSIBLE.	Single Swing.	Double Swing.	Fitted with Eastman-Walker Roll Holder New Model, with Automatic Tally.	
				Single Swing.	Double Swing-back.
550A.	For View 4 x 5 in.	\$31 00	\$36 00	\$46 00	\$51 00
551.	" 4¼ x 5½ "	33 00	38 00	.....	.....
551AB.	" 4¼ x 6½ "	34 00	39 00	.....	.....
551A.	" 5 x 7 "	35 00	40 00	55 00	60 00
551B.	" 5 x 8 "	35 00	40 00	55 00	60 00
552.	" 6½ x 8½ "	45 00	50 00	69 00	74 00
553.	" 8 x 10 "	50 00	55 00	80 00	85 00
554.	" 10 x 12 "	65 00	70 00	101 00	106 00
555.	" 11 x 14 "	77 50	82 50	119 50	124 50
556.	" 14 x 17 "	90 00	95 00	140 00	145 00
557.	" 17 x 20 "	105 00	110 00	170 00	175 00
557A.	" 18 x 22 "	110 00	115 00	185 00	190 00
558.	" 20 x 24 "	120 00	130 00	200 00	210 00
559.	" 25 x 30 "	165 00	175 00	.....	.....

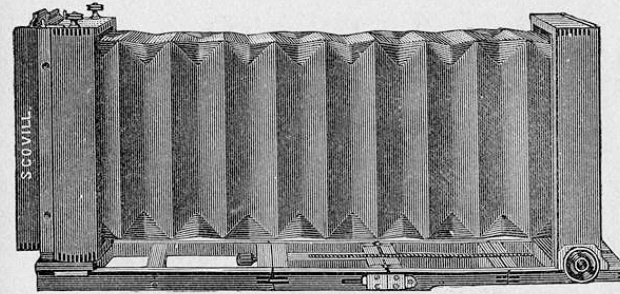
These Cameras are fitted with Daisy Dry-plate Holders.

Please state, when ordering any size below 10x12, whether front or back focus is desired.

Revolving-back Cameras, front focus, not made above 8x10 size.

Canvas cases to contain Camera with more than one Holder made to order at extra price.

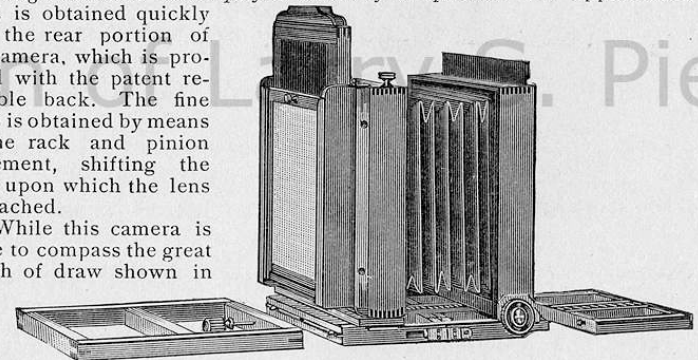
THE SCOVILL MANIFOLD CAMERA.



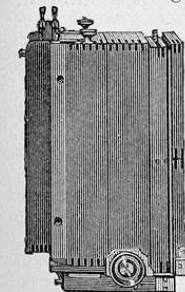
While this camera serves manifold purposes as its name indicates, nothing could be more simple or more easily manipulated. The Manifold Camera has

special advantages peculiar to itself and possesses the greatest number of desirable features which can be combined in a camera without sacrificing lightness and compactness, or having complicated adjustments. The unique device which controls the horizontal and vertical swings was patented by Mr. W. J. Stillman, of the editorial staff of the PHOTOGRAPHIC TIMES. To this has been added a central latch for the purpose of bringing the swing movements within perfect control of the operator. An approximate focus is obtained quickly with the rear portion of the camera, which is provided with the patent reversible back. The fine focus is obtained by means of the rack and pinion movement, shifting the front upon which the lens is attached.

While this camera is made to compass the great length of draw shown in



the first illustration, the rear portion of the bed may be wholly detached and when desired, one-third of the remaining portion of the platform; a great advantage when photographing interiors, when an obtrusive tail board renders focusing almost an impossibility. With one-half of the bed taken



off, this camera is still of the usual length of draw. The ground glass, when not in use, is displaced, *not detached*, by having the plate holder slid in front of it. This arrangement of ground glass and plate holder is shown in the second view. Still another noticeable feature is the absence of clamping screws from the front boards, to move which one needs but to press firmly against the lens. The bed folds in front of and behind the camera, and has the patented latch recently devised at the American Optical Co.'s factory. PRICE LIST, including Canvas Case for Camera and one Holder, with *patent Reg. Slides*.

3¼x4¼ size... \$34 00	4¾x6½ size....\$41 00	6½x8½ size. ... \$52 50
4x5 size..... 38 00	5x7 size 42 00	8x10 size. 58 00
4¼x5½ size... 40 00		

Fitted with Eastman-Walker Roll Holder, New Model:

4x5 size, \$53 00; 4¼x6½, \$58 50; 5x7, \$62 00; 6½x8½, \$76 50; 8x10 \$88 00

Latest Detective Camera.

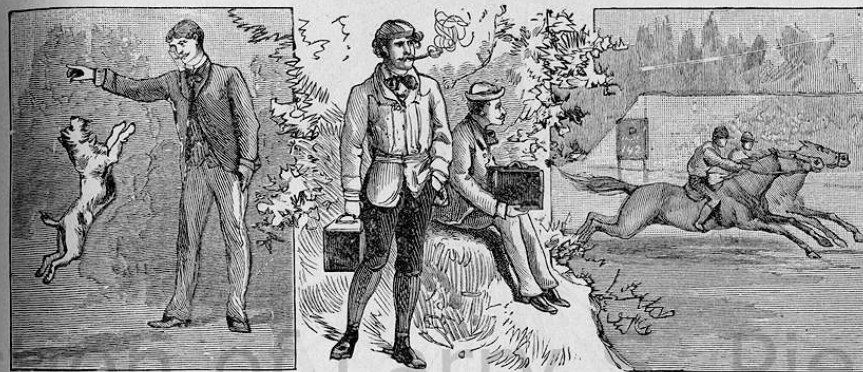
THE Waterbury Detective Cameras having proved to be so popular, we have concluded to introduce another Detective Camera of this style, fitted with Roll-Holder instead of Double Dry-Plate Holder. This new Camera has the Automatic Tally, without which no Roll-Holder is complete, and is very compact and light, weighing but a little over three pounds.

Every Waterbury Detective Camera is fitted with a Wide Instantaneous Lens, has a recessed Finder, and a Tripod Plate for use with a Tripod. It has a Cap, and is perfectly adapted for timed as well as instantaneous exposures.

4 x 5 Waterbury Detective Camera, with 2 Double Holders,	- -	\$25.00
4 x 5 " " " " Roll-Holder,	- - -	35.00

MANY Amateurs have declared that the pleasure of picture taking was not fully revealed to them until they had procured and tried one of the

SCOVILL DETECTIVE CAMERAS.



Scovill's Detective Camera, for $3\frac{1}{4} \times 4\frac{1}{4}$ pictures with the marvelous Optimus Lens and three double Dry-plate Holders.....	\$50 00
Scovill's Detective Camera, for 4x5 pictures, with the marvelous Optimus Lens and three double Dry-plate Holders.....	60 00
$4\frac{1}{4} \times 6\frac{1}{2}$ Detective Camera, with Beck Lens and three double Dry-plate Holders.....	90 00
5 x 7 Detective Camera, with Beck Lens and three double Dry-plate Holders.....	100 00

It followed naturally upon the introduction of the Roll Holder that it should be applied to the SCOVILL DETECTIVE CAMERA, and this has been done in a manner that displays the greatest ingenuity.

Attached to each is the Patent Automatic Tally, to record the number of exposures made.

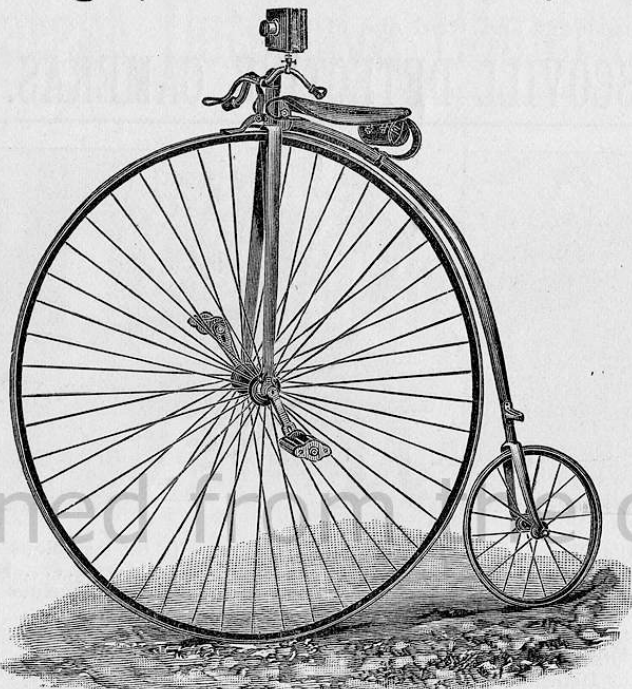
No Roll Holder Camera is complete without this.

Scovill's Roll Holder Detective Camera, for $3\frac{1}{4} \times 4\frac{1}{4}$ Pictures, with the marvelous Optimus Lens, Roll Holder, with Automatic Tally, and one double Dry-plate Holder.....	65 00
Scovill's Roll Holder Detective Camera, for 4x5 Pictures, with the marvelous Optimus Lens, Roll Holder, with Automatic Tally, and one double Dry-plate Holder.....	75 00

It has not come to be generally known, but such is the fact, that Artists of renown and shrewd Detectives carry about these Cameras, and pictures are secured by them for their different lines of study through their instrumentality in a manner which is perfectly simple—in fact, it requires no skill other than to get within the range of focus of the unsuspecting victim. As the party, whether man, woman, or child, is not aware that anything unusual is transpiring, the expression of the countenance and the pose are not arranged with reference to their appearance in a picture. A quick working lens is hidden in the camera, and also a few plate holders. By pressing on a spring the whole operation of exposure is completed.

POCKET

Photographic Outfits for Bicyclists.



WITH WHICH TO SECURE MEMENTOES OF PLEASANT EXCURSIONS.
So popular has amateur photography become among wheelmen, that the two amusements are now often combined. The Camera allows unbounded opportunities to the amateur bicyclist to gather choice landscape views.

BICYCLISTS' "POCKET" PHOTO-OUTFIT,

Consisting of a 3½x4½ "Pocket" Camera, with Double Dry Plate Holder, with *patent Registering Slides* and Hinged Ground Glass. This Camera weighs only 12 ounces.
A UNIVERSAL JOINT BICYCLE ATTACHMENT.
A. S. M. C. INSTANTANEOUS LENS, with Stops.
The "Pocket" Bicycle Camera weighs only 12 ounces.

PRICE, - - - \$12.00.

NICKEL-PLATED BICYCLE ADJUSTABLE SUPPORT\$1.50
This has no loose pieces, and is so accurately made as to have no side play.

THE "MIGNON" BICYCLISTS' PHOTO-OUTFIT,

(COMPLETE).

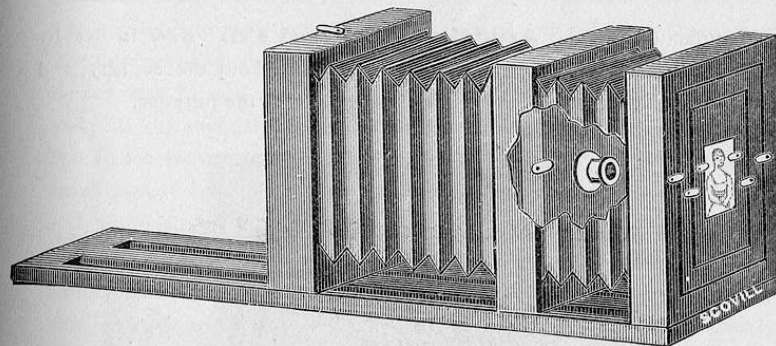
Consisting of a 3½x4½ Finely Polished Mahogany Camera, with Swing Back, Vertical Shifting Front, Hinged Ground Glass, Folding Bed, with *Patent Latch*, Rack and Pinion Movement (Front Focus).

A *Universal Joint Bicycle Attachment*.
A *Morrison Bicycle Lens*, pronounced by authorities on optics to be without a peer.
A *Canvas Saddle Bag* lined with flannel, to prevent marring of the fine finish of the camera.

Price of "Mignon" Bicyclists' Photo-Outfit Complete, \$50.00.
Without Lens \$25.00.

With the lenses just described, clear, sharp pictures can be obtained which will make fine transparencies and lantern slides, or they can be enlarged up to 8x10 size.

The Scovill Enlarging, Reducing and Copying Cameras.



When ordering, please specify number and sizes of kits wanted.

Size, 6½x8½,	Price, \$30.00	Size, 11x14,	Price, \$60.00
" 8x10,	" 35.00	" 14x17,	" 72.00
" 10x12,	" 48.00		
		Size, 17 x 20,	\$90.00.

Special sizes and styles made to order.

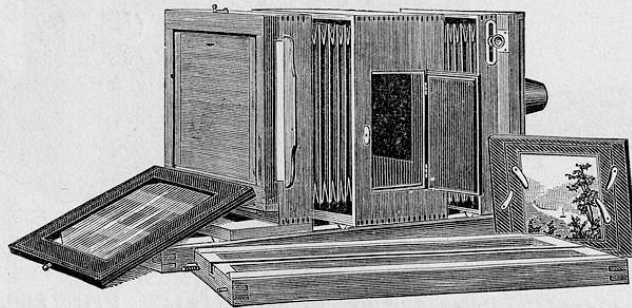
The form of construction of this new Camera is made apparent by the illustration here shown. The experienced copyist will not need any such simple directions for use as we append.

DIRECTIONS FOR USE.

To copy a negative in the natural size, place it in the kit on the front of Camera and button it in. Attached to the center frame of the Camera is a division upon which, on the side toward the Camera front, a Lens is mounted. Suppose this to be a quarter-plate Portrait Lens, the focal length of which we will suppose to be 4 inches—draw back the center frame and the Lens twice the focal length of the Lens (8 inches); slide the back frame with ground glass the same distance from the center frame. To enlarge with the same Lens to eight times the size of the original, the center of the Lens must be 4½ inches from the negative, and the ground glass be 36 inches from the center of the Lens. To reduce in the same proportion, reverse and have 36 inches from the center of the Lens to the negative, and from the center of Lens to ground glass 4½ inches.

WALMSLEY'S PHOTO-MICROGRAPHIC CAMERA.

Manufactured by the **American Optical Co.** Now in use by many Colleges and leading Microscopists throughout the country, and is an efficient, practical and cheap instrument for the purpose.



It is made in two forms: the cheaper (selling for \$18.00) is adapted only to the making of negatives on plates $3\frac{1}{4} \times 4\frac{1}{4}$, or $4\frac{1}{4} \times 5\frac{1}{2}$, as may be necessary. The complete form (costing \$30) is also a miniature enlarging, reducing, and copying camera, admirably adapted to the production of lantern transparencies from any size negative up to $4\frac{1}{4} \times 5\frac{1}{2}$.

The camera (of mahogany) is square, carrying a Flammang single plate holder for $4\frac{1}{4} \times 5\frac{1}{2}$ plates; usable vertically or horizontally, and with kits for $3\frac{1}{4} \times 4\frac{1}{4}$ plates. The bellows are in two sections, with a central division of mahogany, which carries a removable partition, to which a suitable rectilinear photographic lens can be attached, for enlarging, reducing, or copying. A light-tight door on one side of this wooden section gives ready access to the lens for inserting or removing diaphragms, or other necessary manipulations, whilst a milled head, accessible from the same opening, clamps the lens bearing section firmly to the bed of the camera at any desired point.

The bellows have an extension of two feet in addition to the length of the box, sliding very smoothly upon V-shaped ways, which for greater convenience are made in two sections, firmly attached to each other by wooden dowels, and a solid brass screw, worked by a milled head.

The bellows are firmly held at any desired point of extension by a cam, operated by a lever conveniently placed at the rear of the focusing screen which latter is hinged at the bottom, and when not in use, lies out of the

way upon the extension bed. The screen itself is of the very finest ground glass, but is used only for arranging the portion of the object to be photographed properly in the center of the plate, as no surface can be ground finely enough to permit the sharp focusing of any delicately-lined object. For this purpose, a circle or disc of thin microscopic covering glass is attached with balsam to the center of the ground-glass screen, which clears away all the inequalities of the latter, and leaves an exquisitely fine surface to receive the image, which by using an ordinary focusing glass may be as sharply defined as in the eye-piece of the microscope.

The front of the camera (which is double-shifting, for the purpose of centering), carries a cone-shaped tube, which receives the tube of the microscope when the latter is inclined to a horizontal position, and conveys the image bearing rays of light therefrom into the body of the camera. This cone is removable, and in its place may be inserted kits, carrying negatives from quarter to half size for enlargement, or reduction to lantern slides as may be desired. Or a front board, bearing a lens, may be inserted in its place, converting the camera into a copying one. Indeed, a more complete instrument for all the purposes for which it was devised could scarcely be conceived or desired.

In use, the camera is attached to a solid platform (which also carries the microscope and lamp) by a screw such as is used with an ordinary tripod. By this means any jar or tremor produced by a passing vehicle or other means, is communicated to microscope and camera alike, preventing any diminution of sharpness in the negative. By this arrangement also, the whole apparatus is so compact that, with the bellows closed, the operator can easily see the image upon the ground glass, and at the same time reach the milled heads upon the microscope controlling the stage and focusing movements, permitting the arrangement of the subject with the greatest nicety. But when the bellows are extended to their full length, some appliance becomes necessary to operate the fine adjustment of focus, whilst the eye can discern the changes upon the screen. This is most simply effected in the employment of a fine cord passing in a groove around the periphery of the milled head of the fine adjustment screw, and thence through a series of hook eyes to the rear of the camera bed, where it is held taut by a couple of leaden weights. The slightest pull upon either cord moves the fine adjustment screw with the utmost nicety.

PRICE.

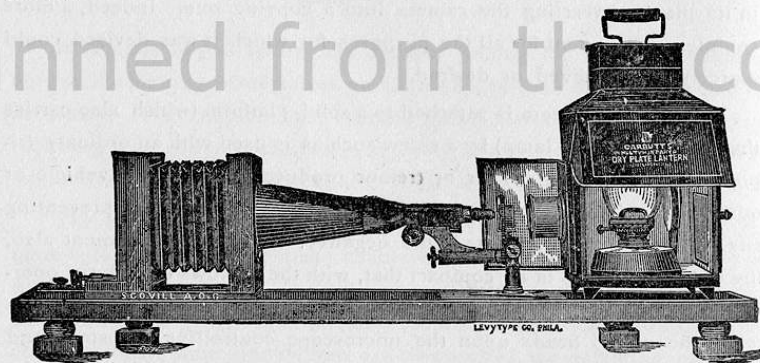
Walmsley Micro-Camera.....	\$18 00
“ “ enlarging, reducing, and copying pattern ..	30 00

SCOVILL'S OUTFIT

For **PHOTOGRAPHING** with the **MICROSCOPE**.

Photographing with the microscope has hitherto been accomplished by the aid of elaborate and costly apparatus, and been applied chiefly to making illustrations for scientific magazines. The process used, that of wet collodion in connection with sunlight, involved the procurement of an expensive heliostat to produce a steady illumination, for with any less powerful light the exposure would necessarily be so prolonged that the coating of the plate would dry and become useless. Now all this is changed, for with the modern improvements in photography which are the result of the introduction of gelatine dry plates, the photographing of microscopic objects becomes as easy of accomplishment as the photographing of the beautiful and visible in nature is with the popular amateur outfits.

The scientist and microscopist, instead of spending hours in making imperfect drawings, aided by the camera lucida, may in a few minutes, with the assistance of photography, produce a more perfect representation of a minute object than it is possible for the hand of man to do, working conjointly with the eye. Not only can an enlarged image of a microscopic object be formed for illustration, but professors in colleges will find it a ready means to produce negatives of a suitable size from which may be made transparencies or magic lantern slides for exhibition to classes or the public.



If this is done in the daytime, a room from which all white light is excluded should be selected; but if used at night, as in most cases it would be, the operations may all be performed in the midst of a family group for their interest and amusement, and to impart to them knowledge of the minute life or organisms of the world which the microscope alone can reveal.

Scovill's Photomicroscopic Equipment,

— CONSISTING OF —

- 1 Scovill Special Half Plate Camera.
- 1 Multum in Parvo Lantern, with Double Condenser.
- 1 dozen $4\frac{1}{2} \times 5\frac{1}{2}$ size B Keystone Plates to make Negatives; also
- 1 dozen $3\frac{1}{2} \times 4\frac{1}{4}$ size A Plates for Transparencies.

Price, Complete, \$18.00.

