



SECOND EDITION
OF
The Photographer's Friend,
For Gratuitous Circulation,
AND REVISED AND ENLARGED
PRICED CATALOGUE





OF PHOTOGRAPHIC REQUISITES OF SUPERIOR EXCELLENCE,
SUPPLIED AT
The National Photographic Emporium,
No. 46 N. CHARLES STREET,
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RICHARD WALZL, PROPRIETOR.

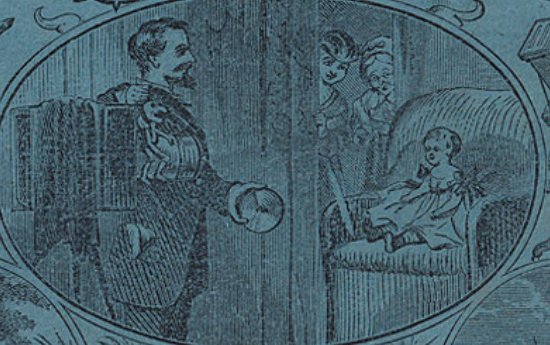

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THE
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PHOTOGRAPHER'S FRIEND






ALMANAC and AMERICAN YEAR BOOK OR PHOTOGRAPHY

FOR

1873

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PUBLISHER.

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Richard Walzl,

No. 46 N. Charles St. Balt^e.



THE
Photographer's Friend

[SECOND EDITION.]

COMPENDIUM OF VALUABLE FORMULAE AND GENERAL INFORMATION

Relating to the Art, with a

REVISED PRICED CATALOGUE

OF
Photographic Materials and Stereoscopic Goods,

Photography for the Trade, Magic Lanterns and Slides, &c., &c.

ISSUED BY

RICHARD WALZL,

46 North Charles Street,

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FREE OF CHARGE
BY
GRATUITOUS CIRCULATION.

BALTIMORE:
JOHN FOX, BOOK, JOB AND POSTER PRINTER.
1872.



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TO THE PUBLIC.

FROM the manner in which the "pioneer" number of "The Photographer's Friend," (issued for gratuitous circulation) was received and appreciated, and as the edition is completely exhausted, and also in consideration of the numerous solicitations still arriving for copies at "any price," the publisher and proprietor, in order to meet the popular demand, has concluded to issue this, the Second Edition. It is a source of real gratification to him to feel, from the hundreds of letters received expressing thanks and admiration of the "Pioneer," that his aim and endeavors to place before the fraternity a Photographic Hand Book of Reference, such as would really prove a true Photographer's friend, has been appreciated and received in the same spirit with which it was issued. The popularity of the work is also convincing proof that his desire to aid the Art in its progressive march, has indeed been pleasantly fulfilled.

Photography continues to advance; and in order to keep pace with its rapid advancement since the first edition of "The Friend," it is deemed expedient to again present the Photographic fraternity with this, the second edition, which, like its predecessor, will be found of value to the practical worker and the amateur. The latest important improvements will be found herein, and a thorough and complete Price List of all things appertaining to the fascinating art of Photography.

THE PHOTOGRAPHER'S FRIEND.

ISSUED BY

RICHARD WALZL, BALTIMORE.

ARTISTIC PHOTOGRAPHY.

You wish to know how to take a picture by the action of light, and I am willing to instruct you; if you obey my advice and follow my instructions you will soon acquire that knowledge. You must not however be too impatient; you must try to understand the reason why the various operations are performed. I wish you to be interested in each stage of the process of taking a photograph, so that you may be able to explain to any intelligent person the various steps as you proceed.

The first important fact I wish to impress on your mind is, that the taking of a photograph consists in a series of delicate chemical experiments. If these are all carefully performed a successful photograph will be produced; but if from carelessness or ignorance any of the intermediate portions are badly executed, the final result will be correspondingly unsuccessful.

You must therefore cultivate the habit of carefully observing all your operations; you must be exact in measuring and weighing your various chemicals, until you have experience enough to know the amount of margin that judgment will permit. You must also be very careful in using only clean vessels to hold the different solutions; the cleanliness that is ordinarily considered sufficient, will rarely do for chemistry.

There are many ways of producing a photograph; yet the particular process I am going to teach you is so much superior, that I shall take no notice of the others. It is called the "Collodion Process," because collodion plays an important part: this substance is a gluti-

nous fluid formed by dissolving gun-cotton in a mixture of ether and alcohol. The photographs taken by the collodion process may be either *Positive* or *Negative*. We shall not be able to make much progress until we have the

APPARATUS AND CHEMICALS NECESSARY.

The first thing is to obtain a set of Apparatus. Beginners too frequently get a common cheap one, and are surrounded with unnecessary difficulties from this cause alone. There is no reason that the apparatus should be very expensive, but each article should be good of its kind. The quantity you will require will depend on the branch to which you devote yourself. Should you wish to be equally well furnished for producing Portraits and Landscapes, a full equipment will be necessary.

It is not well to begin with too small a stock of chemicals, as from your inexperience you will be very apt to spill and waste a quantity at first; and if you reside in a country district you may experience a difficulty in obtaining articles sufficiently pure for your use. As a rule, it is better to buy them of those persons who supply photographic materials, from whom you will obtain them cheaper and better than from local chemists and druggists.

HOW TO BEGIN WORK.

Your apparatus being secured and your room prepared, you are now ready to make a commencement, and your natural desire will doubtless be to make your first attempt in photography by taking a portrait.

But as you are a beginner, you should commence with the easiest thing, and to take a good portrait is one of the most difficult things in photography. The proper proceeding is to set up a plaster cast, engraving, porcelain statuette, or similar still-life object, and practise upon it, being prepared for many failures arising from your ignorance and clumsiness, before you attempt portraiture. You should try picture after picture, noticing carefully the faults you commit in one, so as to avoid them in the next.

In this way, by patience, observation, and practice, you will speedily gain such experience as will make your new occupation a pleasure. Above all things, do not expect to produce good pictures all at once; and be not discouraged with failures, but try to understand why you fail.

In setting up an inanimate object to copy, the risks of failure are less than when you have a person to sit, for it will not move nor alter its expression, nor make remarks if you do not succeed. When brother Tom, or friend Harry is called in, the case will be different; they will be full of fun and jokes, will most likely move at the critical moment, and say disparaging things when they find the picture a failure. All this will confuse you, and cause you to omit things you ought to have done, and do abundance of things you ought not to have done, and dishearten you in your early progress.