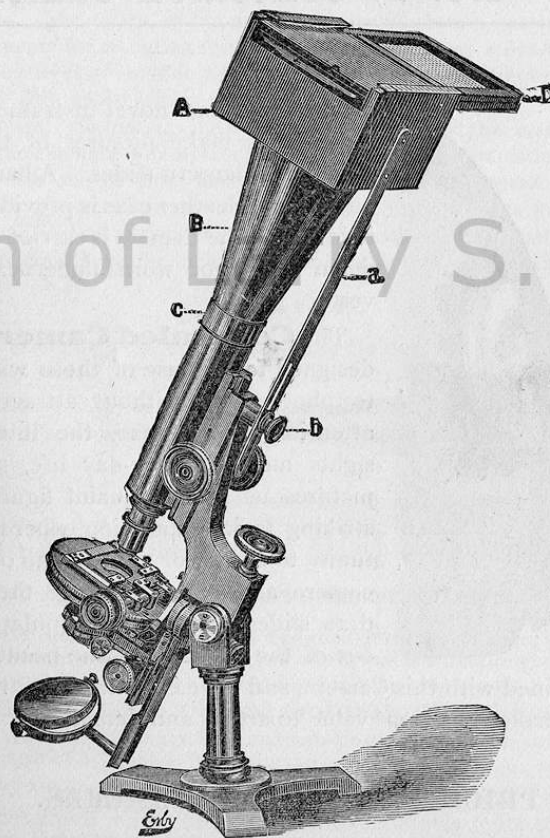
The presumption is that you are provided with a microscope. If not, we recommend the purchase of one from a regular dealer in microscopical goods.

Circular containing directions for use sent with each outfit.

MERCER PHOTO-MICROGRAPHIC CAMERA.

Size, $2\frac{3}{4} \times 3\frac{1}{4}$.

— Price, \$7.50. —

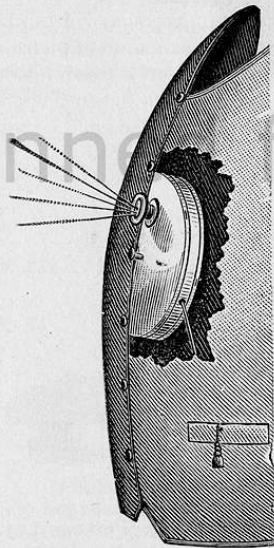


This Camera is provided with a Brass Cone and Plate Holder with Ground Glass attached, to slide back and forth in the carriage, as desired.

SEND FOR PHOTOGRAPH

MADE WITH THE

New (No. 2) Concealed Camera.



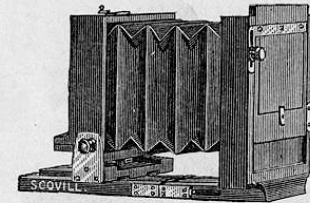
This new and novel instrument was planned to make pictures of the size suitable for lantern slides. A handsome velvet-lined leather case is provided with it in which the Camera is carried or used when it is not worn underneath the vest.

The **Concealed Cameras** are designed for the use of those who wish to photograph, without attracting the attention of any one, the interesting sights met in every-day life, such as picturesque groups, quaint figures, and striking facial expression, where opportunity to sketch or to set up an ordinary camera and tripod, arrange the focus, draw slides, and such manipulation are out of the question. The beautiful results obtained with this Camera, and the ease with which they are secured, make it of great value to artists and detectives.

PRICE OF CONCEALED CAMERAS.

		Keystone Plates.	Film Carriers.	Am. Films in 2 doz. pkgs.	Skins in 2 doz. pks.
No. 1, in Sliding-cover Box,	\$15.00	\$1.20	\$0.50	\$1.75	\$0.38
No. 2, in Velvet-lined Leather Case,	25.00	1.65	0.75	2.55	0.50

THE PETITE CAMERA.



This camera was made to suit the refined taste of one of Vassar's fair students. The design on the part of the manufacturers was to reduce the impedimenta for an outing to the minimum, providing a $3\frac{1}{4} \times 4\frac{1}{4}$ camera (to make negatives of suitable size for lantern slides), with single swing, folding bed with *patent latch*, vertical shifting front, and other desirable improvements. So well has the design been carried out that many ladies will follow the example of Vassar's pupils, and learn the fascination of picture-taking with one of these finely-polished mahogany cameras. Gentlemen in search of a pocket camera need not seek further. The Petite Camera and an enlarging camera will by many be considered a satisfactory and complete equipment for such photographing as they desire to do.

PRICE.

- Petite Camera with one double Dry-Plate Holder, and *patent Registering Slides*.....\$12 00
- Same Camera with canvas bag, with shoulder strap and Scovill's Adjustable (feather weight) Tripod..... 17 00

Scovill's "Peerless" Quick-Acting Stereoscopic Lenses,

FOR PORTRAITURE OR VIEWS.

These Lenses are especially designed for Stereoscopic Photography, and are so constructed that they will work well for interiors or exteriors.

They are particularly adapted for instantaneous work.

Diameter of Lenses, $1\frac{1}{2}$ inch; focal length, $3\frac{1}{2}$ inches.

By removing the back lens and substituting the front combination a focal length of $5\frac{1}{2}$ inches is obtained.

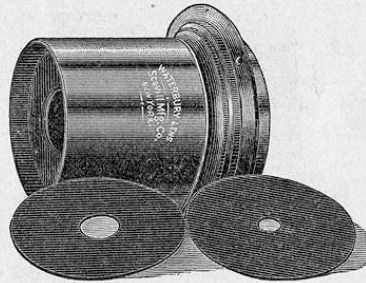
They are supplied with six Waterhouse diaphragms in morocco case
Price, per pair.....\$25 00

Imitation Dallmeyer Lenses.....each, 9 50
" " Lenses, matched for Stereoscopic Work, per pair, 17 00

SCOVILL'S PORTRAIT LENS,

For $3\frac{1}{4} \times 4\frac{1}{4}$ and 4×5 Portraits, or in pairs for Stereoscopic Views on 5×8 plate..... \$8 75

WATERBURY LENSES.



The unprecedented success which has everywhere resulted from the employment of the smaller Waterbury Lenses—those for 4 x 5 and 5 x 8 respectively (and which are achromatic combinations composed of a bi-convex Lens of crown glass cemented to a plano-convex Lens made of the best flint glass)—has induced the Scovill Manufacturing Company to extend the capabilities of this favorite objective, and to issue one of larger dimensions and longer focus than either of the others.

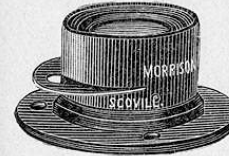
This new lens, which is designated "The 'C' Waterbury Lens," possesses all the excellent qualities of those of smaller size, while it takes a negative of greatly increased dimensions. It produces a negative on an 8 x 10 plate with great perfection, although some photographers do not hesitate to use it on a 10 x 12 plate. The lens is constructed of the finest optical glass, and has a diameter of 2 1/4 inches, its focus being 15 inches. When the largest stop is employed this lens is capable of producing fine portraits—especially busts—on a twelve-inch plate.

It has diaphragms of three different diameters, these being carefully calculated so as to suit the various exigencies under which a lens is employed.

PRICE.

- A, Single, for 4 x 5 plate.....\$3 50
- A, Matched pair, stereoscopic..... 7 00
- B, Single, for 5 x 8 plate..... 4 50
- BB, Single, for 6 1/2 x 8 1/2 plate..... 6 00
- C, Single, for 10 x 12 and 8 x 10 plate..... 8 00

Morrison Wide-Angle View Lenses.



Patented May 21, 1872.

These Lenses are absolutely rectilinear; they embrace an angle of fully 100 degrees, and are the most rapid, and are universally conceded to be the best *wide-angle* lenses made.

No.	Diameter of Lens.	Size of Plate.	Equivalent Focus.	Price.	
1....	3/4 inch..	3 1/4 x 4 1/4 inch...	3 inch, each,	\$25 00	} These 5 sizes will fit into 1 flange.
2....	1 " ..	4 x 5 " ..	3 1/2 " " " "	25 00	
3....	1 " ..	4 1/2 x 7 1/2 " ..	4 1/4 " " " "	25 00	
4....	1 " ..	5 x 8 " ..	5 1/4 " " " "	25 00	
5....	1 1/4 " ..	6 1/2 x 8 1/2 " ..	6 1/2 " " " "	25 00	
6....	1 " ..	8 x 10 " ..	8 " " " "	30 00	} These 2 sizes will fit into 1 flange.
7....	1 1/4 " ..	11 x 14 " ..	10 1/2 " " " "	40 00	
8....	1 1/4 " ..	14 x 17 " ..	14 " " " "	50 00	} These 3 sizes will fit into 1 flange.
9....	1 1/2 " ..	17 x 20 " ..	17 " " " "	60 00	
10....	1 3/4 " ..	20 x 24 " ..	22 " " " "	80 00	
11....	1 3/4 " ..	25 x 30 " ..	28 " " " "	100 00	

Nos. 1 to 6 are all made in matched pairs for stereoscopic work. The shorter focused Lenses are especially adapted for street and other views in confined situations. For general purposes, a pair of No. 5 Lenses will be found most useful.

Morrison Combination Wide-Angle Lens.

Opening the velvet-lined morocco case containing this lens you will find partitioned-off space containing an ordinary 5-inch Morrison Wide-Angle Lens, on which the front and back combinations are distinctly marked with the figure 5.

Besides this, in cells, are four mountings with lenses of varying focal lengths, each marked in white with a number. By unscrewing the back combination marked 5, and putting in its place the mounting marked 6, a lens of 6-inch back focus is obtained.

Again, by removing both these cells and replacing them with the two marked 8, a lens of 8-inch back focus is the result.

By screwing in the front combination marked 5 and the back combination marked 4, a lens of 4-inch back focus is obtained.

Putting a front combination marked 8 and a back marked 6, a focus of 7 inches is produced.

Thus the operator has a choice of five focal lengths with the one lens.

- No. 1 Morrison Combination Wide-Angle Lens.....\$80.00
- No. 2 " " " " 55.00

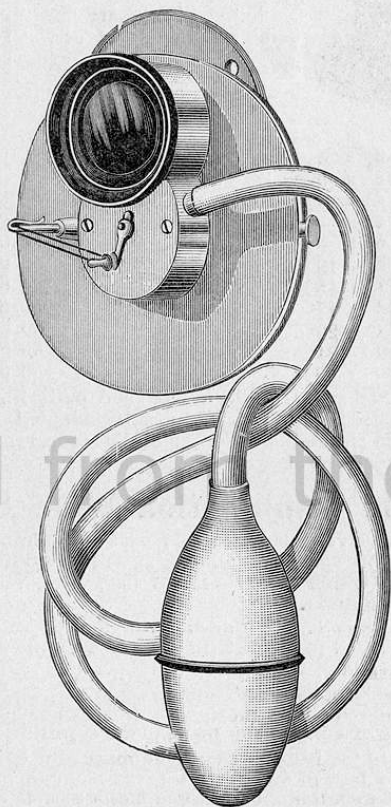
Making 4, 5 and 6-inch lenses.

Morrison Instantaneous Wide-Angle View Lenses.

With full opening, these Lenses have all the extreme depth for which the Morrison Regular Wide-Angle Lenses are noted. They work with extreme rapidity, and will cover an angle of 90 degrees sharp. Furnished with a set of diaphragms.

Diameter of Lens.	Size of Plate, Full Opening.	Size of Plate when Stopped Down.	Focus.	Price.
7/8 inch.	4x 4 inches.	5x 7 inches.	6 inches.	\$30 00
1 "	4x 5 " "	8x10 " "	8 " "	35 00
1 1/4 "	5x 8 " "	10x12 " "	10 " "	40 00
1 3/4 "	8x10 " "	14x17 " "	12 " "	45 00

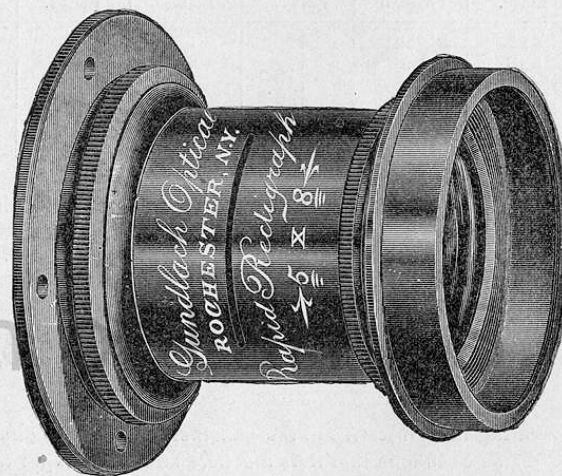
The Wale Universal Lenses.



For Landscapes, Groups, Portraits, and Instantaneous Views.

6 in.	back focus,	for 5	x 8	Plates and under	(without Shutter)	..\$25 00
6	"	"	"	5	x 8	" " { (with Instantaneous } 35 00
						and Time Shutter) }
8	"	"	"	6½	x 8½	" " (without Shutter).. 33 00
8	"	"	"	6½	x 8½	" " { (with Instantaneous } 43 00
						and Time Shutter) }
10	"	"	"	8	x 10	" " (without Shutter).. 40 00
10	"	"	"	8	x 10	" " { (with Instantaneous } 50 00
						and Time Shutter) }

GUNDLACH Rapid Rectigraphic Lenses.



The splendid qualities of the **Rectigraphic** (it being constructed on a principle superior to that employed in the construction of any other photographic lens in the market), have won for it, in the short time it has been before the photographic public, a well recognized place in the front rank of photographic objectives.

It possesses all the qualities required to make it equally valuable for either Landscape or Portrait Work. For the latter purpose we recommend especially the larger sizes, from No. 4 up. When used with the Modern Dry Plate they will equal the best Portrait Lenses in rapidity, while, with their full opening, they have wonderful depth and microscopic sharpness.

The RECTIGRAPHIC is superior to any lens in the market in flatness of field, and is the only one that can be focused sharp at the extreme edge of the field, being free from astigmatism.

Each lens is supplied with a set of Diaphragms in a morocco case.

GUNDLACH

Rapid Rectigraphic Lenses.

DESCRIPTION AND PRICE.

No.	Size of Plate.	Size of Portrait.	Diam. of Lenses.	Back Focus.	Equivalent Focus.	Price.
1	4x5	3¼x4¼	1	5⅞	6¼	\$20.00
2	5x8	4x6	1¼	7½	8	30.00
3	6½x8½	5x8	1½	9¼	10	38.00
4	8x10	6½x8½	1¾	11	12	50.00
5	10x12	8x10	2	13⅞	14¼	64.00
6	11x14	10x12	2¼	15¼	16½	76.00
7	14x17	12x15	2⅞	17½	19	125.00
8	17x20	16x18	3	20	22	150.00

GUNDLACH

Wide-Angle Rectigraphic Lenses.

In presenting this Objective to the consideration of the photographic public, we do so confident that it is the best and most rapid wide-angle Photographic objective in the market. It is absolutely rectilinear, and possesses, in so far as any wide-angle lens can, the qualities that have won so much favor for the RAPID RECTIGRAPHIC.

No.	Size of Plate.	Diameter of Lenses.	Back Focus.	Equivalent Focus.	Price.
1	5x7	⅞ in.	4½ in.	4½ in.	\$24.00
2	6½x8½	1⅞ "	5⅞ "	6 "	30.00
3	10x12	1½ "	7⅞ "	8 "	40.00
4	14x17	2 "	9¾ "	10½ "	55.00
5	17x20	2⅞ "	13¼ "	14 "	80.00

List of Caps, Diaphragms, Etc., for the Rapid Rectigraphic Lens.

	1	2	3	4	5	6	7	8
Flange.....	\$0.45	\$0.65	\$0.75	\$1.00	\$1.30	\$1.60	\$2.50	\$3.00
Diaphragms.....	.80	1.20	1.75	2.25	2.75	3.40	5.75	6.75
Case.....	.35	.40	.45	.50	.65	.75	1.25	1.50
Caps.....	.35	.40	.45	.50	.65	.75	1.25	1.50

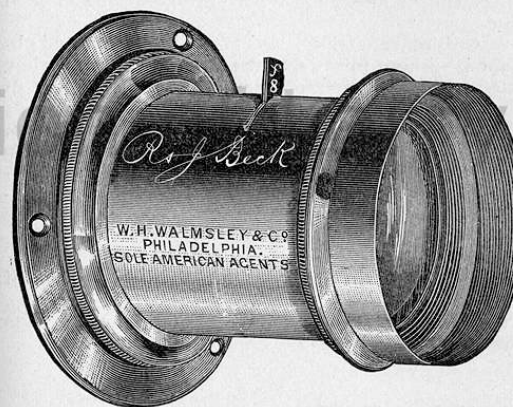
IMPORTED LENSES.

Beck Autograph Rectilinear Lenses.

None genuine without this engraved on the tube.

R. J. Beck.

These Lenses possess qualities entirely their own.



5 x 4. ACTUAL SIZE.

These Lenses are perfectly Aplanatic, covering with full aperture to the extreme corners the size plate for which they are designated in the list, and much larger sizes when moderately stopped down. They are very rapid in action rendering them particularly valuable for instantaneous and short-time exposures; are rigidly rectilinear and symmetrical; possess wonderful penetration and definition, and are the lightest

and most compact of any lenses in the market—a matter of no small moment to the landscape photographer. The No. 5 Lens will make life-size heads, sharp and free from distortion. They are in use in many of the leading galleries of the country.

No.	Size of Plate.	Diameter of Lenses.	Back Focus.	Equivalent Focus.	Angle.	Price.
1	3¼x4¼	⅞ in.	4½ in.	5 in.	75°	\$25 00
2	4¼x5½	1 in.	6 in.	6¾ in.	70°	30 00
3	5 x 8	1¼ in.	8 in.	8¾ in.	64°	35 00
4	6½x8½	1½ in.	10¼ in.	11 in.	67°	50 00
5	8 x 10	1¾ in.	12¼ in.	13 in.	66°	60 00
6	10 x 12	2 in.	14½ in.	16 in.	66°	75 00
7	11 x 14	2¼ in.	16¾ in.	18 in.	66°	100 00
8	14 x 17	3 in.	22 in.	24 in.	66°	160 00
9	20 x 22	3¾ in.	27½ in.	30 in.	66°	200 00

STEINHEIL LENSES.

QUALITY not quantity governs in determining the price of lenses. By an examination of the following price list, which supercedes all previous ones, it will be seen that Steinheil lenses are sold lower than any first-class lenses with which alone they may be compared. The introduction of Steinheil lenses marked an important advance in photographic optics.

HOW TO SELECT A STEINHEIL LENS.

In order to meet the various requirements, and to insure in each special case as perfect work as possible, we make lenses of different constructions.

Our lenses are divided into six *series*, presented in the order of their respective rapidities. Each series begins with No. 1 for the smallest size, and continues upwards. To avoid errors, it is therefore necessary in ordering to quote both the number of the series and the number of the lens in the present catalogue.

All our lenses are rectilinear and are strictly corrected for spherical errors and chemical focus.

They are free from disturbing reflections, and strongly illuminated objects can be taken with them without producing flare or light spots. They are, moreover, constructed so as to give the greatest possible equality of definition over the whole picture.

In focusing with these lenses, it is advisable to use the largest stop, even when it is intended to work with the smallest.

The scientific basis of our establishment and the precise methods employed both in the manufacture of our astronomical and photographic apparatus, enable us to produce lenses of such uniform accuracy, that the means of most vigorous testing at our command fail to reveal any differences in the instruments we send out.

We make it a special point never to supply a lens which is capable of improvement at our hands.

According to the principle involved in their construction, our lenses consist chiefly of two classes, viz.: *Antiplanatic* and *Aplanatic*.

Antiplanatic Lenses.

(U. S. Patent Nos. 241,437-'8.)

Briefly stated, these lenses which are the result of a series of calculations extending through several years, are composed of two non-symmetrical combinations each of as great but opposite faults as possible, which correct each other. One combination has a shorter focus than the objective as a whole, and the other has a negative focus. The combinations are placed very closely together.

By the peculiar construction, as described above, differing widely from the usual forms, it has been possible to correct to a considerable extent the hitherto greatest defect in photographic objectives, viz., "Astigmatism," and the consequent rapid decrease of definition from the center to the margin of the picture.

The result is greater sharpness and depth distributed more equally over a larger and strictly even picture, before any decrease in definition is perceptible.

Illumination, too, is more evenly distributed in consequence of lenses being proportionately nearer together.

These properties allow the lenses to be worked with full aperture or large stops, and gives them great rapidity of action.

The perfectly correct delineation produced by the antiplanets render them particularly suitable for enlargements as well as for dissolving view apparatus.

If small and sharp originals are taken, and subsequently enlarged, depths are obtained which would be unattainable in larger pictures taken *direct* with same amount of light. For this purpose, which will probably play an important part in photography, the antiplanets are specially suitable.

In making enlargements the front lens of the antiplanets should always be turned towards the enlarged picture, and the back lens towards the object to be enlarged.

This construction is designed for strictly even and correctly delineated pictures, and all tilting of the camera should be decidedly avoided and a movable lens board used instead.

The antiplanets are made in two series: The portrait antiplanets (Series I.) and the group antiplanets (Series II.), the latter being, however, also excellent dry plate portrait lenses.

Aplanatic Lenses.

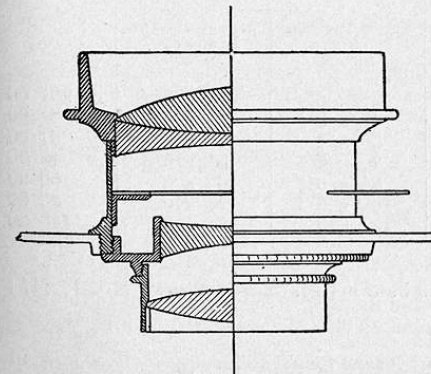
These lenses consist of the original and now well-known symmetrical and rectilinear combinations. They are made in four series, each of which is especially designed for a certain class of work. Their capabilities and object are fully explained below.

The lenses of Series V., also Series III., No. 1; Series IV., Nos. 1 and 2 have rotary diaphragms.

All the other lenses are furnished with Waterhouse diaphragms in morocco case.

STEINHEIL LENSES.

Series I.—Portrait Antiplanatics.

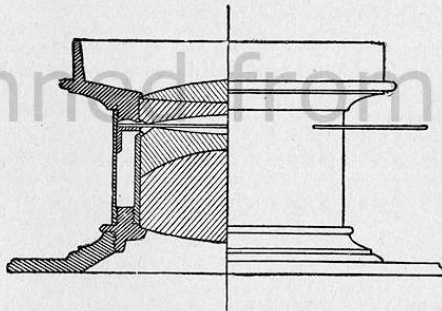


The rapidity is the same as in the usual Portrait Objectives, but there is more equality in the distribution of sharpness and illumination over the picture and greater depth. Contrary to the ordinary Portrait Objectives they produce perfectly correct delineation. Designed for *Portraits, Enlargements, and Dissolving View Apparatus.*

Series I.—Portrait Antiplanatics.

No.	Aperture, Inches.	Focal Length, Inches.	Plate, Inches.	Price.
1.....	$\frac{5}{8}$	2	Locket-Size.	\$25 00
1a.....	$1\frac{9}{16}$	$4\frac{1}{8}$	1-9 plate.	50 00
1b.....	$2\frac{1}{16}$	$7\frac{1}{16}$	1-6 plate.	75 00
2.....	3	$9\frac{1}{2}$	1-4 plate.	100 00
3.....	$3\frac{5}{8}$	$12\frac{5}{8}$	1-2 plate.	165 00
4.....	$5\frac{1}{4}$	$23\frac{5}{8}$	4-4 plate.	330 00

Special quotations for larger sizes.

Series II.—Patent Antiplanatic Group Lens.

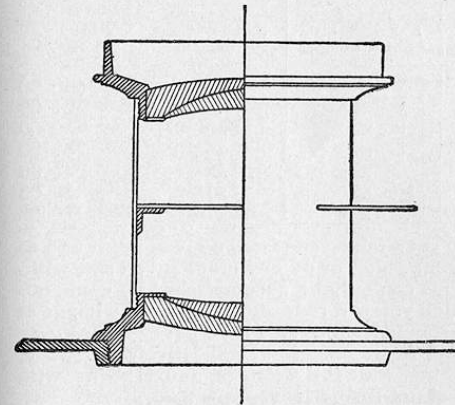
New in principle and construction, consisting of two non-symmetrical cemented pairs, placed so closely together, that there is only just room for the diaphragm. It is rectilinear, and is remarkable for its powerful and even illumination and depth of focus. In rapidity, it is only excelled by the regular and expensive portrait combinations.

Designed for *Portraits, Groups, Architecture, Landscape, Instantaneous Work and Enlargements.*

No.	Aperture, Inches.	Focal Length, Inches.	Size of Portraits or Groups, Inches.	Size of View or Landscape, Inches.	Price.
1.....	11-16	$3\frac{3}{4}$	$3\frac{1}{4} \times 3\frac{1}{4}$	$4\frac{1}{4} \times 3\frac{1}{4}$	\$21 00
2.....	1	$5\frac{5}{8}$	$4\frac{1}{4} \times 3\frac{1}{4}$	5 x 4	28 00
3.....	1 5-16	$7\frac{1}{4}$	5 x 4	7 x 5	37 00
4.....	1 11-16	$9\frac{1}{2}$	7 x 5	$8\frac{1}{2} \times 6\frac{1}{2}$	48 00
5.....	$1\frac{7}{8}$	$10\frac{7}{8}$	$8\frac{1}{2} \times 6\frac{1}{2}$	10 x 8	60 00
6.....	$2\frac{1}{2}$	$14\frac{1}{8}$	10 x 8	12 x 10	95 00
7.....	3 1-16	$17\frac{3}{4}$	12 x 10	15 x 12	140 00

Price for two identical combinations for Stereo Work, No. 1, \$44; No. 2, \$60; No. 3, \$77.

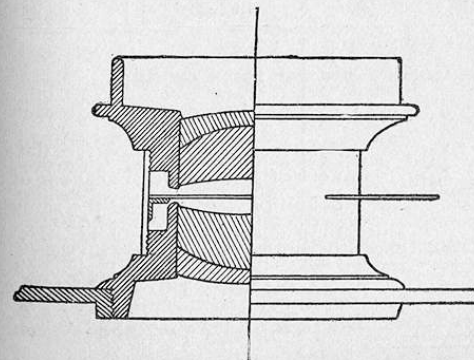
Detective camera lens of this series, focus about $4\frac{3}{4}$ inches, now in preparation.

Series III.—Aplanatic Lens.

The prototype of all rapid symmetrical and rectilinear lenses. Is now made with increased illumination and rapidity. Next to the Antiplanatic Group Lens, Series II., it is the best lens for general work. Designed for *Portraits, Groups, Architecture, Landscape and Instantaneous Work.*

No.	Aperture, Inches.	Focal Length, Inches.	Size of Portraits or Groups, Inches.	Size of View or Landscape, Inches.	Price.
1.....	$\frac{1}{4}$	$1\frac{5}{8}$	For enlarging,		\$ 18 00
2.....	$\frac{5}{8}$	$3\frac{3}{4}$	$3\frac{1}{4} \times 3\frac{1}{4}$	$4\frac{1}{4} \times 3\frac{1}{4}$	18 00
3.....	1	$5\frac{5}{8}$	$4\frac{1}{4} \times 3\frac{1}{4}$	$5\frac{1}{2} \times 4\frac{1}{4}$	25 00
4.....	$1\frac{1}{4}$	$7\frac{1}{2}$	$5\frac{1}{2} \times 4\frac{1}{4}$	7 x 5	32 00
5.....	1 11-16	11	$8\frac{1}{2} \times 6\frac{1}{2}$	10 x 8	44 00
6.....	2 1-16	$14\frac{1}{8}$	10 x 8	12 x 10	57 00
7.....	$2\frac{3}{8}$	$17\frac{3}{8}$	12 x 10	14 x 11	86 00
8.....	2 15-16	21 3-16	17 x 14	20 x 17	125 00
9.....	3 7-16	25	20 x 17	22 x 18	166 00
10.....	4 9-16	33	22 x 18	24 x 20	245 00

Price for two identical combinations for Stereo Work, No. 2, \$38; No. 3, \$52; No. 4, \$67.

Series IV.—Landscape Aplanats.

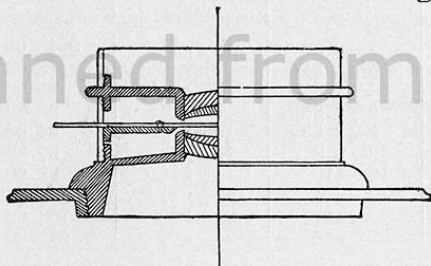
Angle about 75 deg., and covering a larger field than the lenses of Series III. Specially designed for *Landscape Work and Architecture*, but can also be advantageously used for *Copying.*

Series IV.—Landscape Aplanats.

No.	Aperture. Inches.	Focal Length. Inches.	Size of Full Aperture. Inches.	Picture, Smallest Stop. Inches.	Price.
1.....	3-16	2 $\frac{3}{8}$	2 x 1 $\frac{1}{2}$	3x2 $\frac{1}{2}$	\$18 00
2.....	3-8	3	2 $\frac{1}{2}$ x2	4x3	21 00
3.....	1 $\frac{1}{2}$	4 $\frac{3}{4}$	3 $\frac{3}{4}$ x3	6x5	26 00
4.....	3 $\frac{1}{4}$	6 $\frac{3}{8}$	5 x4	8x6	32 00
5.....	1	9 $\frac{1}{2}$	7 x5 $\frac{1}{2}$	11x8	44 00
6.....	1 $\frac{1}{2}$	15 $\frac{3}{8}$	10 x8	14x11	86 00
7.....	2 $\frac{1}{8}$	23 $\frac{5}{8}$	14 x11	20x16	160 00

It is frequently desirable to get a landscape from a given point and to get it just of the size to cover your plate, or of any other given size without changing your position. This can only be accomplished by using objectives of different foci, by which you can reduce or enlarge the image at will. For this work we have arranged a *Set of Four Landscape Aplanats*, fitting in the same flange, aperture 1 in., and foci respectively 9 $\frac{1}{2}$, 12 $\frac{5}{8}$, 15 $\frac{3}{4}$ and 19 ins., covering 7x5 $\frac{1}{2}$ ins. with full aperture, and 11x8 ins. with smallest stop. Price, in neat lock-up case, \$168.

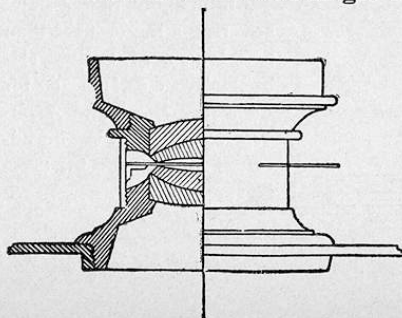
Sets of any number and class of aplanats made to order at proportionate prices.

Series V.—Wide-Angle Aplanat.

The proportionately short focus and large angle (about 100 deg.) of these lenses make them particularly adapted for *Interiors, Architecture*, and for very high, broad objects taken from short distances.

No.	Aperture. Inches.	Focal Length. Inches.	Size of Sharp Pictures. Inches.	Price.
.....	3-16	3 $\frac{3}{4}$	5 x5	\$26 00
.....	5-16	4 $\frac{3}{4}$	7 x7	30 00
.....	7-16	7 $\frac{1}{4}$	10 $\frac{1}{4}$ x10 $\frac{1}{4}$	42 00
.....	9-16	10 $\frac{3}{8}$	12 $\frac{1}{4}$ x12 $\frac{1}{4}$	61 00
.....	14-16	16	18 $\frac{1}{2}$ x18 $\frac{1}{2}$	93 00

Special quotations for larger sizes.

Series VI.—Wide-Angle Aplanat for Copying.

These lenses give perfect flatness of picture and sharpness of definition, and have at the same time a considerable field. Designed specially for *Copying Maps, Charts, Drawings, Paintings and Engravings and Photo-mechanical work generally*,

Series VI.—Wide-Angle Aplanat for Copying.

No.	Aperture. Inches.	Focal Length. Inches.	Size of Sharp Picture. Inches.	Price.
1.....	1	14 $\frac{3}{8}$	10 x 10	\$75 00
2.....	1 $\frac{1}{4}$	18	13 x 13	105 00
3.....	1 $\frac{3}{4}$	23 $\frac{5}{8}$	17 x 17	145 00
3b.....	2	30 $\frac{3}{4}$	20 x 20	210 00
4.....	2 $\frac{1}{2}$	38 $\frac{3}{8}$	24 x 24	320 00
5.....	3	48 $\frac{1}{4}$	28 x 28	540 00
6.....	3 $\frac{1}{2}$	56	34 x 34	760 00

Special quotations for larger sizes.

These lenses are rapidly gaining favor in the photo-mechanical establishments throughout the United States, whose operators pronounce them superior to all others for the special work for which they have been constructed.

As a result of our experience we beg to point out particularly the necessity of avoiding the slightest vibration during exposure, when it is desired to obtain the extremest sharpness of picture which these lenses are capable of producing. It is also advisable not to use too small a diaphragm as the diffraction caused thereby veils the picture.

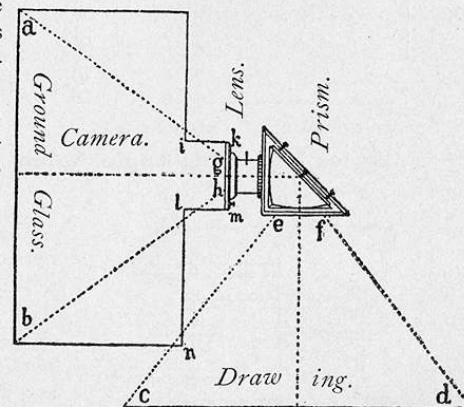
For obtaining inverted negatives, without stripping the film, we have designed the Prisms of Series VII, which can be fitted to the above or any other lenses.

Series VII.—Prisms.

These prisms are made of one solid homogenous mass of glass, with silvered hypotenuse.

They are centered in their mountings and adjustable to our lenses simply by unscrewing the hood of the lens and screwing the prism in its place.

With every prism is furnished a rotary flange with set screw, allowing the prism to be turned and fixed at any angle to the horizon. Designed for making *Inverted Negatives without stripping the film.*



Series VII.—Prisms.

No.	To work with Lenses as follows:	Price.
1	Ser. III. No. 2, Ser. IV. No. 3, Ser. IV. No. 4.....	\$37 00
2	Ser. V. No. 1, Ser. V. No. 2.....	41 00
3	Ser. IV. No. 5, Ser. V. No. 3, Ser. VI. No. 1.....	45 00
4	Ser. III. No. 3, Ser. VI. No. 2.....	57 00
5	Ser. II. No. 2, Ser. III. No. 4, Ser. V. No. 4.....	68 00
6	Ser. IV. No. 6, Ser. V. No. 5.....	80 00
7	Ser. II. No. 3, Ser. VI. No. 3.....	110 00
8	Ser. III. No. 5, Ser. VI. No. 3b, Ser. VI. No. 4.....	125 00
9	Ser. IV. No. 7.....	155 00
10	Ser. II. No. 4, Ser. III. No. 6, Ser. VI. No. 5.....	185 00
11	Ser. VI. No. 6.....	287 00
12	Ser. III. No. 7.....	493 00

No charge made for *fitting* the above Prisms to Steinheil Lenses. For fitting to other makes of lenses the labor will be charged for at cost.

Series VIII.—Aplanatic Focusing Lenses.

These are a combination of three lenses, so constructed that, at a considerable focal distance and large field, they produce an even, undistorted picture, achromatic both inside and outside of the axis.

No.	Focal Length.	Linear Magnifying Power.	Price.
1.....	$2\frac{3}{8}$ in.	.....about $3\frac{1}{2}$ times.....	\$12 00
2.....	$1\frac{5}{8}$ "	....." 5 ".....	10 00
3.....	1 "	....." 8 ".....	8 00

Ross Rapid Symmetrical Lenses,

FITTED WITH WATERHOUSE DIAPHRAGMS.

Size of View.	Size of Group.	Diameter.	Equiv. Focus.	Price.
4 x 5	$3\frac{1}{4} \times 4\frac{1}{4}$	1 inch.	6 inch.	\$34 00
$4\frac{1}{2} \times 7\frac{1}{2}$	4 x 5	$1\frac{1}{4}$ "	$7\frac{1}{2}$ "	42 00
5 x 8	$4\frac{1}{2} \times 7\frac{1}{2}$	$1\frac{3}{8}$ "	$8\frac{1}{2}$ "	46 00
$6\frac{1}{2} \times 8\frac{1}{2}$	5 x 8	$1\frac{1}{2}$ "	11 "	52 00
8 x 10	$6\frac{1}{2} \times 8\frac{1}{2}$	$1\frac{3}{4}$ "	13 "	68 00
10 x 12	8 x 10	2 "	16 "	84 00
11 x 13	9 x 11	$2\frac{1}{4}$ "	18 "	92 00
12 x 15	11 x 14	$2\frac{1}{2}$ "	20 "	116 00
16 x 18	12 x 15	3 "	24 "	148 00
18 x 22	16 x 18	$3\frac{1}{2}$ "	30 "	200 00
22 x 25	18 x 22	4 "	34 "	240 00

These lenses are free from "flare" and distortion, and give absolutely straight marginal lines, rendering them invaluable for all kinds of architectural subjects, dimly-lighted interiors, copying, and instantaneous work.

Ross Portable Symmetrical Lenses.

For landscapes, architecture or copying; giving wide or ordinary angles, according to the stop used. A great favorite with English amateurs. Unequaled for photographic work.

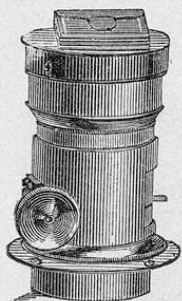
No.	Large Stop.	Med. Stop.	Small Stop.	Equiv. Focus.	Price.
a 3	4 x 5	$4\frac{1}{2} \times 7\frac{1}{2}$	5 x 8	5 inch.	\$28 00
a 4	$4\frac{1}{2} \times 7\frac{1}{2}$	5 x 8	$6\frac{1}{2} \times 8\frac{1}{2}$	6 "	32 00
5	5 x 8	$6\frac{1}{2} \times 8\frac{1}{2}$	7 x 9	7 "	40 00
6	$6\frac{1}{2} \times 8\frac{1}{2}$	7 x 9	8 x 10	8 "	48 00
7	7 x 9	8 x 10	10 x 12	9 "	56 00
8	8 x 10	10 x 12	11 x 14	10 "	64 00
9	10 x 12	11 x 14	12 x 15	12 "	72 00
10	11 x 14	12 x 15	16 x 18	15 "	80 00
11	12 x 15	16 x 18	18 x 22	18 "	96 00
12	16 x 18	20 x 22	21 x 25	21 "	120 00

Darlot Portrait Lenses.

RACK AND PINION, WITH CENTRAL STOPS.

- 1-4 size, 4½ inch focus.....\$8 75
- 1-2 " 7 "17 50
- 4-4 " for 8-10 plates, 10½ inch focus...35 50

The ¼ size we can furnish in matched pairs.



Darlot Quick Working Portrait Lenses.

RACK AND PINION, WITH CENTRAL STOPS.

- 1-2 size, 5½ inch focus.....\$22 00
- 4-4 " 8½ " 43 00



Darlot Hemispherical.

WIDE-ANGLE RECTILINEAR VIEW LENSES.

These Lenses embrace an angle of 90 degrees, and are valuable for taking views of buildings, interiors, etc., in confined situations, where those of longer focus cannot be used.

No.	Back Focus.	Size View.	Price.
No. 1,	2½ inches.....	For Stereoscopic Work, each.....	\$12 50
" 2,	3 "	" " " "	15 00
" 3,	5 "	8 x 10.....	20 00
" 4,	8 "	10 x 12.....	25 00
" 5,	12 "	14 x 17.....	35 00

Darlot Rapid Hemispherical View Lenses.

These Lenses embrace an angle of from 60 to 75 degrees; are quick-acting, perfectly rectilinear, and provided with central stops. Will be found very fine lenses for landscapes and outdoor groups; also for copying engravings, maps, architectural subjects, etc.

No.	Back Focus.	Size View.	Price.
No. 1,	5½ inches.....	5 x 6.....	\$15 00
" 2,	9 "	5 x 8.....	25 00
" 3,	10½ "	8 x 10.....	35 00
" 4,	14 "	10 x 14.....	50 00

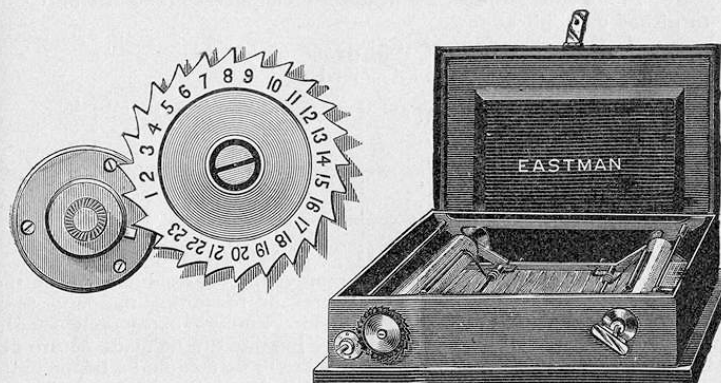
No. 1 can be had in matched pairs for Stereoscopic work.

Darlot Gem Lenses.

PLAIN.

- 1-9 size, each.....\$2 50
- 1-4 " " 3 75

Eastman-Walker Roll Holders.



Patented May 5, 1885. Label Registered, 1885.

No Roll-Holder is complete without this tally to record the number of exposures made.

Fitting Roll Holders.

We can fit Roll Holders to the standard Cameras. An extra charge is made for this in all cases except when the holder is sold with the camera. In ordering roll holders for old cameras it is advisable to send the camera or one of the double holders to the factory to serve as a pattern. Where this is impracticable on account of distance or otherwise, give full particulars as to make and name of camera and outside dimensions.

Each Roll-Holder has the non-detachable key and Scovill patent automatic tally.

‡3¼ x 4¼.....\$12 00	5 x 8...\$20 00	16 x 20 ....\$60 00
‡4 x 5 ... 15 00	6½ x 8½ 24 00	17 x 20 65 00
‡4¾ x 6½..... 17 50	8 x 10... 30 00	18 x 22 75 00
*4½ x 7½... 20 00	10 x 12... 36 00	20 x 24 80 00
5 x 7 20 00	11 x 14... 42 00	25 x 30 85 00
‡5 x 7½..... 20 00	14 x 17... 50 00	

Price of Automatic Tally, \$3.00 extra.

* This size is made for 5 x 8 Cameras that are too small for our regular 5 x 8 holder, viz.: Scovill's '76, and Waterbury. † English sizes. ‡ Visible indicator only.

All sizes of Roll Holders up to and including 11 x 14 carried in stock. Larger sizes to order.

Roll holders on Scovill Detective Cameras and all roll holders sent out from the American Optical Co., with or without cameras, have the American Optical Co. Automatic Tally fitted to them.

Roll Holders.—EXTRA PARTS.

All parts of Roll Holders are made interchangeable, and any part can be furnished on application.