You had better, therefore, set up a plaster cast bust—one painted stone-colour will be best—and, using this as a model, work frequently at it until you have sufficient mastery of your instrument and materials to produce; then you may proceed to portraiture.

HOW TO ARRANGE YOUR APPARATUS.

Your plaster bust, or similar object, being placed in a good light—which however should not be too strong, nor too evenly cast in all directions—the endeavour should be to throw a slight shade on one side which will permit the true modelling to be seen.

Now get your portrait lens, and after wiping carefully the surfaces of the glasses with a clean silk handkerchief or chamois leather, screw it on to your portrait camera, and place them both on your heavy camera-stand opposite your object. The ground-glass of your camera should have the sizes of the glass plates marked on it in squares, corresponding to the holders in your dark slide. Place your stand and camera so that the lens is opposite to about the centre of your plaster bust, and move the stand and camera backwards or forwards until the image of the object is of the size, and occupies the place on your ground-glass that you wish the image to do on the plate you are going to use, remarking that the nearer the camera is to the object, the larger the image will be, and *vice versa*. Lay the black velvet focussing-cloth on the camera; put your head under the cloth, and

you will then more clearly see the image on the ground-glass. Slide the inner body of the camera in or out until the image is seen quite distinctly, then fix the camera with the screw provided. While your head is still under the focussing-cloth, pass your hand round to the lens, and move the rack backwards and forwards till you find the point at which it is most distinct.* It is then said to be "in focus," or "sharp," and in this state the camera and object may remain until we have prepared a sensitive plate.

NITRATE OF SILVER SOLUTION FOR NEGATIVES.

Which is made by dissolving 3 oz. nitrate of silver in 30 oz. distilled water. Take from this 1 oz. in a graduate measure, and dissolve 6 grains iodide of potassium. When dissolved, let the yellow precipitate (which is the iodide of silver) settle; then pour off the liquid and add fresh water to the iodide of silver; stir with a glass rod, and when it becomes settled, pour off the water—which operation should be repeated some four times—so as to wash the iodide of silver thoroughly; then, when the last water has been drained off, add the iodide of silver to the remaining 29 oz. silver solution. Shake it well, and stand in the dark for 3 or 4 hours, then filter and add 6 drops chemical pure nitric acid; shake the solution and filter again, and you will have a perfect working Bath. The same proportions should be observed in making larger or smaller quantities of solution.

It is *necessary* to have two Baths, as one gets out of order. You will then have a reserve to replace it, and can apply the proper remedies to the old one at leisure.

The next most important chemical is a good reliable Collodion.—For the benefit of those who do not wish to buy Collodion already made, I will give my formula, which is "*all right*"—you can depend on *it*—if all others fail to give fine results.

COLLODION No. 1.

Take 10 oz., fluid measure, pure 95 per cent. alcohol; pour this in a clean quart bottle, which should be labelled Collodion No. 1; then

* These instructions for adjusting the focus apply to the common camera.—The best kind of camera is provided with an endless screw arrangement, or a rack and pinion, by which the adjustment is made more easily and perfectly.

add 100 grains iodide of ammonium—neg.—(Cooper's make;) shake the alcohol until all the ammonium is dissolved, then add 10 oz., fluid measure, of pure ether, (sulphuric concentrated,) mix with alcohol and iodide by shaking;) then take 50 grains bromide of potassium, and place in a small *clean* mortar, (this mortar should be kept only for this purpose;) add on it 30 drops of water and grind the potassium fine with the pestle; then add it to the alcohol, ether and iodide; after shaking thoroughly, filter into another clean quart bottle—filter through filtering paper—and to prevent evaporation place a glass over the funnel during filtration; after all is filtered add 120 grains gun cotton. In my practice I use sometimes Anthony's Regular Negative Cotton, and at times Cooper's Union Cotton. (Those who have a choice for any other manufacturer's cotton, will find all the reliable ones in the Price List Department.) Shake the Collodion until all the cotton is dissolved, then stand it aside, and prepare

COLLODION No. 2.

Take 10 oz., fluid measure, pure 95 per cent. alcohol, pour in a clean quart bottle, and add 100 grains iodide of ammonium—neg.—shake till dissolved, and then add 50 grains bromide of cadmium; shake again until dissolved; then add 10 oz., fluid measure, of ether, sulphuric concentrated. Shake well and filter as before described; then add 120 grains cotton, of the same make as is used for Collodion No. 1. Mark this bottle No. 2.

For children or dark complexioned persons, use the No. 2 alone, as it works in half the time, but for general work in the gallery or on the field, mix No. 1 and No. 2, half and half, together. I have tried and used all kinds of Collodion in my practice, purchased many receipts from professed knowing ones, and I give this the preference over all others. No. 2 is an excellent stock Collodion, which will keep twice as long as No. 1. The combining of No. 1 and No. 2 gives a beautiful uniform intensity. To new Collodion, if you are in a hurry to use, add 3 drops tincture of iodine to 10 oz. of Collodion; shake it well and filter. After collodion has dissolved cotton, it must be filtered through filtering cotton, saturated with alcohol. There is what is called Collodion filters, which are very useful, and should be found in every well regulated gallery. After having prepared the two

most important chemicals—a good Bath and Collodion—you next want a reliable

DEVELOPING SOLUTION.

Take 32 oz., fluid measure, water, and dissolve 2 oz. double sulphate iron and ammonia; filter, and pour in a wide mouth 8 oz. bottle, 6 oz. of the iron solution, and add thereto 2 oz. acetic acid No. 8. Shake this and it is ready for use. The iron solution keeps better without the acid, therefore I recommend to add acid only to the smaller quantity, as you have occasion to use it. With these all carefully prepared, redeveloping, as a rule, is unnecessary. Still there are many Operators who prefer an intense negative to a delicate one. So in case the negatives want more vigor, make the following

REDEVELOPING SOLUTIONS.

Take 10 oz. distilled water, and add 10 grains pyrogalic acid, and add 15 grains citric acid; shake till dissolved, and mark this bottle No. 1. Then take 10 oz. distilled water, and dissolve 1 oz. nitrate of silver. Mark this bottle No. 2. You will next need a

FIXING SOLUTION.

(For negatives,) which is simply 3 oz. (weight) hypo sulphate of soda dissolved in 10 oz. water. Having all your chemicals carefully prepared, next proceed to

CLEAN GLASSES.

Take a 10x12 deep photographic ware dish, and pour therein 10 oz. commercial nitric acid, 20 oz. water; mix together by stirring it with a glass, immerse the glasses and leave them in over night; when you remove the glass from the acid, wash each plate separately, under running water, with a piece of flannel; then set aside to dry. When thoroughly dry, they will only need a little rubbing over with alcohol and polishing with clean flannel. You can wash and clean enough glasses of different sizes at a time to last several weeks. After they are cleaned as described they are ready for service. Some recommend to albuminize the plates. This I would not advise; it will not make

the glass any cleaner than by the above method. I have seen many elegant negatives ruined by blistering of the albumen film, which could not happen to glasses cleaned as recommended. Now as you can command a clean glass, good bath, collodion, developer, and a first class redeveloper, we shall proceed to action.

It is supposed that your

SKY LIGHT ROOM

Is so situated as to face the North. As this cannot always be so obtained, the glasses in the sky light should be ground or blue frosted. Those about to erect new glass rooms will find a first class plan for its construction in this book.

The Glass Room should present a *neat, clean and cheerful* appearance, and should be provided with one plain woolen back ground, one parlor scene ground, one reflecting screen, coco matting, several good head rests, one or more operating chairs, one child's lounge, one neat table, one curtain, several small figures, a few books, a camera stand, with a first class camera box and lens, and focussing cloth. A few toys should be handy for the amusement of the little ones.

With so inviting a Gallery as is here described, you will be honored with customers, who of course are received politely and shown the various sizes and styles of photographic work in your salesroom. After the style has been decided upon, respectfully ask the name, which is entered on the Register, properly numbered, and to each name you have a number, which is placed on the operator's and retain checks. Your customer is next shown to the dressing room, while you prepare the plate, which is taken in the left hand and dusted with a camel's hair brush. Then flow with collodion, which should be poured from a cometless collodion vial. Allow the collodion to flow over the entire surface of the plate, and drain the surplus back into the vial—keeping the plate in a rocking motion, to prevent ribbing of the film. When the collodion is well set, close the dark room door, uncover the bath solution, place the plate on the dipper, and immerse it *slowly*, but do not stop it until it is covered in the solution. Cover up the bath and proceed to arrange your subject and the camera. After this is done, step into the dark room and remove the plate from the bath to the shield, which is then to take the place of the ground glass; the

slide being slowly drawn out. All being ready, see that the arrangement is all right, then give a gentle intimation to your sitter that you are ready, and quietly remove the cloth from the tube. The time for exposure varies according to the light. All working well, it usually takes from 20 to 30 seconds for a negative, or half that time for a positive. The exposure being made, cover over the tube, slowly put back the slide, and remove the holder to the dark room; at the same time intimate to the sitter that it is not necessary to keep still any longer, and that in a few moments you will be able to say whether the negative is good or not.

After closing the dark room door, remove the plate from the shield, holding it in the left hand; and with the developer in the right hand flow quickly over the whole surface of the plate. As soon as the image makes its appearance, notice closely, and continue the solution on the plate until you can see the drapery and half tones distinctly.—When all has been developed fully, wash the plate well under running water; if it looks intense enough when viewed through transparent light, it can be brought to daylight, and placed in a dish containing the fixing solution for negatives. Should you, however, not be satisfied with the intensity before the plate is taken out of the dark room, redevelop it as follows: Pour into a 1 oz. wide mouth vial enough of redeveloping solution No. 1 to cover the plate; pour this off and on the negative several times; then add a few drops of solution No. 2 in the vial, and again pour on and off the plate until the desired intensity is obtained; then wash the plate well and place in the fixing solution. The remaining solution in the vial is thrown away, and the vial washed and cleaned, when it will be ready for the next negative—using always just enough out of the stock bottle No. 1 to flow whatever size plate you may be developing. If the fixing solution is made according to instructions, it will not be long before the negative is fixed. After removing from the dish it is to be thoroughly washed, and set aside to dry. The sitter is then informed that the negative is satisfactory. If a customer desires to see the negative, always show it. While they can judge but little from one, still it gratifies their curiosity. Should a customer desire to see a proof, request a call next morning, when you will have one ready. This plan is always the best. Then, in case any displeasure exists regarding the position, expression, etc., you have only the negative work to do over, and not the waste of time and material on finished pictures.

The negative next requires varnishing. After the varnish is dry, scratch on one side near the edge the number of the negative and the number of prints wanted.

As you have now a good negative, which is the foundation for the production of fine photographs, we will turn our attention to the preparation of solutions, which will give uniform and brilliant prints.—Prepare the

SILVER SOLUTION FOR ALBUMEN PAPER,

As follows: To 24 oz. distilled water add 2 oz. nitrate of silver; when dissolved, take from this 4 oz. in a graduate measure, and add liquid of ammonia, a few drops at a time. At first it will turn brown and muddy looking. Continue to add the ammonia until it becomes clear, then pour it back to the 20 oz. solution, which will turn brown. Now add to this, drop by drop, of chemical pure nitric acid, until the solution becomes clear again. To facilitate the action, shake the solution slightly immediately after the acid is added. When clear, add 2 oz. 95 per cent. alcohol; filter, and it is ready for use. Next wash carefully the silver dish, pour in the solution and float the albumenized side of the paper in sheets as large as the dish will allow; (see remarks on *Silvering Albumen Paper*;) after the paper is thoroughly dry, (it is understood that silvering and drying is to be done in a dark room,) it is ready for the fuming box, which is arranged by placing at the bottom of a tight box a saucer, and then pin the paper inside the box, so that the vapors of ammonia can freely pass between the sheets; then, when all the paper is perfectly adjusted, pour in the saucer at the bottom, from a $\frac{1}{2}$ to 2 oz. liquid of ammonia, according to the number of sheets there are to fume; shut the box tight; let the paper remain therein some ten minutes, then remove, and it is ready for Printing.

This fuming box must be outside the chemical and silvering rooms; best to keep it near a window, so that the surplus fume will not mix with your manipulations in the adjoining rooms. After the paper is fumed for the day's printing, the ammonia in the saucer is thrown away, and a fresh supply taken from the stock bottle for each day's fuming.

PRINTING THE PHOTOGRAPHS.