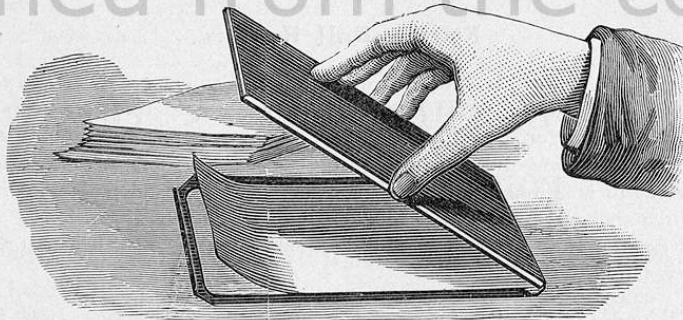
Extra Keys, old model.....25 cts each.

EXTRA REELS.

3¼ inches.....50 cts.	11 inches.....\$1 00
4 "50 "	14 " 1 00
4½ "50 "	16 " 1 25
4¾ "50 "	17 " 1 25
5 "50 "	18 " 1 25
6½ "75 "	20 " 1 50
8 "75 "	25 " 2 00
10 "75 "	

Extra Reels enable the operator to remove the exposed paper from the roll holder without separating the exposures or rewinding the paper film, an operation that should always be avoided. Enough extra reels should be provided to carry all exposures that are intended to be made before developing. For instance, if 100 exposures are to be made on a trip, 3 extra reels are required. Each reel, as soon as full, is removed from the holder and replaced by another to take the paper from a fresh spool. The boxes in which the spools are sold serve to store the reels of exposed paper. Empty spools are thrown away.

Film Carriers.



Patented May 5, 1885.

	$\frac{3}{8}$ in. thick.	$\frac{1}{8}$ in. thick.	$\frac{3}{16}$ in. thick.		$\frac{3}{8}$ in. thick.	$\frac{1}{8}$ in. thick.	$\frac{3}{16}$ in. thick.	$\frac{1}{4}$ in. thick.
3¼ x 4¼ ..	\$0 25	\$0 25	—	8 x 10 ..	\$0 50	\$0 50	\$0 50	—
4 x 5 ..	30	30	—	10 x 12 ..	—	—	60	—
4¾ x 6½ ..	30	—	—	11 x 14 ..	—	—	75	—
5 x 7 ..	35	—	35	14 x 17 ..	—	—	1 00	—
5 x 7½ ..	35	—	—	16 x 20 ..	—	—	—	\$1 25
5 x 8 ..	35	35	35	18 x 22 ..	—	—	—	1 50
6½ x 8½ ..	40	40	40	20 x 24 ..	—	—	—	1 75

Sizes not mentioned are not made and cannot be furnished.

In ordering carriers specify which thickness is wanted. The thicker the carrier the more rigid.

Double Holders that have the plate slide in from the end require the thinnest carrier, ($\frac{3}{16}$).

The Daisy Holder will take the $\frac{1}{8}$ inch carriers when the septum is removed. As the carriers are opaque, the septum is not required.

Wet Plate Holders require the $\frac{3}{16}$ carriers.

ACCESSORIES

—FOR—

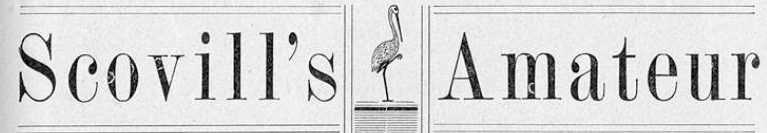


Photo. Outfits.

PRICE LIST

—OF—

Photograph Cards

FOR MOUNTING VIEWS.

Plain Cards, White or Gray.

Per Package of 25.

No. 2.	9 x 11.....	\$0 45
" 2.	6½ x 8½	30

Plain Cards, with Square Gilt Line.

Per Package of 25.

No. 2.	10 x 12, White or Gray, 6 x 8 Opening.....	\$1 00
" 2.	9 x 11, " " 5 x 8 "	80
" 2.	6½ x 8½, " " 4 x 5 "	60

Thin Gold Beveled Edge Cards.

WITH CLEAN CUT EDGES—PURE NON-TARNISHABLE GOLD LEAF.

No. 26, Black, Chocolate, Olive, Dark Olive or Brown,
Enameled both sides.

No. 67, Maroon Face, Gray Backs.

Per Package of 25.

Cabinet size, Round Corners, $4\frac{1}{4} \times 6\frac{1}{2}$	\$0	52
Boudoir " " $5\frac{1}{4} \times 8\frac{1}{2}$		85
$4\frac{1}{4} \times 5\frac{1}{4}$ " ".....		50
5 x 8 " ".....		85
$3\frac{1}{2} \times 4\frac{1}{2}$ " ".....		40

No. 26, White, Primrose, Pearl, Gray or Rose.

Per Package of 25.

Cabinet size, Round Corners, $4\frac{1}{4} \times 6\frac{1}{2}$	\$0	52
Boudoir " " $5\frac{1}{4} \times 8\frac{1}{2}$		85
$4\frac{1}{4} \times 5\frac{1}{4}$ " ".....		50
5 x 8 " ".....		85

Boudoir and Thin Panel Cards.

No. 9, White, Primrose, Pearl, Gray, Rose, Plain Cards
Round Corners.

Per Package of 25.

Boudoir (or 5 x 8), $5\frac{1}{4} \times 8\frac{1}{2}$	\$0	55
Cabinet Panel, 4 x $8\frac{1}{4}$		33
4 x 5 or $4\frac{1}{4} \times 5\frac{1}{4}$		30

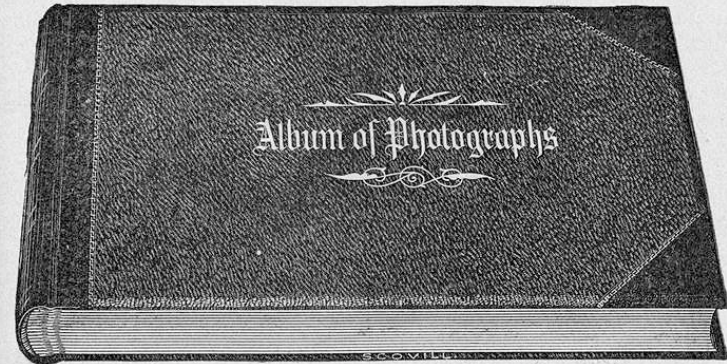
No. 9, Black, Chocolate or Maroon Face, Gray Backs,
Plain Cards, Round Corners.

Per Package of 25.

Boudoir (or 5 x 8), $5\frac{1}{4} \times 8\frac{1}{2}$	\$0	55
Cabinet Panel, 4 x $8\frac{1}{4}$		45
4 x 5 or $4\frac{1}{4} \times 5\frac{1}{4}$		30

Scovill's Albums FOR Photographs.

(NEW STYLE.)



How often the Amateur Photographer is heard to remark, that as fast as he makes prints from a negative his friends get away with them, and none are left to be treasured up as evidences of his advancement in the art. In order to keep at least one picture from each negative, and to arrange the collection in the best manner for display and preservation, tasteful albums have been introduced by the Scovill Manufacturing Co.

Each Album has 48 pages, 24 leaves. In them the finest card-board only is used, chemically free from anything that could injure a print.

PRICES:

For Photo. (size)....	4x5	5x8	$6\frac{1}{2} \times 8\frac{1}{2}$	8x10	11x14
Size of Card.....	6x7	7x10	10x12	11x14	14x17
Plain.....	\$1.15	1.40	2.00	2.25	4.50
With Prepared Surface...	1.35	1.75	2.75	3.00	
With Gilt Lines.....	1.65	1.90	2.50	2.75	

Scovill's Recherché View Albums,

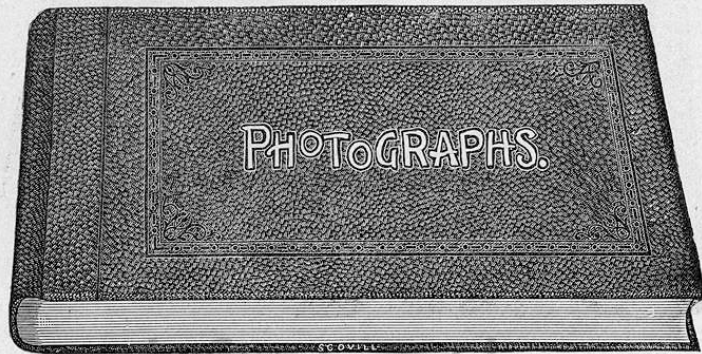
WITH ADHESIVE SURFACE.

PREPARED FOR MOUNTING PRINTS.

	6x7	7x10	10x12	11x14
Each.....	\$1.35	1.75	2.75	3.00

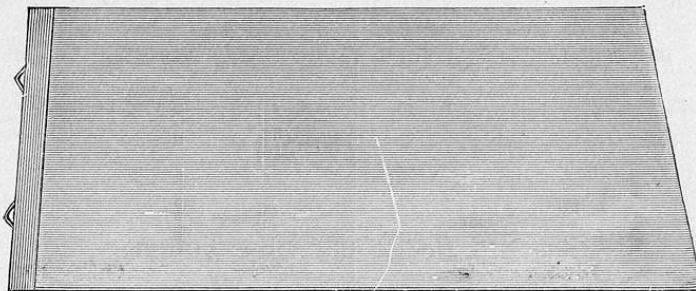
HOWARD ALBUMS, FOR PHOTOGRAPHS.

THE Howard Album, with interchangeable cards, is the latest novelty in the way of an album for mounting photographs. In handsomely embossed covers, are bound 24 of Collins' cards, which are chemically pure from all matter that would injure the photographs. In the mode of binding, and their interchangeable feature, lies the difference between this and other albums.



To each card are attached two small metallic binding loops, so fastened that they act like hinges; through the projection of these loops a binding cord passes, which fastens at the back; thus each card is bound in the cover independently, and may be taken out and returned or replaced with ease. This method of making an album affords the amateur the best means of preserving the results of his labor, because each picture may be finished before putting the card in the album. The arrangement of the pictures may also be altered at will—if a single card is spoiled the whole album is not ruined. If a picture is taken out, it can be quickly and readily done without injury to the volume.

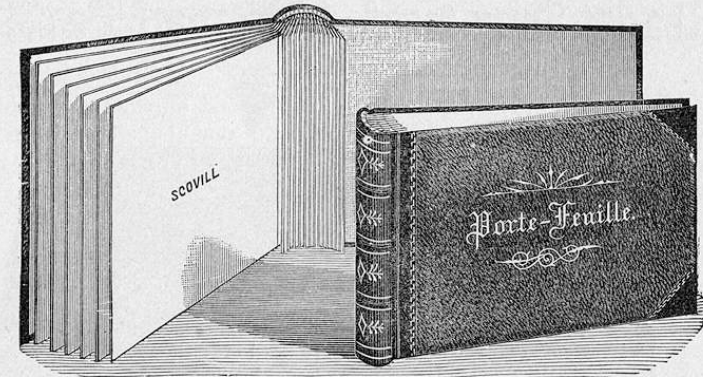
These albums are also eminently suited for mounting foreign views, on account of the cards not working like ordinary scrap books the album opening perfectly flat, and having the admirable interchangeable feature.



SIZES AND PRICES,

No. 1, 6x7 Cards, for 4x5 Photographs	\$1.10	No. 3, 10x12 Cards, for 6½x8½ Photographs	\$1.90
No. 2, 7x10 " " 5x8 " "	1.35	No. 4, 11x14 " " 8 x10 " "	2.35
No. 2½, 8x10 " " 6½x8½ " "	2.00		
EXTRA CARDS (Collins' Best) for Howard Albums, Mounted with Loops, Ready for Use.			
6x7, Package of one dozen.	-\$0.38	8x12, Package of one dozen,	-\$0.62
7x10, " " " "	-.50	11x14, " " " "	-.88

The Scovill Porte-Feuille



Is a device for the preservation, in convenient form, of cards upon which photographic prints have been mounted.

A series of muslin holders, bound between covers with patent flexible backs, constitute a book having great strength of binding combined with a flexibility that allows the book to be opened flat without strain. Prints can thus be put into book form, readily and securely, after they have been mounted and also (when desired) burnished. The insertion of the cards is very simple, as will be seen by the directions which follow: To the inner faces of one of the holders apply enough paste to attach the card securely; not so much as will smear the exposed face of the card; then insert the card and rub down on both sides; allow the paste to dry before putting in another card.

Do not put the Paste on the Card.

PRICE LIST OF PORTE-FEUILLE,

Including Twenty-five Sheets of Collins' Best Quality White Cards.

No. 1. Outside dimensions, 7 x 10 for 5 x 8 Photographs.	.....	\$1 45
" 2. " " 10 x 12 for 6½ x 8½ " "	.....	2 00
" 3. " " 11 x 14 for 8 x 10 " "	.....	2 40

Price List of Porte-Feuille, including 25 Sheets of Collins' White Muslin-Back Cards.

No. 4. Outside dimensions, 7 x 10 for 5 x 8 Photographs.	.....	\$1 30
" 5, " " 10 x 12 for 6½ x 8½ " "	.....	1 90
" 6, " " 11 x 14 for 8 x 10 " "	.....	2 30

Price List of Cards per package of 25, not including Porte-Feuille.

COLLINS' BEST WHITE CARDS.

7 x 10.....	\$0 45	10 x 12.....	\$0 70
11 x 14.....	\$0 88.		

COLLINS' WHITE MUSLIN-BACK CARDS.

7 x 10.....	\$0 30	10 x 12.....	\$0 60
11 x 14.....	\$0 80.		

Collins' White Muslin-Back Cards, in Rolls, 22 inches wide, 14 cts. per yard.

SCOVILL'S Ready Sensitized Albumen Paper.

This Paper was expressly manufactured for and introduced by us to give to those who have not the skill, time, inclination or appliances to sensitize photographic paper preparatory to printing, an article of the finest quality and of uniform sensitiveness.

PRICE LIST.

Size.	Per Package.
4x 5 inches, in light-tight packages, 2 dozen.....	\$0 40
5x 8 " " " " 2 "	75
18x22 " " " " 1 "	per doz. 3 00

To save loss, rolls are not broken.

TIN CASES to hold one dozen 18x22 Sensitized Paper, 30 cents each,
three " " " " " " " " " " 50

S. P. C.

FERRO-PRUSSIAN PAPER.

For Making Blue and White Pictures.

Our brand **S. P. C.** is a sure index of superiority in texture, the paper is better wrapped than any other, and is noticeably free from spots, streaks or flaws.

This paper is extremely simple in its manipulation, and therefore very convenient for making proofs from negatives. It is also adapted for the reproduction of *Mottos, Plans, Drawings, Manuscript, Circulars*, and to show representations of Scenery, Boats, Machinery, &c., for an engraver to copy from. The rapidity with which a print can be made with this paper is for numerous purposes, and to men in some occupations, a very great recommendation in its favor.

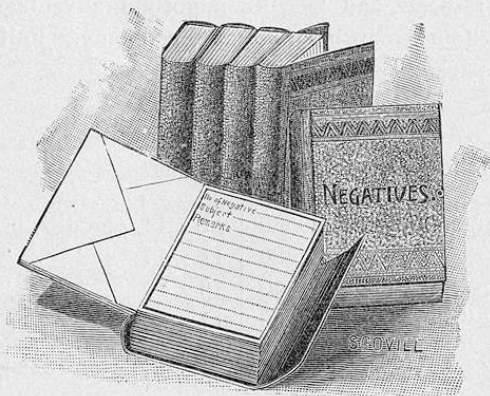
PRICE LIST.

Size.	Per Package.
4 x 5 inches, in 2 dozen light-tight parcels.....	\$0 28
5 x 8 " " 2 " "	50
6½x 8½ " " 2 " "	67
8 x10 " " 2 " "	83

To save loss, parcels are not broken.

In full rolls of 11 yards each, 29 inches wide, \$3.50 per roll.

THE HOWARD Negative Preserver and Binder.



These convenient Binders consist of heavy, finely surfaced envelopes (Negative Preservers), secured in cloth covers, and printed for reference, as shown in cut, and is designed for the preservation and classification of either paper or glass negatives, or mounted or unmounted photographs.

The HOWARD BINDERS occupy much less space than negative boxes. By means of the patent adjustable back, the file enlarges as the envelopes are filled.

The Binders are now all made with front flap and tie.

No. 1, for 4¼x5½, 4x5, and 3¼x4¼ negatives or prints.....	\$0 50
No. 2, for 5x8, 5x7, 4¼x6½ negatives or prints.....	60
No. 3, for 6½x8½ negatives or prints.....	75
No. 4 for 8x10 negatives or prints.....	1 00

EASTMAN'S NEGATIVE PAPER.

This Negative Paper is adapted for landscape and interior work and for large portraits. For these purposes it is equal to glass in all respects, and has the important advantages of portability, freedom from halation, and economy. Full directions with every package.

CUT SHEETS.

3 $\frac{1}{4}$ x 4 $\frac{1}{4}$, two doz. in box, \$0 65	11 x 14, one doz. in box, \$3 50
4 x 5 " " 90	14 x 17 " " 5 50
4 $\frac{3}{4}$ x 6 $\frac{1}{2}$ " " 1 40	16 x 20 " " 7 25
5 x 7 " " 1 55	17 x 20 " " 7 75
5 x 7 $\frac{1}{2}$ " " 1 65	18 x 22 " " 9 00
5 x 8 " " 1 75	20 x 24 " " 12 00
6 $\frac{1}{2}$ x 8 $\frac{1}{2}$ " " 2 45	24 x 36 " " 20 00
8 x 10 " " 3 50	30 x 40 " " 27 50
10 x 12, one doz. in box, 2 60	

ON SPOOLS, TO FIT ROLL HOLDERS.

3 $\frac{1}{4}$ in. for two dozen 3 $\frac{1}{4}$ x 4 $\frac{1}{4}$ exposures.....	\$0 75
4 in. " " 4 x 5 "	1 00
4 $\frac{1}{2}$ in. " " 4 $\frac{1}{2}$ x 7 $\frac{1}{2}$ "	1 80
4 $\frac{3}{4}$ in. " " 4 $\frac{3}{4}$ x 6 $\frac{1}{2}$ "	1 55
5 in. " " 5 x 8 "	2 00
6 $\frac{1}{2}$ in. " " 6 $\frac{1}{2}$ x 8 $\frac{1}{2}$ "	2 70
8 in. " " 8 x 10 "	4 00
10 in. " " 10 x 12 "	6 00
11 in. " " 11 x 14 "	8 00
14 in. for one doz. 14 x 17 "	6 00
16 in. " " 16 x 20 "	8 00
17 in. " " 17 x 20 "	8 50
18 in. " " 18 x 22 "	10 00
20 in. " " 20 x 24 "	13 25
25 in. " " 25 x 30 "	20 00

Spools wound with 3 or 4 dozen, if required.

AMERICAN FILMS.

Patented May 5, 1885.

The American Film consists of a film of *insoluble* sensitive gelatine emulsion attached to a paper support by means of a layer of *soluble* plain gelatine. The paper serves as a temporary support during the operations of exposure, developing, fixing and washing. After which the film is laid down on a prepared sheet of glass, the paper is removed by warm water which dissolves the soluble gelatine layer and leaves the film on the glass; the paper is then replaced by a varnish of thick gelatine and glycerine, dried, and the whole stripped from the glass ready for printing. Full details of the operations outlined are given in the printed directions enclosed in every package. We recommend these Films for use where a perfectly transparent negative is required, as in enlarging.

PRICES OF AMERICAN FILMS.

CUT SHEETS.

Size.	Per Package.
3 $\frac{1}{4}$ x 4 $\frac{1}{4}$, two dozen in package	\$0 70
4 x 5 " "	1 00
4 $\frac{3}{4}$ x 6 $\frac{1}{2}$ " "	1 50
5 x 7 " "	1 75
5 x 7 $\frac{1}{2}$ " "	1 90
5 x 8 " "	2 00
6 $\frac{1}{2}$ x 8 $\frac{1}{2}$ " "	2 80
8 x 10 " "	4 00
10 x 12, one dozen "	3 00
11 x 14 " "	4 00

FILMS ON SPOOLS, TO FIT THE EASTMAN-WALKER ROLL HOLDERS.

Size.	Price.
3 $\frac{1}{4}$ inch, for 24 exposures 3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	\$0 85
4 " " " 4 x 5	1 10
4 $\frac{1}{2}$ " " " 4 $\frac{1}{2}$ x 7 $\frac{1}{2}$	2 00
4 $\frac{3}{4}$ " " " 4 $\frac{3}{4}$ x 6 $\frac{1}{2}$	1 75
5 " " " 5 x 8	2 20
6 $\frac{1}{2}$ " " " 6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	3 00
8 " " " 8 x 10	4 50
10 " " " 10 x 12	6 75
11 " " " 11 x 14	9 00

Other sizes in proportion.

EASTMAN'S PERMANENT BROMIDE PAPER

MADE IN THREE VARIETIES.

A—Smooth surface, thin, for positive printing, copying drawings, etc., by contact.

B—Smooth surface, heavy, for enlargements and working in ink, oil and water colors.

C—Rough surface, heavy, for enlargements, plain, and for working in crayon, ink, water colors and oil.

All one price.

Our paper is uniformly and heavily coated by machinery with silver bromide, mixed with the least possible quantity of gelatine, to avoid curling, and to preserve the tooth of the paper for working with crayons.

We recommend the rough paper for plain enlargements and contact prints of all kinds on account of the fine artistic effects to be obtained.

Every batch of Bromide Paper is critically tested in our Enlarging Department. Absolute uniformity guaranteed.

Parties who have tried other makes of Bromide Paper and failed to obtain satisfactory results, are solicited to give this paper a trial.

A, B or C.—Cut Sheets.