Cut the paper in sizes to suit the negatives; dust the face of the negative, and clean the back; then place it in the printing frame, varnished side up; place on it the silvered side of the paper, and close the back of the press. See that the contact is perfect before exposing to the light. When examining the prints, do not let too much light fall on the part exposed during such examination. Make the prints about two shades darker than they should be when finished, as in the subsequent operations they will come out about right. As soon as sufficiently dark, remove the print from the frame and place in a box excluded from light. Print from this, and any other negative you may have, the number required. When finished, place the prints in a dish of *clean* water—this operation should be done in a diffused light—and profuse washing is necessary to remove all free silver from the prints. A running stream is best, but as this cannot always be had, four or five changes of water, at least, are necessary, and each time a larger quantity. After this washing,

TONING THE PRINTS

Is next in order; great care in toning should be exercised, as much of the appearance of the finished Photographs depends on this manipulation. Dissolve 15 grains chloride of gold in 10 oz. water; add 5 grains bi-carbonate of soda; shake the solution and label the bottle gold solution. Then make the toning solution as follows: Dissolve in 16 oz. water, 30 grains table salt, 30 grains acetate of soda, and 1 oz. of the gold solution; pour this in the toning dish, and place in the prints, one by one, till some two dozen prints are in toning; then keep them in constant motion by picking up the bottom ones and laying them on top, so they will tone evenly, and that the solution may pass through them equally in every way; for if one print should stick to the other, an uneven tone would be the result. As soon as the prints are toned, place them in a dish of clean water, which should be by your side; place more prints in the toning, till all are thus nicely and carefully toned. If there are

many to tone, say one or two hundred prints, it will be necessary, towards the later ones, to add a little more of the gold solution; this must be done while there are no prints in the toning solution; mix well, and it will be ready to receive more prints. When all are toned and in the water, wash them in several changes of water, filter the toning back in the bottle, stand in its place, wash out the toning dish and put it in its place. The toning solution is good, as long as there is any left, by adding for each day's prints a few grains of salt, acetate of soda, and gold solution, in quantity according to the number of prints to tone. When the solution gets reduced, make new as before described, and add to the old. It is best to have the toning solution slightly warm during toning; it works more rapid, requires much less gold, and gives richer tones. Those desiring a dark tone will leave the prints in the solution until they are of a purple hue; if the prints are to be of a warm brown tone, remove them from the toning when of that appearance.

FIXING SOLUTION.

Dissolve 4 oz. hypo sulphate of soda in 20 oz. water, and add 1 oz. bi-carbonate of soda; pour this in the fixing dish, place the toned prints from the water in this solution, one by one, until all are in; then keep them in constant motion by pulling up the bottom ones and placing them on top, covering each print with solution before placing another on top of it. To judge when the prints are fixed, hold them up to the light, and when they appear perfectly clear and transparent, remove them to the water dish. The time to fix prints varies from 15 to 30 minutes. After having all the prints transferred to clear water, the fixing solution is thrown away, and for every day's work a new fixing solution is made. Never use this solution a second time.— Wash out the fixing dish, stand in its place, and turn your attention to the washing out the hyposulphate from the prints; to accomplish this successfully, a stream of running water should have play on them for several hours, but as some may not have the desired water facilities, the prints should be placed in a dish of fresh water, and the water changed about every half hour, continuing this for three or four hours. After the prints have been thoroughly washed, hang them up to dry, for which purpose use clothes-snaps, which are fas-

tened to a line. If the prints are large, use two snaps; the small size prints may be laid on clean sheets of brown paper, face up. When dry, assort the sizes, and proceed to trim them; lay the prints on a glass sheet, have the desired glass cutters, which are placed on the print, have the picture straight all around; then with a sharp penknife cut the edges outside the glass cutter. Large sizes are first marked oval or square, as may be wished, by laying a matt and running a pencil mark around the opening of the matt, and then cutting carefully with sharp shears, following the pencil mark; brass matts are also used which are laid on the picture and cut around the opening of the matt with a sharp penknife, pressing on the matt with the left hand to prevent it from slipping out of its position. After all the prints are neatly trimmed, they are next to be mounted. There being such a large variety of card mounts, I cannot recommend any particular styles; in my establishment I use the 4 ply round cornered rose tinted plain card mounts, which come only in Carte and Imperial sizes. The larger prints we mount on oval card boards, using the white for full prints, and the buff or grey colored for vignettes.—There are also many substances recommended for mounting the prints. As I have used successfully the gum arabic, I have never tried any other paste; Photographs mounted with gum arabic some years ago, are to-day as pure in the whites as when first made; this gives me confidence in the paste, which I prepare as follows: Take a 1 lb. wide mouth bottle and dissolve therein 4 oz. gum arabic in 8 oz. water, cut a stick to stir it with occasionally, when the gum is dissolved, and before using, strain it through muslin into a clean collodion vial; when about to use, pour from this into a clean saucer as is wanted, and with a paste brush apply it to the backs of the Photographs; carefully lay them on the cards so that they come in neatly between the lines or around the oval; when they are straight, rub them down with a piece of clean white muslin, wrapped around the forefinger of the right hand. Should any gum get on the face of the picture in pasting, remove it by slightly wetting the end of the muslin and rubbing it off. After the mounting is performed, the pictures are to be assorted. Have the negatives by your side, and place the number of each negative on an envelope, and on the backs of each picture; when the customer presents the retain check, the number to correspond will be on the envelope. This is a simple arrangement,

which saves time and confusion. Next have a suitable place for the negatives, which should be retained for one or two years, in case parties desire duplicate prints. If your customers desire one or more of the pictures colored, and if you do not feel competent to do it satisfactorily, you will notice in the Photographic Department of this book arrangements which will enable you to take in all such orders, and guarantee satisfaction. In large cities, it is now quite general to re-touch the negative, thereby securing prints, which resemble finely India-Inked Photographs. For instructions "*How to Re-touch Negatives*," your attention is called to that article in this book. Photographs from properly re-touched negatives are really fine, and customers willingly pay an extra price for them.

When you desire a finely colored Photograph, either in India Ink, Pastel, Water color or Oil, you will have to make the prints on plain paper; also, copies which usually require some Artist's work to make them saleable, should be printed on plain paper, for the Artists prefer to color on plain paper. Please see article on *Plain Paper Printing* in this book.

REMARKS.—The Bath, from constant use, will become charged or filled with Alcohol and Ether from the Collodion, which will show itself in this way: when you attempt to develop your plate the developer will not flow evenly, but will crawl (so to express it) over the plate like oil and water together, or like a developer that has not sufficient acid in it. To remedy this, and also to get rid of a *surplus of iodide of silver* in the Bath, which also comes from Collodion, and which causes the negatives to be filled with little pin holes, add as much pure soft water as you have solution, say reduce it to about 25 grains strong; shake well; stand in the sunlight for 24 hours, then filter and boil down one-half. Alter it has cooled, test it, and if too strong, add water until you get it to 50 grains; or if too weak, add silver till the required strength is obtained; filter clean, through new filtering paper, and you will have a bath better than new—needs no idozing or acid—it is just right to produce excellent results. For a number of years I have treated all my baths in this manner, and have tried all other modes recommended, but find none equal to this simple and reliable process.

If your negative is *streaky*, add a few drops C. P. nitric acid to bath; if not intense, and pictures look like an ambrotype, the bath is

too acid; add a few grains of bi-carbonate of soda; shake and filter, but never use *this* filter again. Also, if negative is foggy, or looks muddy and dirty, a few drops of nitric acid will often remedy this. By practice you can tell from the smell of a bath when it wants boiling down, as it will smell of alcohol and ether, or have rather a musty smell. The bath should be 50 grains strong in cold weather, and 40 grains in warm weather. The chemical and operating rooms should be kept at a temperature of about 70°. When a bath fails to give good results after it has been reduced and boiled as described, reduce it into chloride of silver and send it to the refiner, for this is better than to waste more time on it.

If the plate has a thin blueish appearance when you take it from the bath, the bath is too strong for the collodion, in which case it should be weakened; this, however, will not be necessary if you work according to instructions in the preceding pages, for you will find all the chemicals to harmonize so as to produce negatives of uniform intensity without the least uncertainty.

In evidence of the practicability of the formula, &c., we have used, the photograph made by the formula in question as in illustration. It is not claimed to be a wonderful result, but is simply a specimen of our every day productions, and a proof that the process given is capable of producing practical results, and one that may be relied upon.

ON FERROTYPING.

BY E. M. ESTABROOKE.

In compliance with your request that I should furnish for publication in your appropriately named Photographic journal, *The Photographer's Friend*, some of the results of an extended experience in Positive Photography, I have the pleasure to hand herewith my experience in that branch of the art, and trust it will prove of benefit to those who have not that advantage which I enjoy in the way of obtaining the latest and best processes, new ideas, information and experience, gained by contact with so large a number of aspiring and successful men as are engaged in photography in this great city.

The following formulas will be found, if fairly tried and persistently followed, to afford the careful operator a sure and reliable process, one in which he will find no failures, fogs, or other hindrances. It will produce beautiful chemical effects, delicate gradation of light and shade, and brilliancy of tone.

Hoping as I do by a careful perusal of your forthcoming pages to be very greatly benefitted, I have the less hesitation in giving to the fraternity the "modus operandi" of my Gallery, desiring above all that I may be able to add some little to the general fund of information and experience.

The Ferrotypist has been the popular picture for quite a number of years, and I see no reason why that popularity should decrease, in the demand for this style of pictures, and it becomes the duty of the Ferrotypist to keep up with the requirements of the public.

The success of the Ferrotypist will depend greatly upon his light, his chemicals, and his instruments. The light is of the first importance; after which the chemicals, by which I mean the collodion, the silver bath, and the developing solution. The formula for collodion as here given will be found to work well and quickly, under almost any kind of light:

10 oz. Sulphuric Ether,
10 oz. 95 per cent. Alcohol,
120 grains of Gun Cotton,

Then add—

80 grains Iodide of Ammonia,
40 " Iodide of Cadmium, and
40 " Bromide of Cadmium.

This collodion can be used as soon as it has settled. It makes a strong, smooth film, gives fine gradations of tone and great brilliancy, and should be used with a silver bath of from 45 to 50 grains to the oz. of water.

In making a new bath, take the whole amount of water to be used, and add a few grains of nitrate of silver, and set in the sunlight until it has turned reddish dark, and clear again, being careful to have no acid of any kind in the water when placed in the light. After it has become clear, filter, add the amount of silver necessary, and also, from $\frac{1}{2}$ to 1 grain iodide of potassium, according to amount of baths.

This bath will work satisfactory at first, without acid; after a while

a few drops of nitric acid may be added if necessary; after long use, if your bath coats the plate slowly, and the developer is found to flow unevenly, it will be necessary to boil it, in order to evaporate the ether and alcohol it collects from the plates.

It will be sufficient to boil in a porcelain dish to half the quantity, having first neutralized with carbonate of soda; after boiling, add water to reduce to proper strength, and set in the sun until clear.

If, after constant use, you find a rough grain on the surface of the plate when taken from the bath, as if fine sand had been scattered over it, producing fine black specks over the surface of the developed pictures, it is the result of an excess of iodide in the bath, more than the solution can hold, and is therefore called free iodide; it will be necessary to add fresh silver and water to take it up, or to add water, in order to set free more of the iodide; filter carefully, and then boil to bring to proper strength.

In my experience I have found that if my bath and collodion were first rate, and my developing solution was not right, that I could not get along; but if, on the contrary, I had a good developer, I could make a fair show with a contaminated silver solution and rotten collodion. I have often found that a fog, that I had at first attributed to my bath, then to the camera box, and after that to the much abused and standing scape-goat of all Photographers, I found at last resulted from the developer. I will give an instance in point:

I had a plumber in my dark room who, while engaged in his work, accidentally dropped a small piece of solder into my bottle of developer. About half an hour afterwards I found an appearance of fogging, which became worse and worse in succeeding pictures, until finally the work stopped, and a general overhauling took place, new baths put in use, other collodion tried, pregnant adjunctives, numberless expletives, operators blown up, but all to no purpose, when finally it occurred to my mind to try another bottle of developer, when, presto! all was changed; then came mutual excuses, explanations, congratulations, and all was well. The developing solution, costing less, to be sure, than the other important chemicals, is in most Galleries very wastefully used, when, by developing over a large funnel or tray, and filtering, at least three hundred per cent. might be saved and a better article had. My plan is:

To 64 oz. water, add
4 oz. Proto. of Iron,
4 oz. Acetic Acid,

From 1 to 4 oz. Alcohol, as works best.

Before using, put into your pouring bottle or dish a very small quantity of tannin; this fill up with developing solution; the tannin must be in minute quantity, and in action retards the iron slightly, giving clearer and purer whites, and better definitions.

I have always developed over a large funnel, allowing the solution to filter through into a large bottle.

In using again I take $\frac{3}{4}$ of the old to $\frac{1}{4}$ of the new. I find that by varying the proportion very desirable modifications may be produced in its action on the sensitized plate. I fix it in strong solution of cyanide of potass., which I keep in a bath holder, the same size as my silver bath, thus avoiding the deleterious fumes resulting from evaporation.