Size.	Per Doz.	Size.	Per Doz.
$3\frac{1}{4} \times 4\frac{1}{4}$	\$0 25	11 x 14.....	\$3 00
4 x 5.....	40	12 x 15.....	3 35
$4\frac{1}{2} \times 5\frac{1}{2}$	50	14 x 17.....	4 50
$4\frac{1}{4} \times 6\frac{1}{2}$	55	16 x 20.....	6 00
$4\frac{3}{4} \times 6\frac{1}{2}$	60	17 x 20.....	6 40
5 x 7.....	65	18 x 22.....	7 50
5 x $7\frac{1}{2}$	70	20 x 24.....	9 00
5 x 8.....	75	22 x 27.....	11 25
$6\frac{1}{2} \times 8\frac{1}{2}$	1 10	24 x 30.....	13 50
8 x 10.....	1 50	25 x 30.....	14 00
10 x 12.....	2 25	24 x 36.....	16 00
10 x 14.....	2 65	30 x 40.....	22 50

Other sizes in proportion.

ON SPOOLS.

Patented May 5, 1885.

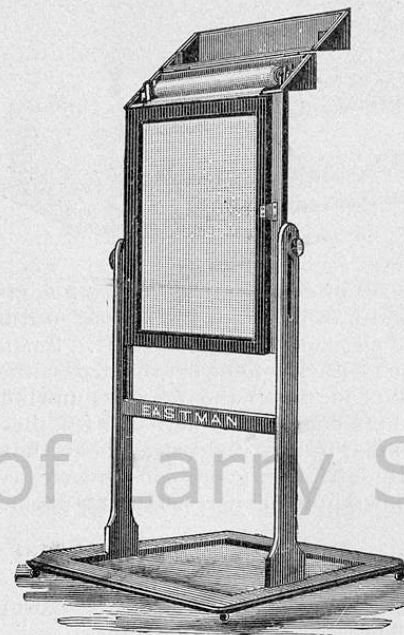
Per Yard.	Per Yard.
10 inches wide.....\$0 56	20 inches wide.... \$1 12
11 "..... 62	22 "..... 1 24
12 "..... 68	24 "..... 1 35
14 "..... 79	25 "..... 1 40
16 "..... 90	30 "..... 1 68
18 "..... 1 00	31 "..... 1 74

Not less than 10 yards on a spool.

If ordered in packages of less than one dozen, an extra charge of 25 cents will be made for packing.

ENLARGING EASELS.

WITH SPOOL HOLDER.



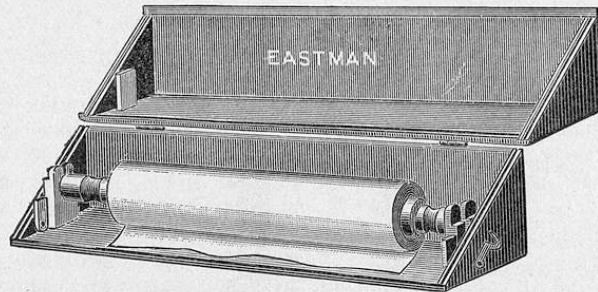
Patented May 5, 1885. Other Patents applied for.

Price Complete.

No. 1—For Spools up to and including 11 inches.....	\$7 50
" 2 " " " 16 ".....	10 00
" 3 " " " 22 ".....	12 50
" 4 " " " 25 ".....	15 00

The above apparatus is for use with either natural or artificial light enlarging cameras or with the magic lantern and consists of an easel made to stand upon the floor and a Spool Holder fixture, which holds the roll of Permanent Bromide Paper. For use the paper is drawn down like a curtain and fastened on the face of the easel by a hinged frame, which, when in place, serves as a guide for registering the image correctly. After exposure, each length is cut off and a fresh piece pulled down. When not in use the Spool of paper is enclosed light-tight in the holder. Each easel is accompanied by one spool holder. If it is desired to use several widths of paper on the easel, extra spool holders (which are interchangeable) are employed.

Extra Spool Holders.



One Spool Holder accompanies each easel; where it is desired to make several sizes of enlargements, extra holders may be employed for each width of paper, or for several widths, as desired. These holders are all made interchangeable. Small sizes will fit on the large easels. Each holder is provided with a brake that bears on the back of the paper and prevents unwinding.

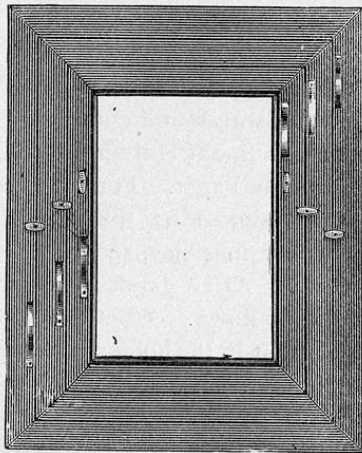
The spools of Permanent Bromide Paper for these holders are put up for the market in light-tight straw-board boxes.

Extra Spool Holders are a great convenience, as they obviate the necessity of unwrapping and re-wrapping paper.

PRICES OF EXTRA SPOOL HOLDERS.

No.	Price.
No. 1 will take spools for paper up to 11 inches wide.....	\$2 00
" 2 " " " " 16 " "	2 50
" 3 " " " " 22 " "	3 00
" 4 " " " " 25 " "	4 00

Kits for Enlarging Easels.



Outside.	Inside.	Price.
25x30.....	22x27.....	\$1 50
22x27.....	20x24.....	1 40
20x24.....	18x22.....	1 30
18x22.....	16x20.....	1 20
16x20.....	14x17.....	1 00
14x17.....	11x14.....	80
11x14.....	10x12.....	66
10x12.....	8x10.....	60

These Kits are made to nest one into the other, and they are provided with buttons for fastening in place; also spring clips for holding Eastman's Film Carriers for cut sheets.

OUTFIT FOR COPYING DRAWINGS.

WITH EASTMAN'S "A" BROMIDE PAPER.

	5½	4	5	6½	8	10	11	10	14	20
	x	x	x	x	x	x	x	x	x	x
	4½	5	8	8½	10	12	14	15	17	24
1 Printing Frame.....	55	55	70	70	85	1 15	2.60	3.30	3.60	6.40
1 Glass for Frame.....	10	10	15	20	20	25	25	25	50	1.00
6 Sheets yellow paper..	15	15	15	15	15	15	15	15	15	15
2 Japanned Trays.....	40	40	50	70	80	1.00	1.20	1.20	2.00	5.00
1 Grass Graduate.....	50	50	50	50	50	50	50	50	50	50
1 Minim Glass.....	25	25	25	25	25	25	25	25	25	25
1 lb. Oxalate Potash....	40	40	40	40	40	40	40	40	40	40
1 lb. Proto Sulp. Iron,										
chem., pure.....	50	50	50	50	50	50	50	50	50	50
1 lb. Hypo Sulph. Soda..	10	10	10	10	10	10	10	10	10	10
¼ lb. Citric Acid.....	25	25	25	25	25	25	25	25	25	25
1 oz. Bromide Potass....	25	25	25	25	25	25	25	25	25	25
1 doz. Per. Bro. Paper,										
"A" or "B,".....	25	40	75	1.10	1.50	2.25	3.00	2.85	4.50	9.00

Price Boxed.....\$3.70 3.85 4.50 5.00 5.75 7.05 9.45 10.00 13.00 23.80

The above list comprises everything necessary to make copies of drawings with our Permanent Bromide Paper.

An ordinary Patent Office drawing on thick Bristol board, may be copied in five seconds in ordinary light. No previous knowledge of Photography required. Full instructions with each outfit.

HARD RUBBER PLATES.

FOR DRYING PAPER NEGATIVES.

1/16 in. thick.		1/8 in. thick.	
4 x 5.....	10 cents each.	8 x 10.....	40 cents each.
5 x 7.....	18 "	10 x 12.....	60 "
5 x 8.....	20 "	11 x 14.....	75 "
6½ x 8½.....	30 "		

One Negative can be squeegeed upon each side of the rubber plate, which can then be placed in an ordinary plate rack to dry.

TRANSLUCINE.

A new material for rendering paper negatives translucent, without the aid of heat. Put up in corked bottles. Inodorous, and has simply to be rubbed onto the back of the negative and wiped off with a cloth. Price, 35 cents per bottle.

OUTFIT FOR DEVELOPING NEGATIVE PAPER

AND EASTMAN'S FILMS, AND MAKING POSITIVES ON EASTMAN'S PERMANENT BROMIDE PAPER.

Including all apparatus and material necessary to make finished photographs, except the Camera, Roll Holder, Lens, Tripod, Focusing Cloth and supply of Negative and Bromide Paper.

	4 x 5	5 x 8	6½ x 8½	8 x 10
1 Ruby Lamp.....	\$2 00	\$2 00	\$2 00	\$2 00
2 Glossy Rubber trays.....	54	1 20	1 60	2 60
1 Agate Pan.....	1 00	1 25	1 25	1 60
1 Graduate.....	35	35	35	50
1 Minim Glass.....	25	25	25	25
1 Bottle Developer.....	50	50	50	50
1 Oz. Bromide Potassium..	25	25	25	25
1 Lb. Hyposulphite Soda...	10	10	10	10
1 " Alum.....	10	10	10	10
1 " Proto Sulph. Iron....	10	10	10	10
1 " Oxalate Potash.....	40	40	40	40
1 Package French Chalk....	10	10	10	10
2 Oz. Sulphuric Acid.....	25	25	25	25
1 Bottle Rubber for Films..	25	25	25	25
1 " Gel. Varnish " ..	25	25	25	25
1 Sheet Hard Rubber.....	10	20	30	40
1 Squeegee.....	40	40	50	50
1 Bottle Translucine.....	35	35	35	35
1 Flat Printing Frame.....	55	70	70	85
1 Paste Brush.....	5	5	5	5
1 Pot Paste.....	25	25	25	25
1 Dozen Mounts.....	25	30	40	50
	<u>\$8 29</u>	<u>\$9 50</u>	<u>\$10 30</u>	<u>\$12 05</u>

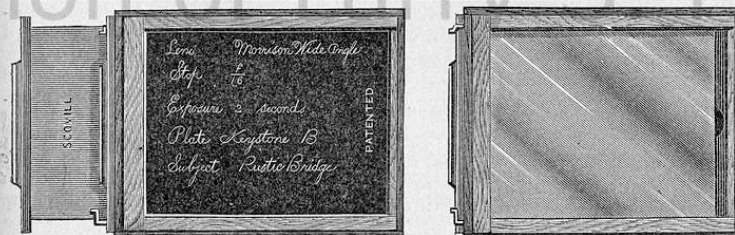
Price complete, boxed.....\$7 50 \$8 70 \$9 30 \$11 00

SQUEEGEES.

VELVET RUBBER.

6 inch.....40 cents. | 8 inch.....50 cents.
12 inch.....75 cents.

Squeegees are used to scrape off the water from the paper negative when laid on the rubber plates to dry.

THE SCOVILL**LIGHT-WEIGHT**

SHOWING
PATENT REGISTERING SLIDE.

WITH FRONT SLIDE
TAKEN OUT.

Substantial, serviceable and accurate double holders cannot be made smaller or lighter than the Scovill Light-weight Holders, and though so thin kits may be used in them. The Light-weight Holders yield a negative the full width of the plate, and, what is equally important, the plate may be placed in these holders or removed therefrom without touching the sensitive surface and without danger of breaking it. Observe the means shown in illustration for locking the slides. The Light-weight Holders are made with solid frame so that they will not come apart, leak light, or warp. Every holder has the patent Registering Slides described on the opposite page. Skilled photographers do not consider any holder complete without them. If you want to secure accurate focusing use the Light-weight, or any of the other Scovill Plate Holders. (PATENT APPLIED FOR.)

PRICE LIGHT-WEIGHT DOUBLE HOLDER.

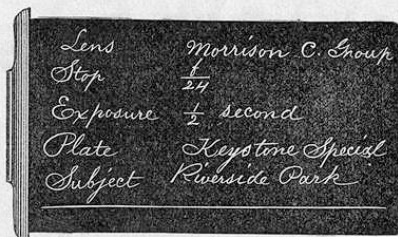
3¼x4¼.....	\$ 90	5 x7.....	\$1 30
4 x5.....	1 00	5½x7.....	1 40
4¼x5½.....	1 10	5 x8.....	1 40
4¼x6½.....	1 25	6½x8½.....	1 70
4¾x6½.....	1 30	8 x10.....	2 00

SCOVILL MANUFACTURING CO.

For Sale by all Dealers.

REGISTERING SLIDES.

(PATENTED.)



In the pleasure or excitement attendant upon picture-taking, holders have been so changed about that the note-book afforded no clue to their identity. All photographers, whether professional or amateur, who have in time past puzzled their brains in the endeavor to solve such vexatious questions as these—

“Have I or have I not exposed that plate?”

“If exposed, was the plate used for that prized picture?”

“Shall I incur the risk of making a double exposure?”

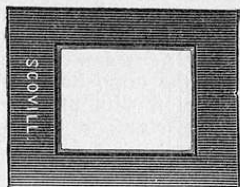
henceforth will have themselves only to find fault with if they do not procure and use in their dry-plate holders registering slides, or as they have been called “Record Slides.” These can be written upon with slate or lead pencil *ad libitum*, and the writing erased without injury to them. Before taking a picture the mottled surface of these slides is seen; afterward they are turned, so that the blackboard surface, which was toward the sensitive plate, is out, and the data respecting the exposures are penciled thereon—a very convenient place, by the way, to consult it when developing the plates.

Registering Slides supplied with new American Optical Co.'s Dry Plate Cameras and Amateur Outfits up to 10x12 size without addition to present price list. Additional Holder Slides of this kind supplied at the following prices:

PRICE REGISTERING SLIDES.

Size for	Each.	Size for	Each.
3½ x 4½	\$0 18	5 x 7	\$0 35
4 x 5	20	5 x 8	40
4½ x 5½	24	6½ x 8½	55
4½ x 6½	28	8 x 10	75

Registering Slides not made above 8x10 size.



Rabet Kit Frames

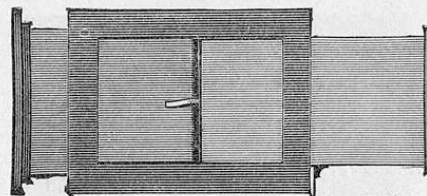
FOR LIGHT-WEIGHT HOLDERS.

OUTSIDE MEASUREMENT. ANY OPENING.

4 x 5	\$0 28	6½ x 8½	\$0 34
4¼ x 5½	29	8 x 10	40
4¼ x 6½	30	10 x 12	60
5 x 7	31	11 x 14	66
5 x 8	32	14 x 17	80

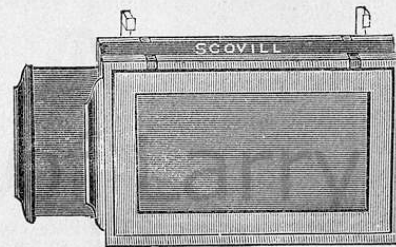
THE SCOVILL DRY PLATE HOLDER.

(PATENTED.)



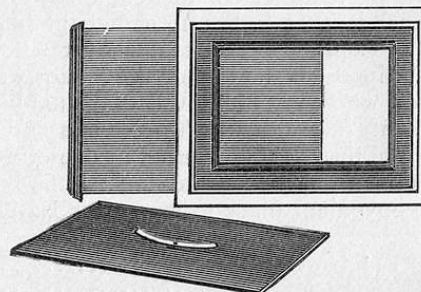
Scovill's Patent Double Dry Plate Holders are reversible, and made to receive kits.

THE DAISY DRY PLATE HOLDER.



“This holder is a Daisy.” The frequent repetition of this exclamation fixed the name by which our new holder is designated. It has the great merit of being lighter and of occupying less space than any other substantial holder that has ever been devised. The Daisy Holder opens like a book when the dry plates are being put into or taken out of it, and is so arranged that light cannot penetrate through from one side to the other. There are no projecting screws on this holder. What supplies their place is simple and more effective. The slides have no catches, as they are unnecessary.

THE FLAMMANG SINGLE DRY PLATE HOLDER.



(Patented.)

ARRANGED TO TAKE KITS OF LESSER SIZE

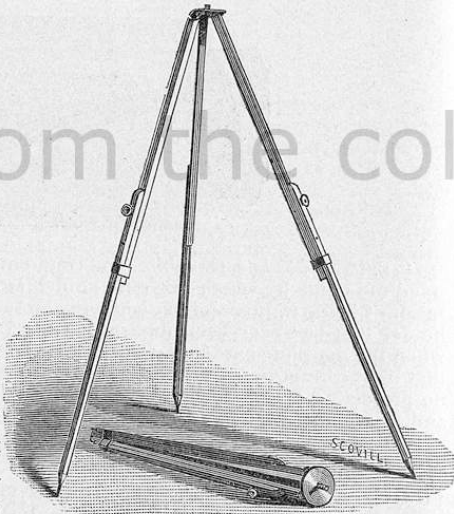
The Holders described on the previous page, for use in very hot or cold, or very moist climates, should be made of cherry with zinc slides. In fact, the hardwood Holders are very desirable anywhere.

Size.	Scovill's Patent Double Dry Plate Holder. Kits extra.	Daisy Double Dry Plate Holder. Kits extra.	Flammang's Single Dry Plate Holder. With Kits.
3½x4¼.....	\$1 50	\$1 75	\$1 50
4x5.....	1 75	2 00	1 75
4½x5½.....	1 85	2 10	1 85
4½x6½.....	1 90	2 25	1 90
5x7.....	2 10	2 35	2 10
5x8.....	2 20	2 50	2 20
6½x8½.....	3 80	4 20	3 80
8x10.....	5 00	6 00	5 00

THE SCOVILL EXTENSION TRIPODS.

THIS Tripod possesses special advantages.

It can be set up, ready for use, quicker than any other, and with less trouble. By turning the brass buttons shown in the accompanying illustration, the legs may "in a twinkling" be extended to the desired length, and fastened. When this Tripod is placed on uneven ground, the camera it supports may be brought to the proper level by simply adjusting the length

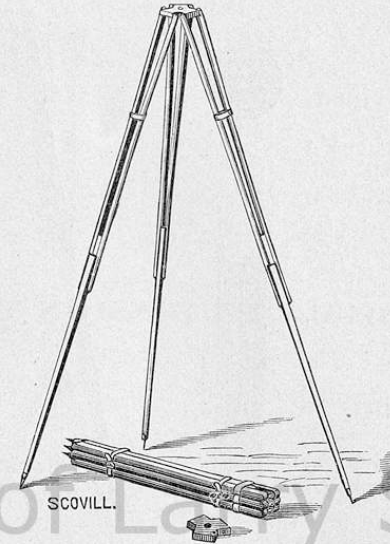


of the Tripod legs. Another commendable feature of the Scovill Extension Tripod is, that it has no detachable parts to be misplaced or lost. Combining as it does firmness, strength and lightness, this Tripod must at once find favor with the professional view taker, who very often wastes valuable time, or loses opportune moments in placing the Tripod legs and changing their position to include just what is wanted in a picture, and to level the camera. The artist for a sketching trip finds the top of this Tripod a very convenient place to fasten his Easel, as well as his camera.

No. 1, for 1-4 and 4x5 Cameras.....	each, \$3 00
" 2, " 5x8 Cameras.....	" 3 25
" 2½, " " ".....	" 3 50
" 3, " 6½x8½ Cameras.....	" 5 00

The Scovill Adjustable Tripod.

(FEATHER WEIGHT.)



Nothing more compact, certainly nothing as graceful in appearance and light in weight as the new Tripod for out-door Photography, just produced by the American Optical Company, has yet made its appearance. Because so readily adjusted to the utmost irregularity of the earth's surface, it was decided to call it the "Adjustable Tripod." Lady amateurs prefer it to any other pattern on account of its lightness and beauty. The top is covered with billiard-cloth to prevent marring the fine polish on our cameras, and the clamping screws are not detachable.

SCOVILL ADJUSTABLE TRIPOD.

No. 1.....	Price, each, \$3.50
" 2.....	" " 5.00

Scovill Adjustable Jointed Tripod, to fold and pack in a 22-inch Valise..... \$4.00
Do. with Canvas Bag and Handle.. 4.75



THE IMPROVED TAYLOR' TRIPOD.

The illustration here presented makes an extended description unnecessary. Suffice it to say that this tripod is very firm when set up, and folds up compactly by simply pressing together the two upper joints of each leg, thus unsetting them from the pins on the brass top and then doubling them over on to the third joint. This movement is naturally reversed when placing the tripod in position to support the camera.

Price, with metal disc and non-detachable screw.....\$2.25 each.
Adapted for cameras from 1-4 to 8x10 size

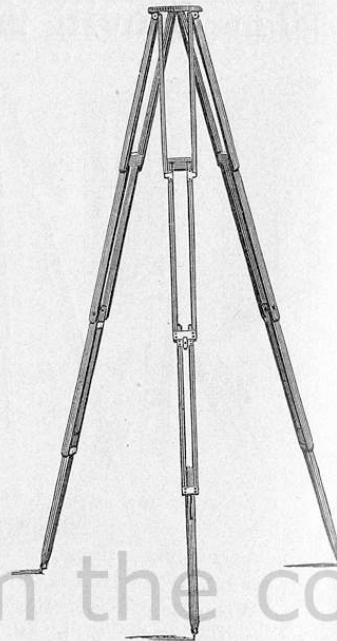
The Daisy Tripod.

An inspection of one of these Tripods will convince the most skeptical that it has no superior for ease of adjustment, lightness and compactness.