Having provided yourself with every thing in the way of the best quality, the operator should always aim in renewing his stock, to get his different articles of the same quality and of the same manufacture, so as to produce a uniform style of work, allowing no change but for the better. I hope that the opinion I have expressed, and the views I have given as strictly my own, will not be considered superfluous.

PRINTING PORCELAIN PICTURES.*

It is preferable in making this beautiful picture to have the plates freshly albumenized. They should therefore be albumenized the evening before you intend to print them. Fresh albumen should be used always. In making use equal quantities of albumen and water, with enough ammonia to give it a strong odor. Dry where it is warm and free from dust. It is well that the plates should have been previously a few hours in nitric acid and well washed afterwards.—

*This article is condensed from an article by Mr. D. Bachrach, Jr. on this subject, which appeared in the P. F.

After having thoroughly shaken the collodio-chloride, which let stand a half hour, coat your plates in a dark room. After thoroughly drying in a warm *dry* room, fume with ammonia five minutes—if the surface appears dull after fuming, a gentle warming over a spirit lamp or stove, with albumen side turned *from* the heat, will reclaim the gloss. It is now ready for printing, which should always be *deeper* than a paper print. After print is made flow over it a little alcohol, then wash under the tap a few minutes, and tone *very little*, and let your toning bath contain but little gold. As soon as toned, place them directly in the hypo solution. If the shadows are very much bronzed, flow over the plate *before* fixing strong aqua ammonia, if it turns red, the hypo will bring it all right. If the print is too dark after fixing, a solution of cyanide, about 10 grains to a pint of water, and in it place the print until light enough. Any good negative which will make acceptable photographs, will also make good porcelains. A little experience with the pictures will prove they are not so difficult to produce as is generally supposed, and that they will be found profitable and another means of stimulating the photographer's business.

A Word to Unsuccessful Photographers.

BY NOD PATTERSON.

THERE are very many excellent photographers who are thoroughly practical in all their photographic manipulations, but whose business qualifications are such that, even with all their photographic abilities—only allow them to eke out a hand-to-mouth livelihood. This is almost saying that to be a first class or good photographer one cannot be a business man, and *vice versa*. In one sense of the word such may be considered as really the case. A live, thorough, energetic photographer—one who loves the art, above dollars and cents, becomes so absorbed, so to speak, that his ideas all centre to the one thing, and he loses sight of his former business energy, and soon forms habits of carelessness which will in time be very detrimental to him. For this reason it is that many of our first class operators trudge along year after year, making just sufficient to procure life's necessities and accum-

ulating nothing—simply because they have not business tact enough to combine with their artistic talents. Knowing it and admitting the fact have many such photographers entered into partnership with men who had the business tact which was necessary to successfully conduct such business. Others again although perfectly aware of the discrepancy in their character, and knowing man's heart is deceitful above all things, still hesitate to change for a condition where they fear they may lose more. We would *not* advise any photographer to enter into copartnership with any one. It would be far better to *shake off* your old ways and resolve to be a man—of business. There are many who if they would, could soon form business habits which would astonish themselves. It will not do to never make the trial, and the sooner it is made the better. A man does not know his nature until he tests it. A stout firm resolution will conquer obstacles of vast dimensions. It will do no good to try to overcome formed habits, and at the same time declare "*well I'll make the trial, but I know I won't accomplish it.*" It is necessary to conduct a photographic business successfully, to have certain rules which will be productive of system.—The more simple the rules the better, so they are faithfully observed. If the head of the establishment fails at times to comply with a rule the others must not be blamed if they follow his example. Courtesy at all times will be essential, and never forget that you are the servant of the public, and as such you must necessarily bear *considerable*. You cannot afford to be very independent or indifferent. Politeness costs you nothing, but availeth much with your customers. At times you will have customers, that will be very *hard* to please, and which perhaps you will consider not worth pleasing, yet we advise you to persevere until the enemy is yours, and in time you will discover it was *policy*. Promise nothing which you cannot fulfil, if you do you will loose your *best* customers. Nothing is so discouraging to your customers as to be continually disappointed. Kindness to children is the key that unlocks the parent's heart. Be tender with and secure pictures of the little ones, even if they are *exceedingly troublesome*, and the friendship of and interest in your behalf, is won from the mother. Treat each and every customer in such a manner that they will give you another call when they wish "any thing in your line." Keep your place neat, clean and inviting, and always have reading matter on your reception room table. Don't expect all your customers to be

thoroughly posted on photography, but hold yourself in readiness to answer many strange (to you) questions *cheerfully*. Change your specimens or show at the door before they begin to fade or get soiled, and do not exhibit other work which you cannot equal. If a dull or rainy day comes, do not sit down and grumble about the weather, but you may find very many things which can be accomplished here and there. Such days are necessary to keep everything in good order.—Under no circumstances make pictures on Sunday. The class of people who “can’t come no other day,” will do you *more harm than good*. *Pay as you go*, make no debts and contract none. If you will follow these suggestions, there need be no further excuse for you to remain plodding along in your old unbusiness like and old fashioned ways.

LANDSCAPE PHOTOGRAPHY.

BY W. T. WILKINSON.

IN spite of all the improvements in the keeping qualities and in the sensitiveness of dry plates, both commercial and home prepared, the wet process is still the favorite *par excellence*; and no wonder, when it is remembered that with dry plates the result cannot be seen at once—in many instances not until the photographer is miles away—and when seen are found in some way or other to fall far short of expectation too late to remedy.

Besides the doubt as to the exposure being right many landscapes look very well in the camera, but when seen in the negative some alteration when compared with the scene suggests itself. In these days nearly all photographers are at times required to take views of interiors of churches, rooms, &c., which are almost impracticable with dry plates. With the wet process perfect negatives of exteriors or interiors can be secured before leaving the scene of operations, the photographer going home with the knowledge that his day’s work is perfect—an assurance that is permanent with dry plates until the development is effected.

Before the introduction of a substratum of albumen, out door photography was a very arduous task, as well on account of the weight of chemicals and water necessary, as also when the weather was hot and the bath acid it was often very difficult to get the requisite intensity without the film either tearing or slipping off the plate. With an albumenised plate this is entirely obviated, as no amount of wetting can loosen a film on such a substratum. It is also very unpleasant to be shut up in a tent washing, intensifying, and fixing a negative—operations which it was almost imperative should be concluded before the plate was in the least dry, or else when again wet the task of properly finishing was very difficult.

In this article I propose to detail how the wet process may be worked in the field and perfect results obtained without the help of intensifier, cyanide, or water for washing, these chemicals being used at home either next day or a week after the picture is developed. The only chemicals required to be taken out are the bath, collodion, and developer.

Albumenising the plate is effected in many ways. The writer uses the following:—Put the plates new or old into a weak mixture of hydrochloric acid and water; rub both sides well with a clean rag, put into clean water, rub them again, and put into fresh water. Then rinse under the tap, drain, and flood with filtered albumen (white of egg one ounce, water twenty ounces, carbolic acid three drops), and stand up to dry with the face towards the wall on a piece of glass inclined towards the side of the table. The superfluous albumen runs away much more readily down the sloped glass than it is soaked up by blotting-paper. When dry the plates are ready for use, and must be stored away in plate-boxes or with a margin of paper between each. An entire sheet of paper must not be put between or it will spoil them.

Any good commercial collodion will do provided it is old enough. To make the nitrate bath take one quart of water, add to it twenty grains of nitrate of silver; then with carbonate of soda or ammonia make it quite alkaline and set it in the sun until perfectly clear; then filter. In five ounces of the water dissolve three and a quarter ounces of nitrate of silver, then drop into it a little of the *collodion iodiser*, drop by drop, until the yellow precipitate is no longer dissolved on agitation. Add the remainder of the water, allow it to stand all night,

filter, and insert a piece of red and a piece of blue litmus paper. If the blue piece be gradually turned red try a plate, and the probabilities are that the bath will be in good order. If it be too acid a few drops of cyanide of potassium, a good shaking, and filtering will set it right. On the other hand, if the red piece be turned blue divide the bath into two parts, and into one part drop nitric acid carefully until the litmus paper shows an acid re-action. Mix the two parts and try a plate, and if it work foggy a drop or two of acid will be all that is required.

The object in making the water alkaline and sunning it previous to adding the bulk of the nitrate of silver is two-fold:—1. To get rid of the organic matter it may contain by the aid of the few grains of silver. 2. To neutralize the acid that the nitrate contains, so avoiding the trouble and waste of neutralizing after it is dissolved.

After a day's work the nitrate bath requires replenishing, to replace the silver taken away by each plate excited in it. The best method of doing this is to add to it a few ounces of a fifty-grain solution of nitrate of silver, either neutral or slightly alkaline. It is important, when strengthening a nitrate bath that is otherwise in good order, not to put into it the crystals of the nitrate unless it has previously been made slightly alkaline, otherwise the acid in the crystals will make the bath too acid. All trouble is obviated by the fifty-grain solution, either neutral or slightly alkaline, according to the quantity, to be added to the bath. When the bath, after many days, "falls sick," merely adding a strong solution will not renovate it; another method must be pursued:—

In the first place, to get rid of the iodide of silver, add the bath to say ten ounces of water, filter, and add permanganate of potash until of a permanent pink colour; then add ammonia until slightly alkaline, filter, and add one ounce of nitrate of silver. Now try with litmus paper, and proceed as before directed when trying a new bath.

The developer is best taken into the field in a concentrated solution, and mixed in such proportions as will suit the particular subject in hand. The following modification of Mr. B. J. Edwards's formula will be found excellent:—

No. 1.

Sulphate of iron.....	1 pound.
Sulphate of iron and ammonia.....	1 "
Sulphate of copper.....	1 ounce.
Water.....	87½ ounces.

Each ounce of water contains 160 grains of iron.

No. 2.

Acetic acid.....	1½ ounce.
Water.....	1 pint.

In the tent is carried an eight-ounce bottle, graduated with a file, to mix the developer in from the above stock solutions. One ounce of No. 1 and seven ounces of No. 2 will give a developer twenty grains to the ounce. One ounce of No. 1 and five and one-third ounces of No. 2 make a thirty-grain solution; and a forty-grain one is made with one ounce of No. 1 and three ounces of No. 2—twenty grains being about an average strength for a general developer, and the other strengths being used as required.

The albumenised plate is dusted, collodionised, sensitised, exposed, and developed in the usual manner. When all the detail is fully developed, as much of No. 2, (the mixture of acetic acid and water) as will cover the plate is poured on, rocked to and fro, and then drained; the negative is then put into a metal plate-box, when it will keep moist for a week. I have kept them longer.

When convenient to finish wash it well, and if all the detail is well out and it only requires a very little strengthening, exposure in the sun will give it the proper density in a few minutes; then well wash and fix. If, however, it require contrast as well as density, the negative can be strengthened with iron or pyro. before or after fixing.

The following intensifier (Mr. Blanchard's formula, I believe) is first-rate:—

Iron.....	1 ounce.
Acetic acid.....	1 "
Citric acid.....	3 drachms.
Water.....	1 pint.

The advantage of iron over pyro. is that it can always be used after fixing without staining or causing a red deposit on the shadows; and, as negatives intensified with it may be done in *daylight*, the risk of spoiling by over-intensifying is obviated. A few ounces of intensifier can be taken into the field, and when the negative is developed mix a little intensifier with a few drops of silver solution, and, *without washing the plate*, proceed to intensify as usual. On completing the intensification cover the plate with the acetic acid and water mixture, and put into the plate-box for fixing at leisure.

In the above directions it will be noticed that no water for washing is required. This has many advantages, amongst which are these:—Water has not to be sought for before a picture can be taken, nor has it to be carried into localities where there is none. Many fine views are abandoned because there is neither no water handy or it is difficult to procure, and in the country the water in some of the brooks, ponds, &c., is not fit for washing negatives, on account of the dirt and animalcula it contains, which speedily spoils the delicate collodion film.

The advantage of reducing the quantity of chemicals, &c., necessary in an out-door equipment is not the only benefit arising; but the negatives are more likely to be first-rate, as at home more time can be given to the task of intensifying, which has then a better chance of being done properly, either by the aid of the sun or with iron or pyro. before or after fixing, just as it is seen which method will give the best result.

A negative well exposed, full of detail, and only requiring a very little strengthening, is best done in the sun. A negative that has been barely sufficiently exposed or developed, wash, then flood with a solution of iodine in iodide of potassium, and in the dark room intensify, as usual, with iron. A negative a little over-exposed, but still rich and full of detail and half-tone, ought to be fixed, and, after well washing, intensify with iron in the day-light, care being taken not to go too far. In strengthening negatives the aim should be to give a chemical, not a visual density.