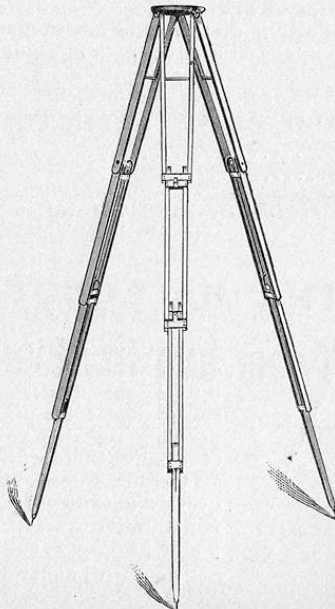
Length, when folded, 16½ inches.

Weight, 2 lbs.

Price, \$5.00.



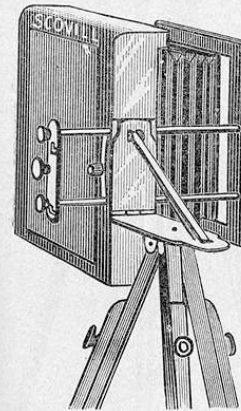
Mignon Tripod.



This Tripod weighs only 2 lbs. 2 ozs., and measures but 17 inches when folded.....Price, \$5 00

Patent Camera Reversing Attachments.

ADAPTED ONLY TO SCOVILL EXTENSION TRIPODS.



No. 1, with No. 1 Extension Tripod, and Camera Bed Plate..... \$4 50

No. 2, with No. 2 Extension Tripod, \$5 00

“When the means for the reversal of a camera are brought into notice, it is a fair test to ascertain how quickly the movement can be consummated; is the mechanism intricate or the reverse; and, finally, does it aid in picture-taking, or, per contra, impair the worth of the production.

“When the new reversing attachment devised at the American Optical Co.’s factory is seen, no manual of instruction need be consulted to ascertain how it is applied or worked. This is obvious. A cut does not convey an idea of its merit thus readily.

“Two brass plates, hinged at the end, are opened to form a right angle, and held rigidly in that position, or are brought together and tightly clamped by a rod with a hooked end, which plays through an opening in the brass plate secured fast to the tripod top. Upon the upper plate the camera is set or unset at pleasure. Whether in the vertical or horizontal position, the camera is held so firmly as to be secured against vibration. The reversal can be effected in an instant.”

THE HALLENBECK

Sensitized Paper and Dry Plate Safety Box.

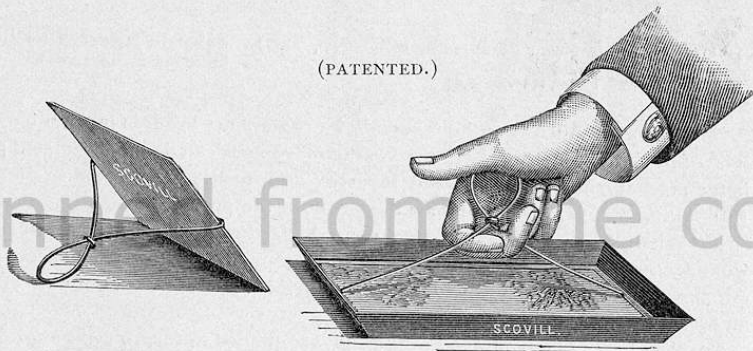
Size.	Price, Ordinary.	Price, Cedar lined.
4 x 5	\$1 00	\$1 50
5 x 8.....	1 15	1 65
6½ x 8½.....	1 25	1 75
8 x 10.....	1 50	2 00
20 x 24.....	4 50	5 50

These boxes are provided with lock and key, and with weighted inside lid to keep paper flat.

❖ RUSSELL ❖

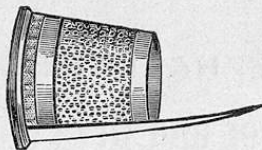
Negative Clasp and Rack for Drying.

By using the **Russell Negative Clasp and Rack for Drying**, there is no need of wetting or staining the fingers in the developer, or of touching a plate until after it has been developed, varnished and dried. Adaptable for all sizes, from 3¼x4¼ to 8x10 inclusive. Price, 15c. each.



(PATENTED.)

Scovill's Efficient Plate Lifter.

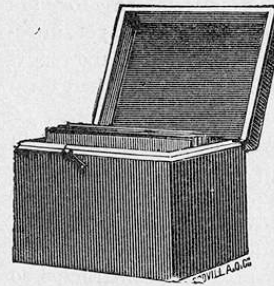


This Plate Lifter is very nearly like an ordinary open end **Thimble** with a **Pointed piece of Metal** soldered securely to it, as shown in the illustration.

Where a number of plates are developed in one dish, this Plate Lifter is not only a convenience, but quite a necessity.

Being the largest makers of Thimbles in the country, we are enabled to offer these Plate Lifters for the nominal price of 15 cents each.

NEGATIVE BOXES.



FOR HOLDING
TWENTY-FOUR PLATES
EACH.

	Regular, with Hook.	Light Tight, with Lock and Key.		Regular, with Hook.	Light Tight, with Lock and Key.
3¼ x 4¼.....	\$0 62	\$1 62	4 x 8.....	\$0 75	\$1 75
4 x 5.....	65	1 65	5 x 7.....	85	1 85
4¼ x 5½.....	70	1 70	5 x 8.....	90	1 90
4¼ x 6½.....	75	1 75	6½ x 8½.....	1 00	2 00
4 x 7.....	75	1 85			

SCOVILL DEVELOPING BOTTLE,

For Holding

Stock Solutions.

EITHER

Or Carbonate of Soda used

Ferrous Oxalate Developer

with Pyro. Developer.



SUPPLIED WITH PURE CLOTH RUBBER TUBING (GUARANTEED).

Bottle to hold one pint of solution.....	each,	\$0 60
“ “ one quart “.....	“	75
“ “ two quarts “.....	“	1 00
“ “ one gallon “.....	“	1 25

LABEL WITH DIRECTIONS FOR USE ON EACH BOTTLE.

The SCOVILL PEERLESS DARK-ROOM LANTERN.



"This is without question the best Lantern for the photographers' use yet introduced." Such is the report of experts who have had them in use for months.

Why they were agreed in their conclusions :

Because the ventilation is perfect, and danger of overheating overcome.

Because it is constructed so that white light does not escape.

Because it gives ample light for the dark-room.

Because the abundant light does not fog, but does show any spot or blemish in the plate.

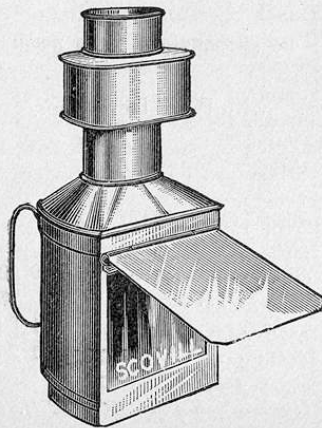
Because so much of the light may be thrown into the developing dish and be shaded from the eyes.

Because it may be used either with coal oil or candle.

Because the flame may be so quickly controlled by unlatching the door or uncatching the bottom of the Lantern.

Price, \$2.50.

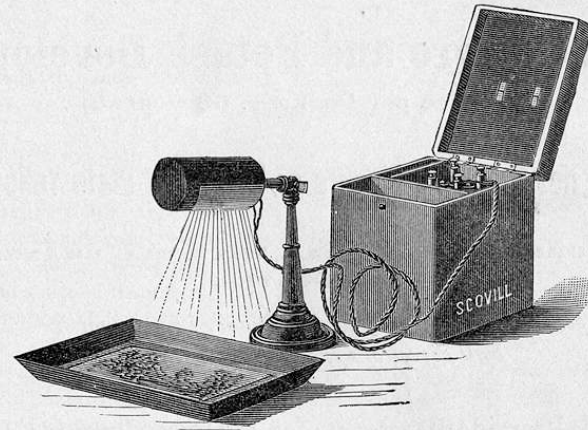
The W. I. A. Petite Dry-Plate Lantern



Will be found quite superior to any lantern previously offered at a smaller price than the Scovill Peerless Lantern. It is much to be preferred above an oil consumer, on account of safety and cleanliness. The light emitted is abundant, and the ventilation perfect. When not in use the chimney of this petite lantern may be taken off and placed inside over the candle.

Price, \$1.25.

The Scovill Electric Dark Room Lamp. WITH NON-ACTINIC SHADE.



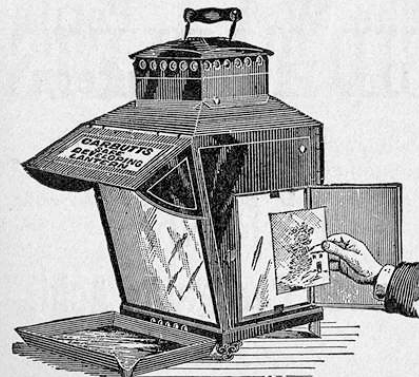
Good features never before combined for the dark room.

- Light without heat.
- Light without danger of fire.
- Light without smoke or smell.

Pure air and ventilation for the dark room.

Three candle-power Lamp.....\$7.00
 " " " " with Switch..... 8.00

CARBUTT'S Multum in Parvo Dry Plate Lantern.



Has three separate and distinct forms of light, and can be used for seven or more different operations in photography. It is adapted for the use of either oil or gas; is provided with coal-oil lamp, with improved patent burner and silvered reflector; is about nine inches square by fourteen inches high, with eight by ten light of deep ruby glass in front, and good for protecting the eyes from the glare of the red light.

Price, \$6.00.

Boxed ready for shipment.

Lantern arranged for developing, and after fixing examining negatives by opal light.

S. P. C. CARBONATE SODA DEVELOPER,

Price per Package, 50 Cents.

S. P. C. Pyro and Potash Developer,

Price per Package, 60 Cents.

Do not Stain the Fingers or Leave the Plate Yellow.

WORK EQUALLY WELL WITH ALL BRANDS OF PLATES.

*Giving perfect detail, density and brilliancy in the negative.
Full directions enclosed in each package.*

S. P. C. Bromide Developer, for Eastman Bromide Paper,

Price, 75 Cents.

A Great Convenience in Developing Dry Plates.



PELLETONE
PYROGALLIC
ACID TABLETS

Put up in bottles, each containing 100 two-grain (*exactly 2 grains*) tablets of

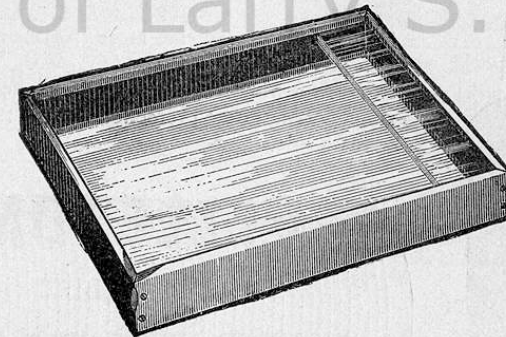
SCHERING'S
Unrivald Pyrogallic Acid.

Price per Bottle40 Cents.

The Latest S. P. C. Solutions, Ready Prepared for the use of Photographers.

- Flandreau's S. P. C. Hypo Eliminator, with book of Test Paper.....Price, \$0 50
- Flandreau's S. P. C. Retouching Fluid, for Varnished and Unvarnished Negatives.....Price per bottle, 25
- Flandreau's S. P. C. Orthochromatic Solutions :
Erythrosine Solution and Xanthine Collodion, Price per package, including full directions..... 1 50
- S. P. C. Bromide Paper Developer..... 75

The Acme Glass Bottom Developing Trays FOR DRY PLATES.



These Trays enable the operator to develop a plate without removing it from the solution until fully developed.

The Acme Trays are made of Walnut, with Glass Bottoms, and Receptacle at one end to hold the solution while looking at the plate. They also have buttons adhering to the glass to prevent suction.

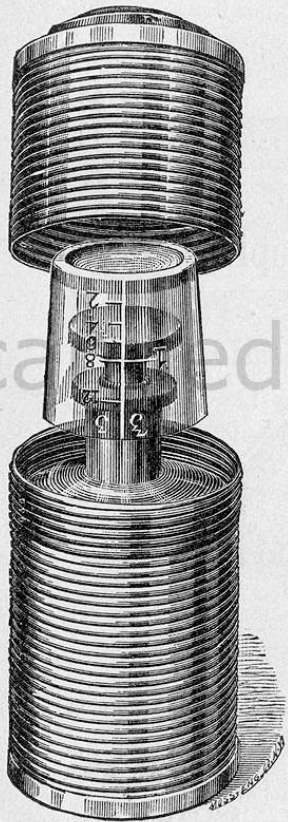
The Acme Trays are superior to all others in respect to cheapness, durability and cleanliness. They are lined with acid proof cement, and warranted not to leak.

PRICES FOR TRAYS WITH RESERVOIR TO DEVELOP

5 x 7 Plate and smaller..\$1 00	8 x 10 Plate..... \$1 30
5 x 8 " 1 20	10 x 12 " 2 00
6½ x 8½ " 1 25	11 x 14 " 2 25
	15 x 18 " 4 00
19 x 24 Trays for silvering whole sheets, without reservoir, but with double thick glass bottom.....	5 50

DEVELOPERS AND CHEMICALS IN SOLUTION
TRANSPORTED SAFELY IN

CORRUGATED PROTECTING CASES,

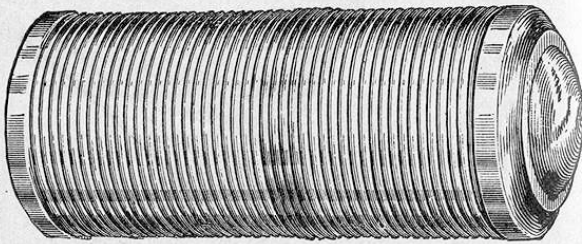


Supplied with Cut Glass Bottles, and Graduated
Tumbler to Measure Liquids.

CORRUGATED PROTECTING CASES are a great convenience to the landscape Photographer and amateur picture-taker when away from home. Though made of thin metal, the corrugation makes them so strong as to resist crushing. Being nickled and finely finished, the external appearance of these Cases is

DECIDEDLY TASTEFUL,

indeed, one would be more inclined to place them in a satchel than in a packing case. Whether carried about in a horizontal or vertical position, the locking ring affords perfect protection for the liquids contained in the bottle.



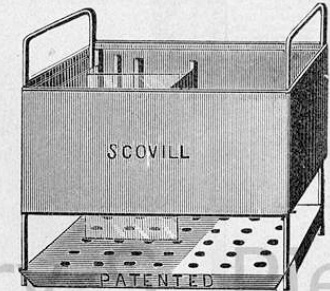
PRICE LIST.

Each.

- No. 1.** Diameter, 1 3/8 in. Length, 3 1/2 in. Weight, 4 1/2 oz. Furnished with 1 ounce bottle.....\$.50
- No. 3 A** Diameter, 2 in. Length, 5 1/2 in. Weight, 7 3/4 oz. Furnished with 4 oz. bottle, with tumbler, making 1/2 pint flask..... .85
- No. 4 A** Diameter, 2 1/2 in. Length, 7 in. Weight, 14 oz. Furnished with 8 oz. bottle, with tumbler, making 1/2 pint flask..... 1.10
- No. 13 A** Diameter, 2 3/4 in. Length, 6 in. Weight, 17 oz. Furnished with 8 oz. bottle, with tumbler, making 1/2 pint flask..... 1.20

— o THE SCOVILL o —
NEGATIVE WASHING BOXES.

(PATENTED.)



The Scovill Negative Washing Boxes are now made, as shown in the above illustrations, so that plates may be taken out without putting the fingers in the washing water. The perforated bottom prevents water from passing through the box with too great force, and distributes it so that every plate and every portion of a plate is equally washed, and this cannot be done with any other washing box.

PRICE LIST.

	EACH.
For 3 1/4 x 4 1/4 Plates.....	\$1.60
" 4 x 5 "	1.75
" 4 1/4 x 5 1/2 "	1.90
" 4 1/4 x 6 1/2 "	2.00
" 5 x 7 "	2.10
" 5 x 8 "	2.15
" 6 1/2 x 8 1/2 "	2.25
" 8 x 10 "	2.50
" 10 x 12 "	3.25
" 11 x 14 "	3.75
" 14 x 17 "	4.80

Scovill Adaptable Negative Washing Boxes.

(PATENTED.)

EACH.

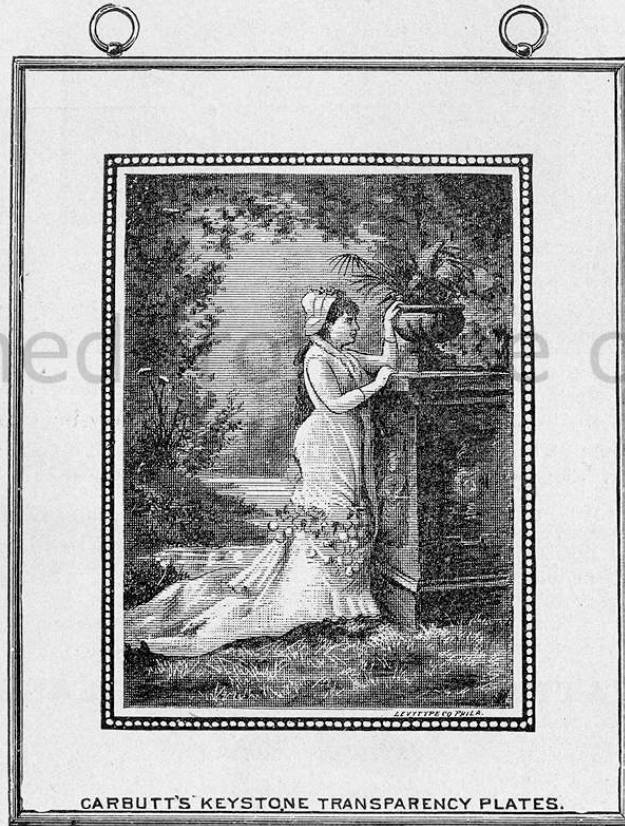
5 x 7, Adapted for 4x5 and 3 1/4 x 4 1/4 Plates.....	\$2.70
5 x 8, " 4x5 and 3 1/4 x 4 1/4 Plates.....	2.75
6 1/2 x 8 1/2, " 5x8, 5x7, 4x5 and 3 1/4 x 4 1/4 Plates	3.00
8 x 10, " 6 1/2 x 8 1/2, 5x8, 5x7, 4x5 and 3 1/4 x 4 1/4 Plates.....	3.50
10 x 12, " 8x10, 6 1/2 x 8 1/2, 5x8, 5x7, 4x5 and 3 1/4 x 4 1/4 Plates..	4.00
11 x 14, " 8x10, 6 1/2 x 8 1/2, 5x8, 5x7, 4x5 and 3 1/4 x 4 1/4 Plates..	4.50

TRANSPARENCIES.

DRAWING-ROOM TRANSPARENCY FRAMES.

These Frames can be described, or characterized by one phrase, "THE REFINEMENT OF TASTE."

SIZE.	EACH.	SIZE.	EACH.
4 x 5 inch.....	\$0 28	6½ x 8½ inch.....	\$0 38
4½ x 6½ ".....	30	6½ x 9 ".....	48
5 x 7 ".....	30	8 x 10 ".....	48
5 x 8 ".....	34	10 x 12 ".....	75
6½ x 7½ ".....	38	11 x 14 ".....	90



SCOVILL'S ETCHED GROUND GLASS

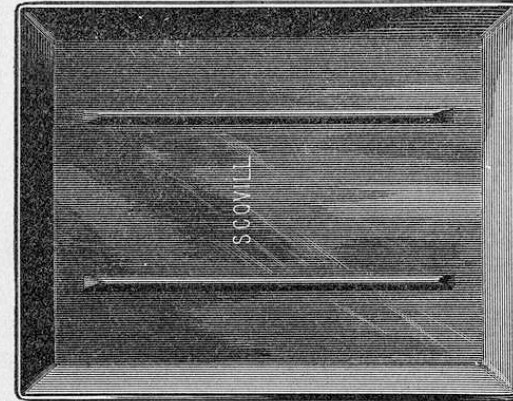
(WITH HANDSOME DESIGNS ON BORDER), FOR TRANSPARENCIES.

6½ x 7½ for 4 x 5 Picture.....	Per light,	27½ cts.
6½ x 9 " 4½ x 6½, 5x7, and 5x8 Picture.....	"	42½ "
8 x 10 " 6½ x 8½ Picture.....	"	50 "
10 x 12 " 8 x 10 ".....	"	62½ "

Plain Ground Glass for Transparencies.

	Per Light.		Per Light.		Per Light.
4 x 5.....	\$0.12	5 x 8.....	\$0.18	8x10.....	\$0.35
4½ x 5½.....	15	6½ x 8½.....	28	10x12.....	50
4½ x 6½.....	16				

SCOVILL'S GLOSSY RUBBER TRAYS.



After a protracted and costly series of experiments, we are now able to offer to the trade, a superior article in texture, durability and polish. The utility of the parallel ridgelets must at once be apparent to the photographic practitioner.

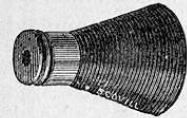
PRICE LIST.

No.	Size.	Price, each.
No. 200,	4½ x 5½ for 1-4, 4-5, and 4½ x 5½ plates.....	\$0 27
" 300,	5½ x 8½ for 5 x 7 and 5 x 8 ".....	60
" 400,	7 x 9 for 6½ x 8½ ".....	80
" 500,	8½ x 10½ for 7 x 9 and 8 x 10 ".....	1 30

C. C. H. FOCUSING GLASS.

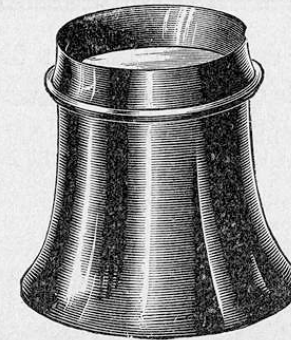
This is a desirable little instrument for aiding the operator in getting a sharp focus.

C. C. H. FOCUSING GLASS.....	\$4 00
Darlot Focusing Glass.....	3 00
Scovill's 3-legged Focusing Glass, each.....	75



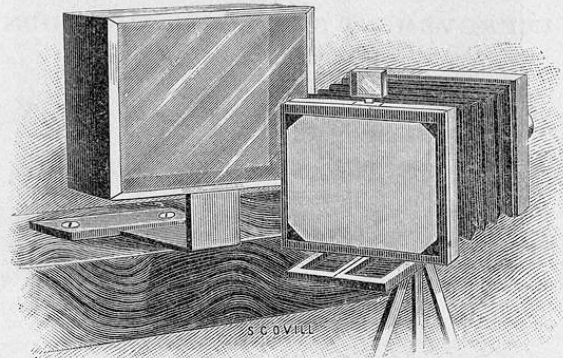
Save your eyes by using one of these instruments.

WATERBURY FOCUSING GLASS.



Waterbury Focusing Glass, Rubber.....each, \$0 40

SCOVILL MAGIC FINDERS.



THE Scovill Magic Finders will at once be preferred to any and all others. One sees through them a "marvelously clear *non-reversed* image *the exact proportion* of the reversed one on the ground-glass. The Magic Finders are light, ornamental, easily adjusted and detached, and will certainly be pronounced a great convenience by all view takers.

PRICE LIST.

No. 1, for 4 x 5 Camera,	- - - -	\$1.50
" 2, " 5 x 8 "	- - - -	1.75
" 3, " 6½ x 8½ "	- - - -	2.25
" 4, " 8 x 10 "	- - - -	2.75

Examine a sample, and be convinced of their superiority.

Scovill's Outfit for Making Lantern Slides consists of

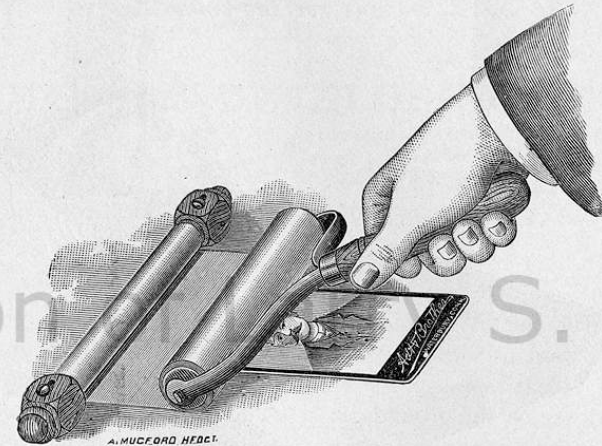
- 1 doz. Thin Crystal Glass.
- 2 " Black Mats.
- 1 package Black Adhesive Paper.
- 1 doz. 3¼x4 Keystone Gelatino-Albumen Dry Plates.
- 1 package S. P. C. Pyro and Potash Developer.
- 2 4¼x5½ Solid Glass Pans.
- 1 lb. Hyposulphite Soda.

The above, packed in wooden case, price complete. \$3 50

For enlarging, reducing, or copying Negatives to make Lantern Slides, we recommend the use of one of the Scovill Enlarging, Reducing and Copying Cameras.

The ADT PATENT PRINT MOUNTER.

THIS IMPROVEMENT SIMPLIFIES THE MOUNTING
OF PHOTOGRAPHIC PRINTS.



THE ADT PATENT PRINT MOUNTER

Consists of a spring roller, to which is attached a handle, and upon which is wound a band of fine cotton cloth, one end of the band being fastened to a rod, which is screwed to the mounting table.

After the pasted print has been placed upon the mount, the roller is drawn over the print, as shown in the cut, the spring roller drawing the cloth band perfectly tight, and re-winding it when the roller returns.

The uniform pressure of the roller removes all the air from under the print and presses it securely to the mount.

It absorbs the moisture from the surface of the print, leaving it perfectly smooth.

It will not displace the print, the roller being held in place by the tension of the spring on the band.

The band is of sufficient length so that when, in time, a portion of it becomes soiled, it can be wound upon the removable rod, which is fastened to the table, thereby exposing a clean surface.

When the entire band becomes soiled, it may be removed, washed, and replaced.

The ADT MOUNTER is made in a substantial manner.

It saves a vast amount of time and labor, and does the work better than by any other method.

Price, each, - - - - \$1.50.

THE ADT ADAPTABLE MANIPULATOR.

(PATENT APPLIED FOR.)



The combined features of this Device make it an indispensable contrivance for the Dark-Room.

As will be seen by a glance at the cut, this device not only protects the hands in lifting the plate from the developer, but as they do not come in contact with the tray, stained fingers are entirely avoided.

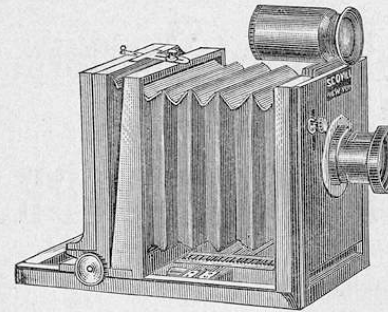
It not only prevents soiling the hands, but will be found a great aid in manipulating the plate.

It is attachable to and will firmly hold various sizes and depths of trays without adjusting.

The lifter is of German Silver, flattened at the end, thus requiring no extra amount of developer.

They are strongly made and heavily nickel-plated throughout.

Price, 85 Cents Each.



THE
"WATERBURY FINDER,"
Each \$3.00.
To Attach to Camera
FOR
Instantaneous Work.

PEERLESS FINDER,
Each, \$1.50.

—S. P. C.—

JAPANNED DEVELOPING TRAYS

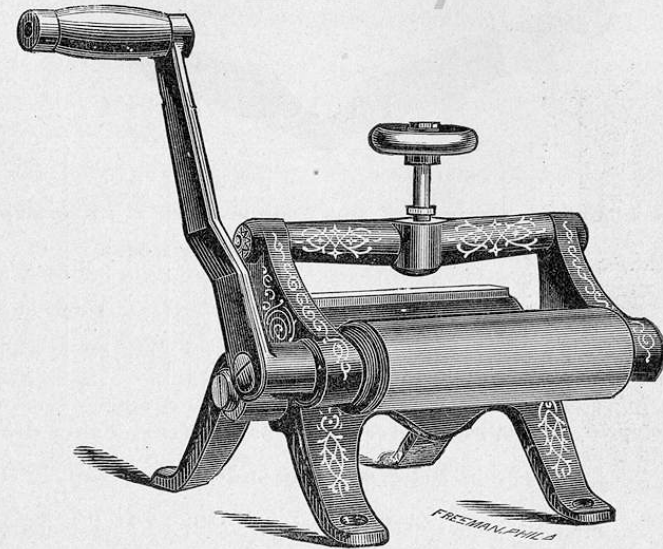
(Made of Selected Metal)

—FOR—

DRY PLATE PHOTOGRAPHY.

Size 4½ x 5½ inches.....	price each,	20 cents.
" 5½ x 8½ "	"	25 "
" 7 x 9 "	"	30 "
" 8½ x 10½ "	"	40 "

BURNISHERS.

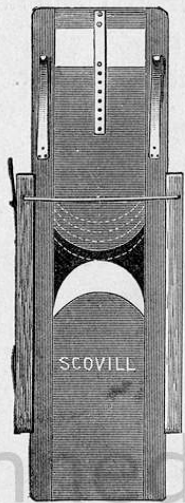


—PRICES—

6 inch roll.....\$13 00 | 10 inch roll.....\$20 00

If by accident, or otherwise, the burnishing tool becomes defaced, it can be replaced with a new tool at a mere nominal cost, and the machine is as good as new.

Scovill's Universal Safety Shutters.



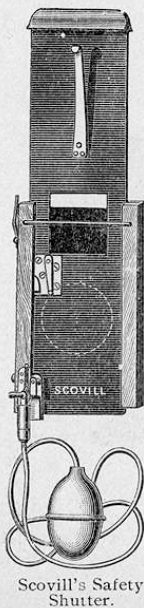
THIS Shutter is styled Universal, not only because more of the Scovill Safety Shutters are in use than of any other pattern, but because it can be arranged with a variety of openings, from $\frac{1}{4}$ to 2 inches at the center, as shown by the dotted lines of the accompanying illustration. Uniform distribution of light over the plate is insured by the form of opening.

The brakes on this Shutter make it safe to use, by preventing a recoil with the resulting double exposure, and the jarring common to many Shutters, which in time breaks apart the glasses of a Lens where cemented together—hence the designation "Safety Shutter."

PRICE LIST.

No.	Width of Opening in Slide.	Universal Shutters.	Universal Shutters with Pneumatic Release.	Safety Shutters.	Safety Shutters with Pneumatic Release.
1	$1\frac{1}{4}$ inches	\$2 70	\$4 20	\$1 20	\$2 70
2	$1\frac{1}{2}$ "	2 80	4 30	1 30	2 80
3	$1\frac{3}{4}$ "	2 90	4 40	1 40	2 90
4	2 "	3 00	4 50	1 50	3 00
5	$2\frac{1}{2}$ "	3 10	4 60	1 60	3 10
6	3 "	3 25	4 75	1 75	3 25

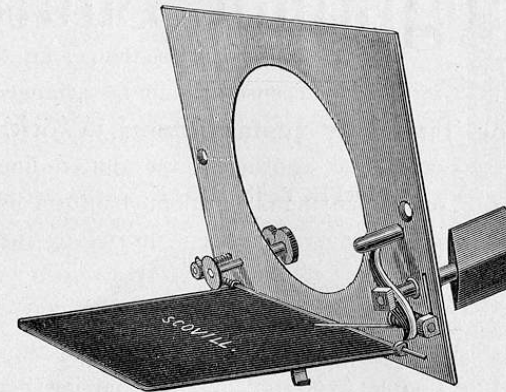
When ordering these Shutters, exact diameter of head of Lens should be given, so that the proper circular opening may be cut out to exactly fit hood of Lens. If not stated, the Shutters will be sent without the round opening being cut.



Scovill's Safety Shutter.

THE KELLOGG INSTANTANEOUS SHUTTER.

Price, \$5.00.



DESIGNED ESPECIALLY FOR INSTANTANEOUS WORK
UPON BOTH LAND AND WATER.

Is always in position ready for a "shot." Cannot receive any accidental injury, as it is situated inside the Camera and worked from the outside.

The effect of hinging the door at its lower side is to have the ground receive a longer exposure than the sky, which is a great advantage.

With the thumb-screw which controls the tension of the closing mechanism, the time of exposure can be varied at will.

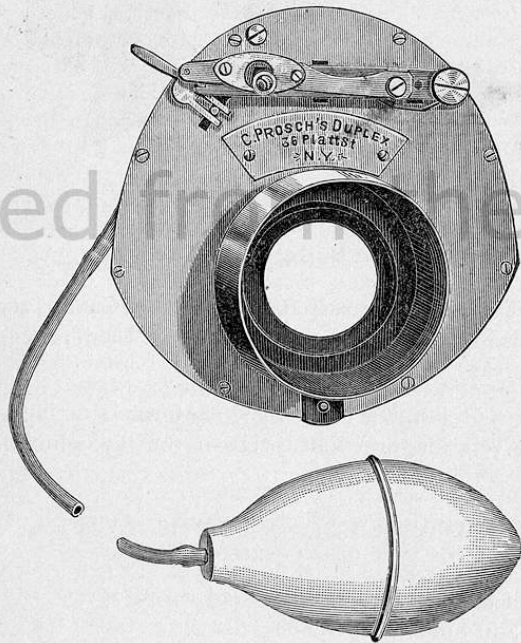
To focus, push in button under adjusting screw, which opens the shutter and holds it open.

To adjust the shutter it is simply necessary to remove the nuts from the inside ends of the spindles; remove the spindles and fasten the plate to the inside of the camera front by two small screws, so that the circular hole in the plate coincides with the hole in the front board for the lens; three holes having previously been made in the front board so that the three spindles can be replaced, and can turn easily in their bearings.

"DUPLEX" Photographic Shutter.

For Timed or Instantaneous Work.

PERFECT IN BOTH.



WITH THIS SHUTTER exposures can be made of any desired duration. It is equal to any requirement for the most rapid work, and as a time Shutter, exposures can be made as quick as two pulsations can be given to air bulb, (about one-tenth of a second) or of minutes duration.

"Duplex" Shutters work perfectly with even the very largest lenses, up to their full capacity; and several lenses can be used with the same Shutter. The Shutter gives a full opening; but yet by the peculiar opening in the exposure slides, any part of the picture can be favored, with more or less illumination, by turning the Shutter, sometimes even inverting it.

The illustration gives a front view of the Shutter, one-half size of No. 2, which is suitable for an 8 x 10 lens, or even larger, as it has an opening at the diaphragm of $1\frac{1}{4}$ inches.

Enclosed in metal casing, are two pivoted slides which moves in unison, in opposite directions, and makes the exposure in one continuous movement, without the slightest jar, even when worked at its greatest rapidity. The motive spring is on the back of Shutter, and is of coiled wire; a perfectly reliable spring. Its tension is regulated by moving it along a series of notches. The exposure slides are moved by a stud on the lever shown on front, which passes through the Shutter, and a slot in each slide, and engages with the spring on the back. On the end of the lever are two notches hidden by the secondary lever. When the lever is fully depressed, the release catches in the upper notch and locks the slides closed. A slight pressure to the air bulb or a trip to the projecting end of the release, frees the slides, and they make an instantaneous movement, or exposure. If the secondary lever has been brought into play, by a turn or two to a milled-head nut, the release will catch in the second or lower notch and hold the slides at a full opening, in which position they remain until a second pressure is given to the bulb, or the release tripped by hand.

The Shutters are made in standard sizes, having narrow threaded collars on each side, to which can be adapted tubes to receive lenses, which are to be transferred from regular lens tube. Any intelligent instrument maker or machinist can adapt such tubes to lenses; but if the complete lens, or a tube already fitted for the lenses, is sent with order, the Shutter will be returned all complete. *The original tube is not used.* Diaphragms of a new design, having a recessed surface which cannot become brightened in use, are furnished in sets of six at a cost of 75c. single, or additional ones at 15c. each. When more than one lens is used with a Shutter, additional diaphragms may be required. The sizes of openings required should be given. When more than one lens is to be fitted to a Shutter, an additional charge will be made. This charge will vary according to sizes, but will be about \$2.00 each.

Duplex Enlarged Revised List.

Numbers.....	00	0	0A	1	1A	2
Openings, inches..	$\frac{5}{8}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{3}{8}$	$1\frac{5}{8}$
Prices.....	\$11 50	12 00	12 50	13 00	13 50	14 00
Numbers		2A	3	4	5	6
Openings, inches.....		$1\frac{3}{8}$	$1\frac{5}{8}$	2	$2\frac{1}{8}$	$3\frac{1}{8}$
Prices.....		\$14 50	16 00	18 00	20 00	25 00

Opening in Shutter should be about the size of next to largest diaphragm. Shutters can be furnished complete for most standard Lens, but it is to **customer's** interest to forward his **Lens tube** to insure a perfect fit, which is returned to him intact, with complete Shutter.

GENERAL PRICE LIST

Chemicals subject to Fluctuation in Prices.

Glass Forms, Stereo....each, \$0 40	Glass Forms, 4 x 5....each, \$0 50
Card Glass Forms..... " 25	" 5 x 8.... " 1 00
Cabinet " " " 50	" 6½ x 8½.... " 1 25
Robinson's Straight Trimmers..... " 50	" " " " " 1 00
" Revolving " with guide..... " 50	
Scovill Focusing Cloths..... " 36	
Printing Frames, flat, 3¼ x 4¼..... " 38	
" " 4 x 5..... " 40	
" " 4¼ x 5½..... " 42	
" " 4¼ x 6½..... " 50	
" " 5 x 7..... " 52	
" " 5 x 8..... " 60	
" " 6½ x 8½..... " 40	
Neutral Oxalate Potash.....per lb., 40	
Protosulphate Iron..... " 20	
Sulphate Iron and Ammonia..... " 18	
Oxalic Acid.....per oz., 10	
Citric Acid..... " 15	
Bromide Ammonium..... " 12	
" Potassium..... " 10	
Iodide "..... " 30	
Nitrate Uranium..... " 70	
Red Prussiate Potash..... " 10	
Litmus Paper.....per sheet or book, 5	
" ".....per box, 50	
Carbonate Soda (Sal Soda).....per lb., 10	
Pyrogallic Acid.....per oz., 35	
Sulphuric Acid, in bottle and tin can..... " 20	
Bichloride Mercury..... " 15	
Chloride Ammonium..... " 10	
Liquid Ammonia, conc.....per lb., 32	
Hyposulphite Soda..... " 10	
Alum, Powdered..... " 20	
Chrome Alum (commercial) in box..... " 20	
India Ink (for stopping out).....per stick, 25	
Gihon's Opaque.....per cake, 50	
French Azotate (for toning).....per bottle, 25	
Chloride Gold and Sodium.....per bottle of 15 grains, 35	
" " " " " 30 " 55	
S. P. C. Negative Varnish.....per bottle, 35	
Parlor Paste (for mounting pictures).....½ pint jar, 25	
" " " " " pint bottle, 35	
" " " " " quart jars, 65	
Acetate Soda.....¼ lb. bottles, 15	
Ground Glass Substitute.....per bottle, 50	
Dropping Tubes.....each, 10	
W. I. A. Petite Lantern..... " 1 25	
Peerless Lanterns..... " 2 50	

REVISED AND REDUCED PRICE LIST

—OF—

CARBUTT'S KEYSTONE DRY PLATES.

DECEMBER 1st, 1886.

Size of Plates.	Sp'l Inst's and "B."	Stripping Plates.	Ortho'c and Transpar'cy.	Gr'd Glass Transpar'cy.	A Plain Opal		A Gr'd Opal	
					Dozen.	Dozen.	Dozen.	Dozen.
3¼ x 4	Dozen.	ThinCrystal Glass for Lantern Slides.	\$0 65	Dozen.	Dozen.	Dozen.	Dozen.	Dozen.
3¼ x 4¼	\$0 45								$0 55
4 x 5	65	80	\$1 00	65	80			
4¼ x 5½	75	90	1 12	75	90			
4¼ x 6½	90	1 08	1 35	90	1 12			
4¾ x 6½	95	1 20	....	....	....
5 x 7	1 10	\$1 45	1 40	1 75	1 10	1 35		
5½ x 7	1 25	1 65	1 50	....	....	
5 x 8	1 25	1 65	1 50	1 90	1 25	1 55		
6½ x 8½	1 65	2 20	2 00	Doz. 2 60	1 65	2 05		
8 x 10	2 40	3 20	3 00	Doz. 1 35	2 40	3 00		
				Doz. 3 75				
				Doz. 1 90				
10 x 12	3 80	5 05	4 50	Doz. 2 80	3 80	4 75		
				Doz. 3 60				
11 x 14	5 00	6 65	5 85	Doz. 3 60	5 00	6 25		
				Doz. 6 75				
14 x 17	9 00	12 00	10 80	Doz. 6 75	9 00	12 00		
							
16 x 20	12 50	16 65	....	....	....	....
							
17 x 20	13 00	17 30	....	....	....	....
							
18 x 22	15 50	20 00	....	....	....	....
							
20 x 24	18 50	24 50	....	....	....	....
							

SIZES 10 x 12 AND LARGER ARE PUT UP HALF DOZEN IN A BOX.

PYRO AND POTASH DEVELOPER, For Carbutt's Keystone Dry Plates.

No. 1.		No. 2.	
Water.....	10 oz.	Water.....	10 oz.
Citric acid.....	60 grs.	Crystallized sulphite soda.....	2 oz.
Crystallized sulphite soda.....	2 oz.	Carbonate of potash, C. P.....	4 oz.
Pyrogallie acid.....	1 oz.	Water to make up to 16 oz.	
Water to make up to 16 oz.			

N. B.—During Summer 1 dram bromide potash or ammonia may be added to No. 1.

DEVELOPER.—For Portraits on "Specials," add to 2½ ounces of water, distilled, melted ice, or well water, but *not rain* water, two drams each No. 1 and 2; less of No. 2 is required during warm weather. If more density is desired add more of No. 1, if more detail and softness add more of No. 2, bromide to be added to restrain and give density if required. Keep solutions cool, 60 to 70 degs. is a good temperature.

For Landscapes and Interiors on "Specials," where the exposure may be uncertain, lay the exposed plate in the Pyro Solution for a minute or two, then into the developing glass put half the quantity of No. 2 as has been taken of No. 1, and pour the Pyro Solution into it, and back onto the plate, by proceeding in this manner, adding more of No. 2 to bring out the image, or a few drops of a 10 per cent. solution of bromide to restrain as may be required, much better results may be looked for than if a full quantity of No. 1 and No. 2 were mixed at once. FOR INSTANTANEOUS VIEWS or very dark interiors, we recommend the following procedure: To 4 ounces water add 1 dram No. 2, soak plate in this while preparing the following: water, 3 ounces, of Nos. 1 and 2 each 3 drams, 5 drops Bromide Solution, pour off the dilute alkali, and flow this strong developer over the plate; be careful to expose the plate as little as possible to the light used to develop by, no matter how safe it may be considered for ordinary development. Do not hurry by adding more No. 2; cover up the pan and give the developer time to act, when more of No. 1 or No. 2 may be added as may be required. FOR INSTANTANEOUS VIEWS ON WATER, it will be best to treat the plate same as for Landscapes, by soaking plate in Pyro Solution first.

For Landscape, Machinery, Architecture, &c., on B plates, use ½ dram each Nos. 1 and 2 to each ounce water, adding more of each as may be required, No. 1 giving density, No. 2 giving detail and hastening development.

After rinsing off developer, immerse in 10 per cent. solution common alum, 3 to 5 minutes, then wash and fix in Hypo Solution, hyposulphite of soda 4 ounces water, 20 ounces, after which wash most thoroughly and dry spontaneously, and varnish with Keystone Negative Varnish. Should the film have a yellow tinge after fixing and washing, immerse for a few minutes, or until color is removed, in the following Bleaching Solution:

Water.....	20 ounces
Alum.....	1½ "
Sulphuric acid.....	½ "

Wash afterwards and dry spontaneously

Per package.....60 cents.

DEVELOPING FORMULA —FOR— CARBUTT'S GELATINO-ALBUMEN OPALS AND TRANSPARENCIES.

When to be made by contact, use artificial light, either gas or coal oil lamp, but the most efficient is the light from CARBUTT'S MULTUM IN PARVO LANTERN.

Use a deep printing frame with a piece of plate or flat glass to lay Negative on, place over the Negative a Gelatino-Albumen Plate, then expose from 10 to 20 seconds or what may be considered sufficient according to the intensity of Negative being used; the time of exposure and strength of developer are the two principal factors in determining the TONE and DENSITY of the resultant transparency; a short exposure with strong developer yields vigorous transparencies with rich velvet black tone, long exposure and dilute developer gives warm brown tones, fine gradation with transparency of detail in the shadows, suitable for Optical Lantern Slides.

For transparencies for the window, a mask with a suitable central opening should be placed *between* the Negative and Gelatine Dry Plate; a suitable paper is a thin enameled surface paper of a turkey red color, this will be found to protect the margin of the plate and give a sharp clean outline to the picture. For Lantern Slides, the dry plate is placed in contact with the Negative without a mask.

No. 1.		No. 2.	
Neutral oxalate potash.....	8 ounces.	Sulphate of iron.....	3 ounces.
Warm distilled or water from ice.....	32 ounces.	Distilled or ice water.....	32 ounces.
Citric acid.....	60 grains.	Sulphuric acid.....	8 drops.
Bromide of potassium.....	180 grains.		

For use, mix equal parts No. 1 and No. 2, pouring number two into number one.

No. 3.—FIXING SOLUTION.

Hyposulphite of soda.....	4 ounces.	Water.....	20 ounces.
---------------------------	-----------	------------	------------

No. 4.—CLEARING SOLUTION.

Water.....	20 ounces.	Alum.....	1½ ounces
Sulphuric acid.....	¼ ounce.		

DEVELOPER FOR TRANSPARENCIES.

No. 1.—Oxalate solution.....	2 ounces.	No. 2.—Iron Solution.....	2 ounces.
------------------------------	-----------	---------------------------	-----------

Place solution in developing dish and lower plate into it, letting the developer flow over in one even wave; develop until detail in high lights is plainly visible, wash off developer and fix in No. 3 Solution; when quite cleared of all unreduced bromide, wash well, immerse one or two minutes in No. 4, again thoroughly wash and finish by going over the surface with a swab of absorbent cotton, while water runs over the plate; dry spontaneously.

DEVELOPMENT OF OPALS.

Proceed as for transparencies, developing until detail in face of a portrait is just well out, remove from developer and flow over a 5-grain solution bromide of potassium to *instantly* arrest development and preserve brilliancy; wash, fix, etc., as recommended for transparencies.

NOTE.—Opals to be viewed as positives by reflected light, development should be stopped as soon as the fine half tones in the face of a portrait are visible; when to be viewed by transmitted light either for the window or lamp shades, development should continue until detail in face of a portrait, or high lights in a landscape, is well out, increasing the exposure to 25 or 30 seconds to lamp or gas-light, and diluting developer with one-third water gives warmer tones. Opal plates with matt surface for artist work are made to order on a slight advance in cost above bright surface opal.

DEVELOPING FORMULA

- -FOR-

CARBUTT'S GELATINO-CHLORIDE

OPALS AND TRANSPARENCIES.

<p>No. 1.</p> <p>Neutral oxalate of potash..... 3 ounces. Chloride of ammonium.....40 grains. Bromide of ammonium.....20 grains. Distilled, or water from Ice.....20 ounces.</p>	<p>No. 2.</p> <p>Protosulphate of iron.....240 grains. Water..... 20 ounces. Citric acid.....120 grains.</p>
<p>No. 3.—ALUM SOLUTION.</p> <p>Water.....20 ounces. Pulverized alum..... 1½ ounce.</p>	<p>No. 4.—FIXING BATH.</p> <p>Hyposulphite of soda..... 4 ounces. Water.....20 ounces.</p>

Expose plate in contact with Negative in a deep printing frame, to diffused light for from 4 to 8 seconds; lamp or gas light, 5 to 8 minutes, or to the light of 1 to 2 inches of burning magnesium ribbon, at a distance of 10 or 12 inches from negative. To develop, mix equal parts Nos. 1 and 2, pouring No. 2 into No. 1. The image should show gradually; for very warm tones, dilute developer with equal parts water and add 1 or 2 drops bromide solution to each ounce developer, but be sure and give at least double the exposure, do not carry the development of the opals too far as they lose very little in fixing. For a positive picture on opal, the development should be arrested the moment the detail shows in the high lights, and this is most effectually done by quickly removing the plate from the developer, and flushing over the surface a 5-grain solution bromide potassium; this instantly arrests development and preserves the brilliancy of the image.

Wash and immerse in No. 3 for 3 to 5 minutes, again wash and fix in Solution No. 4 for at least 10 minutes—wash thoroughly and before placing to dry, go over the surface with a swab of absorbent cotton while water is flowing over it, then dry spontaneously. Opal plates with matt surface for artist work are made to order on a slight advance in cost above bright surfaced opal.

N. B.—If the tone by simple development should not be considered satisfactory and a more decided purple tone desired, this can be secured by toning the chloride print before fixing, using the ordinary toning bath, in this case the exposure must be increased and developer diluted as recommended for warm tones, so as to produce by development a decided red image. See PHOTOGRAPHIC TIMES, March 20th, 1885, pages 140 and 145.

Scovill's Photographic Series.

	Price, Per Copy.
No. 1.—THE PHOTOGRAPHIC AMATEUR.—By J. TRAILL TAYLOR. A Guide to the Young Photographer, either Professional or Amateur. (Second Ed.)	\$0 50
No. 2.—THE ART AND PRACTICE OF SILVER PRINTING. (Second Edition)	5c
No. 3.—Out of print.	
No. 4.—HOW TO MAKE PICTURES.—(Fourth edition.) The A B C of Dry-Plate Photography. By HENRY CLAY PRICE. Illuminated Cover, 50 cts.; Cloth Cover.....	75
No. 5.—PHOTOGRAPHY WITH EMULSIONS.—By CAPT. W. DE W. ABNEY, R.E., F.R.S. A treatise on the theory and practical working of Gelatine and Collodion Emulsion Processes. (Second Edition.).....	1 00
No. 6.—No. 17 has taken the place of this book.	
No. 7.—THE MODERN PRACTICE OF RETOUCHING.—As practiced by M. Piguepé, and other celebrated experts. (Third Edition).....	25
No. 8.—THE SPANISH EDITION OF HOW TO MAKE PICTURES.—Ligeras Lecciones sobre Fotografia Dedicados a Los Aficionados.....	1 00
No. 9.—TWELVE ELEMENTARY LESSONS IN PHOTOGRAPHIC CHEMISTRY.—Presented in very concise and attractive shape. (Second Edition.)	25
No. 10.—THE BRITISH JOURNAL PHOTOGRAPHIC ALMANAC FOR 1883.	25
No. 11.—Out of print.	
No. 12.—HARDWICH'S CHEMISTRY.—A manual of photographic chemistry, theoretical and practical. Ninth Edition. Edited by J. TRAILL TAYLOR, Leatherette Binding.....	2 50
No. 13.—TWELVE ELEMENTARY LESSONS ON SILVER PRINTING. (Second Edition).....	50
No. 14.—ABOUT PHOTOGRAPHY AND PHOTOGRAPHERS.—A series of interesting essays for the studio and study, to which is added European Rambles with a Camera. By H. BADEN PRITCHARD, F.C.S.....	50
No. 15.—THE CHEMICAL EFFECT OF THE SPECTRUM.—By DR. J. M. EDER.....	25
No. 16.—PICTURE MAKING BY PHOTOGRAPHY.—By H. P. ROBINSON. Author of Pictorial Effect in Photography. Written in popular form and finely illustrated. Illuminated Cover, 75 cts.; Cloth.....	1 00
No. 17.—FIRST LESSONS IN AMATEUR PHOTOGRAPHY.—By PROF. RANDALL SPAULDING. A series of popular lectures, giving elementary instruction in dry-plate photography, optics, etc. (Second Edition).....	25
No. 18.—THE STUDIO; AND WHAT TO DO IN IT.—By H. P. ROBINSON. Author of Pictorial Effect in Photography, Picture Making by Photography, etc.; Illuminated Cover.....	75
No. 19.—THE MAGIC LANTERN MANUAL.—(Second edition.) By W. I. CHADWICK. With one hundred and five practical illustrations; cloth.....	75
No. 20.—DRY PLATE MAKING FOR AMATEURS.—By GEO. L. SINCLAIR, M.D.,	50
No. 21.—THE AMERICAN ANNUAL OF PHOTOGRAPHY AND PHOTOGRAPHIC TIMES ALMANAC FOR 1887.—(Second Edition.) 50 cents; (postage, ten cents additional). Cloth bound.....	1 00
No. 22.—PHOTOGRAPHIC PRINTING METHODS.—By the Rev. W. H. BURBANK. A Practical Guide to the Professional and Amateur Worker. Cloth Binding.....	1 00
No. 23.—A HISTORY OF PHOTOGRAPHY: Written as a Practical Guide and an Introduction to its Latest Developments, by W. JEROME HARRISON, F. G. S., and containing a frontispiece of the author. Cloth bound.....	1 00
No. 24.—THE AMERICAN ANNUAL OF PHOTOGRAPHY AND PHOTOGRAPHIC TIMES ALMANAC FOR 1888.—50 cents; (postage, ten cents additional). Cloth bound.....	1 00

SCOVILL'S

OTHER

Photographic Publications.

	Price, Per Copy
HOW TO MAKE PHOTOGRAPHS.—Containing full instructions for making Paper Negatives. Sent free to any practitioner of the art. New edition just out.	
ART RECREATIONS.—A guide to decorative art. Ladies' popular guide in home decorative work. Edited by MARION KEMBLE.....	\$2 00
THE FERROTYPERS' GUIDE.—Cheap and complete. For the ferrotypist, this is the only standard work. Seventh thousand.....	75
THE PHOTOGRAPHIC STUDIOS OF EUROPE.—By H. BADEN PRITCHARD, F.C.S. Paper, 50 cts.; Cloth.....	1 00
PHOTOGRAPHIC MANIPULATION.—Second edition. Treating of the practice of the art and its various applications to nature. By LAKE PRICE.....	1 50
HISTORY AND HAND-BOOK OF PHOTOGRAPHY.—Translated from the French of Gaston Tissandier, with seventy illustrations.....	2 50
AMERICAN CARBON MANUAL.—For those who want to try the carbon printing process, this work gives the most detailed information.....	2 00
MANUAL DE FOTOGRAFIA.—By AUGUSTUS LE PLONGEON. (Hand-Book for Spanish Photographers.) Reduced to.....	1.00
SECRETS OF THE DARK CHAMBER.—By D. D. T. DAVIE.....	1 00
HOW TO SIT FOR YOUR PICTURE.—By CHIP. Racy and sketchy.....	30
THE PHOTOGRAPHER'S GUIDE.—By JOHN TOWLER, M.D. A text-book for the Operator and Amateur.....	1 50
A COMPLETE TREATISE ON SOLAR CRAYON PORTRAITS AND TRANSPARENT LIQUID WATER COLORS.—By J. A. BARHYDT. Practical ideas and directions given. Amateurs will learn ideas of color from this book that will be of value to them. And any one by carefully following the directions on Crayon, will be able to make a good Crayon Portrait.....	50
THE BRITISH JOURNAL ALMANAC FOR 1887.....	50
PHOTO NEWS YEAR BOOK OF PHOTOGRAPHY for 1887.....	50
CANOE AND CAMERA.—A Photographic tour of two hundred miles through Maine forests. By THOMAS SEDGWICK STEELE. Illustrated.....	1 50
PADDLE AND PORTAGE.—By THOMAS SEDGWICK STEELE.....	1 50
PRACTICAL INSTRUCTOR OF PHOTO-ENGRAVING AND ZINC ETCHING PROCESSES.—By ALEX. F. LESLIE.....	50
PHOTO-ENGRAVING on Zinc and Copper in Line and Half-Tone, and PHOTO-LITHOGRAPHY. A Practical Manual, by W. T. WILKINSON. Cloth bound. ..	2 00

PHOTOGRAPHIC REFERENCE BOOKS.

	Price, Per Copy.
AMERICAN HAND-BOOK OF THE DAGUERRETYPE.—By S. D. HUMPHREY. (Fifth Edition.) This book contains the various processes employed in taking Heliographic impressions.....	10
THE NEW PRACTICAL PHOTOGRAPHIC ALMANAC.—Edited by J. H. FITZGIBBON.....	25
MOSAICS FOR 1870, 1871, 1872, 1873, 1875, 1878, 1882, 1883, 1884.....	25
BRITISH JOURNAL ALMANAC FOR 1878, 1882.....	25
PHOTO. NEWS YEAR-BOOK OF PHOTOGRAPHY FOR 1871, 1882.....	25
THE PHOTOGRAPHER'S FRIEND ALMANAC FOR 1873.....	25

A STANDARD BOOK OF REFERENCE.

THE

AMERICAN ANNUAL OF PHOTOGRAPHY

AND

"PHOTOGRAPHIC TIMES" ALMANAC

For 1887,

C. W. CANFIELD, Editor,

ARE RAPIDLY DISAPPEARING.

It contains five full page illustrations:

AN EXQUISITE PHOTO-GRAVURE, by Ernest Edwards.**A BROMIDE PRINT, by the Eastman Company.****A SILVER PRINT, by Gustav Cramer, of St. Louis.****TWO MOSSTYPES, by the Moss Engraving Company.****197 pages of Contributed Matter, consisting of articles on various subjects, by 80 representative writers of this country and Europe.**

Also, in addition to the contributed articles:—Yearly Calendar. Eclipses, the Seasons. Church Days, Holidays, etc. Monthly Calendar, giving Sunrise and Sunset for every day in the year; Moon's phases; also, dates of meetings of all American Photographic Societies. A list of American and European Photographic Societies. Photographic Periodicals, American and European. Books relating to Photography, published 1886. Approved Standard Formulæ for all processes now in general use. Tables of Weights and Measures. American and Foreign Money Values. Comparisons of Thermometric Readings. Comparisons of Barometric Readings. Symbols and Atomicity of the Chemical Elements. Symbols, Chemical and common names and solubilities of the substances used in Photography. Tables for Enlargements and Reductions. Equations relating to Foci. Tables of Comparative Exposures. Freezing Mixtures. Photographic Patents issued 1886. Postage Rates. All Tables, Formulæ, etc., brought down to date and especially prepared or revised for this work.

Price, per Copy, 50 Cents. By mail, 10c. extra.**" Cloth Bound, \$1.00. " "**

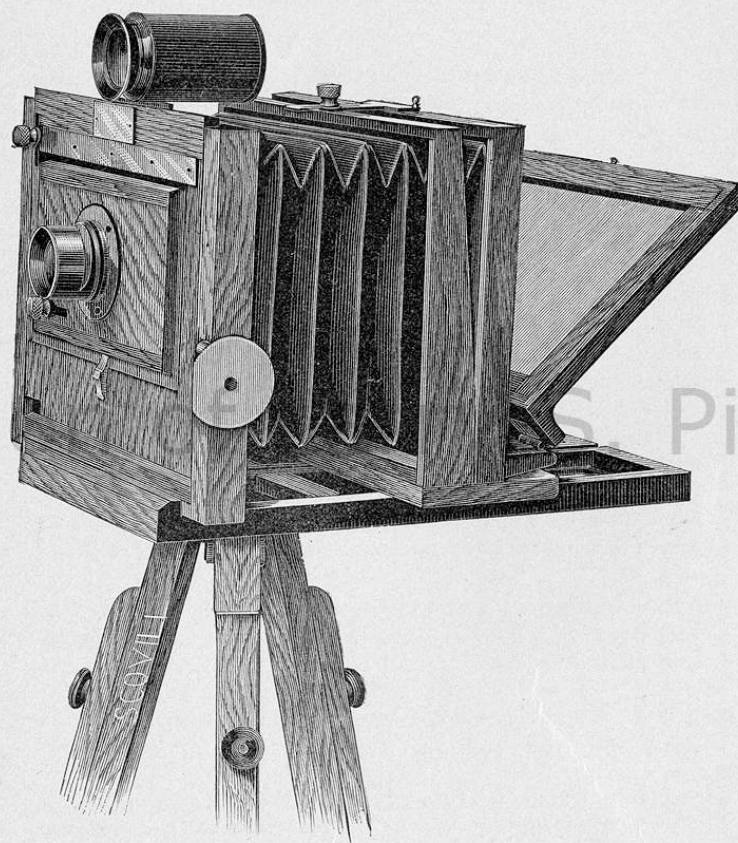
A few author's copies, bound in white leatherette, gilt lettering, and printed upon laid paper, each \$2.50.

For sale by all dealers, and by the publishers,

SCOVILL MANUFACTURING COMPANY.

Wilson's Photographic Publications.

- | | Price,
Per Copy. |
|--|---------------------|
| WILSON'S PHOTOGRAPHICS.—By EDWARD L. WILSON, Ph.D. The newest and most complete photographic lesson-book. Covers every department. 352 pages. Finely illustrated..... | 4 00 |
| WILSON'S QUARTER CENTURY IN PHOTOGRAPHY.—By EDWARD L. WILSON, Ph.D. "The best of everything boiled out from all sources." Profusely illustrated, substantially bound..... | 4 00 |
| THE PROGRESS OF PHOTOGRAPHY SINCE THE YEAR 1879.—By DR. H. W. VOGEL, Professor and Teacher of Photography and Spectrum Analysis at the Imperial Technical High School in Berlin. Translated from the German by Ellerslie Wallace, Jr., M. D. Revised by Edward L. Wilson, Editor of the <i>Philadelphia Photographer</i> . A review of the more important discoveries in Photography and Photographic Chemistry within the last four years, with special consideration of Emulsion Photography and an additional chapter on Photography for Amateurs. Intended also as a supplement to the Third Edition of the Handbook of Photography. Embellished with a full-page electric-light portrait by Kurtz, and seventy-two wood cuts..... | 3 00 |
| PHOTOGRAPHERS' POCKET REFERENCE BOOK.—By Dr. H. W. VOGEL. For the dark room. It meets a want filled by no other book. Full of formulas—short, practical and plain..... | 1 50 |
| PICTORIAL EFFECT IN PHOTOGRAPHY.—By H. P. ROBINSON. For the art photographer. Cloth, \$1.50; paper cover..... | 1 00 |
| WILSON'S LANTERN JOURNEYS.—By EDWARD L. WILSON, Ph.D. In two volumes. For the Lantern Exhibitor. Gives incidents and facts in entertaining style of about 2,000 places and things, including 200 of the Centennial Exhibition. Per volume..... | 2 00 |
| THE PHOTOGRAPHIC COLORISTS' GUIDE.—By JOHN L. GIBON. The newest and best work on painting photographs; Cloth..... | 1 50 |
| PHOTOGRAPHIC MOSAICS. Published annually. Cloth bound, \$1.00; Paper cover..... | 50 |
| PHILADELPHIA PHOTOGRAPHER.—PUBLISHED SEMI-MONTHLY. Illustrated. Per year, \$5.00; with weekly PHOTOGRAPHIC TIMES..... | 6 50 |



'76 Camera, with Morrison Lens and Waterbury View Finder.

.....188.

SCOVILL M'F'G CO., Publishers:

Please send copy of the issue of

THE PHOTOGRAPHIC TIMES AND AMERICAN PHOTOGRAPHER,

commencing with 188 for
to my address:

Name,

P. O.

County,

State,

NOTE.—Please specify whether Weekly or Monthly edition is desired.

LP921

ISSUED EVERY FRIDAY.
Monthly Edition Issued the Last Friday in the Month.

The Photographic Times



And AMERICAN PHOTOGRAPHER.

A SPECIMEN COPY FREE.

SUBSCRIPTIONS.

One Copy Weekly issue, postage included, to all points in U. S. or Canada	\$3.00
One Copy Monthly issue, postage included, to all points in U. S. or Canada	2.00
Weekly issue to foreign addresses (postage included)	4.00
Monthly issue to foreign addresses (postage included)	3.00
Single Copy, Weekly	10
Monthly	25

ADVERTISING RATES.

Size of advertising pages, 6 1/4 x 9 1/4 inches; outside size, 8 1/4 x 11 1/4 inches.
 Cards, 2 1/4 x 3 inches, per insertion \$2.50
 One page, each insertion, in either Weekly or Monthly edition 20.00
 Half page, per insertion 10.00
 Quarter page, per insertion 5.00
 Discount for term contracts.
Business Notices, not displayed, per line 15

Scovill Mfg. Co., Publishers,
W. IRVING ADAMS, Agent.

Scanned from the collection of Larry S. Pierce