Intensifying by the aid of the sun and iron gives the film a non-actinic brown colour. Pyro., as a rule, gives a bluish-black image. When it is requisite to take a negative of an interior, or of an object some distance from the tent—in either case when as much as two hours will elapse between the plate leaving the bath and the development—the only precautions to be used to make the plate keep in moist and good condition are, if the collodion shows any signs of stains or markings, to add a little water (say one drop to each ounce of collodion), and an acid bath free from organic matter, neither too strong or too weak. Let the collodion set well after coating the plate before putting into the bath; then keep it moving the whole time in and out, and directly the greasiness has disappeared drain and put into the slide with a pad of wet blotting-paper behind it. It will then keep moist for two or three hours.—*British Journal Almanac.*

ON POSING.

BY ARTHUR J. WAKE.

THE art of arranging a good pose is one, it seems to the writer, not so generally understood or so carefully studied as the importance of the subject entitles it to be. The number of downright bad, or the still greater number of commonplace, poses to be seen on looking through an album, warrants, I think, a few practical remarks on this subject.

The figure of the woman standing front view, one arm straight out, and her claw-like hand grasping the back of a chair, or the man sitting down with a hand on each knee, are still to be met with, though not so common as formerly. There is an improvement, but there might be more. A little study of what constitutes a good and effective pose—of what is to be aimed at and what to be avoided—will no doubt, be useful to many a young operator who finds the posing of the figure in a graceful and effective manner not the least amongst the difficulties of photography.

The idea of the sitter, as a rule, is that if he feel comfortable it is all right. I once saw a gentleman having this impression sit down on a low chair, thrust his hands down to the bottom of his trousers pockets, and stretching his legs out towards to the camera, say that was his idea of a natural position, and he wished to be taken in that way, as he generally sat so at home! On the contrary, if the pose be pretty good, but uncomfortable, the face will probably have that unprepossessing scowl that too often makes our dearest friends look like the inmates of a gaol.

The pose should be both graceful and comfortable. The ladies' dresses have undergone such an improvement since the days of crinoline that they are much better to manage, and fall into much pleasanter shapes of themselves than they did formerly.

The points being to get diversity with harmony in the lines, let us see how this is best to be accomplished. Every one knows that in a front view the face and figure should not be in a straight line, so that if divided down the centre two equal halves are left. But if the figure

be half turned, or profile, they still should not, as a rule, be in a line, the result being a tameness and a want of life, otherwise avoided.— Let us suppose the case of a lady first—as of course, they make the prettiest pictures. The lines of the dress should follow the lines of the figures, and never be in direct opposition to them, and the hair should follow the shape of the head. These two maxims, I am sorry to say, the ladies do not always adhere to; but they are indispensable to good taste in dress and the true in art.

If the lines in the figure are faulty and objectionable they may often be broken and hid by a judicious arrangement of the hands, which may invariably be made of great use in a picture. It is surprising that they are so often discarded, or left, as it were, to take care of themselves. They may be rather difficult to manage, but the effects to be got with them are pleasing in the extreme.

If the body is a little turned one way and the head another, showing the line of the neck that Sir Thomas Lawrence was so fond of, and both hands are introduced, holding the fan in a proper manner, it makes a little composition as well as a portrait. A fan is a very useful adjunct to the studio, and of the uses of a black lace shawl much might be written. To have left out the hands would have been a loss to the picture.

There are no subjects so bad that they are not worth making the best of. One side of a person's face is better than the other. As a rule they are not alike; this should never be forgotten when posing. The dress of the man of the period makes posing him rather a difficult matter. What has been said about the hands of the ladies applies here with still greater force, providing they are not too large; of course they should be kept as near the body as possible, to keep down the size.

How to Take a "Rembrandt" Portrait.

N. H. BUSEY.

IN a Rembrandt picture the light is thrown on the subject in such a manner as, when it is a profile picture, to throw very strong light on the front of the face, while the rest is left in the shade, and the

background being dark a very brilliant effect is produced; in fact, it is taking a picture from the shaded side, only the light is a little stronger, and the shadows a little heavier, than in the ordinary photograph. Some operators make this picture by side light alone, but there are several objections to this plan. In the first place, the face being turned towards the light, it has too strong a glare in the sitter's eyes; then, the camera has to be pointed towards the light; and, furthermore, the picture wants that roundness which a higher light gives. The best plan is to use a high side light, or a portion of the top light. Place your subject in such a manner that the face will be turned almost directly towards the light; then arrange your reflector (a simple frame 4 x 7, covered with white muslin, will do,) near enough to prevent the shaded side from being too black. Don't use a black background; your ordinary plain background if shaded by running it away from the light, is the best. The background in the picture should be dark enough to make the light on the face appear very brilliant, and yet light enough to show the outline of dark hair and drapery. Practice in this direction is very useful, as it gives the photographer a large idea of effect, and leads him to study more earnestly the effect of light and shade.

The National Photographic Emporium.

THE very important geographical situation of Baltimore, situated as it is, it may properly be claimed, the great head centre of the United States. The extraordinary facilities both by rail and water for communicating with our entire country are not excelled in any city. The numerous ocean steamships, plying between our city and Europe is significant of facts which show the importance of Baltimore as an importing city. Goods can be imported, and delivered with less cost to Baltimore city than any other city in the Union. The very rapid rate at which all kinds of trades are centering to Baltimore, show that the people throughout the country begin to realize that there is a saving of money by dealing and purchasing their stock of goods in Baltimore. Photographers are getting thoroughly aroused as to this fact, and are fast embracing the opportunities offered, which

has heretofore escaped their observation, and are now sending their orders to us, thereby saving time, money, and worry of mind. We are constantly being favored with unsolicited testimonials from our patrons, which are indeed very encouraging to us, and act as a stimulant in trying to merit all the praise so freely bestowed upon us. It has always been our practice to deal with every one in a square, upright manner, and with this basis has our house sprung so rapidly into public favor and become recognized for promptness, reliability fair dealings and reasonable prices. The good reputation heretofore enjoyed, we shall strive still to maintain, and will prove to our friends and patrons that there is no other house in America where their *interest* will be better cared for, or where they can do as well, as with us. In this connection we give a few testimonials, (what our space will allow.)

SUFFOLK, VA.

R. WALZL :

Dear Sir,—The lenses which I received of you, are excellent; I like them extremely well. In fact everything I have had from your house works fine and gives entire satisfaction, besides being twenty per cent. less cost, than from any other house further north, with freight included, for the same kind of goods.

A. D. BROWN.

CINCINNATI, OHIO.

R. WALZL :

Dear Sir,—We have received our stereoscopic goods and return thanks for the splendid selection of views, all of which we find perfect, and of decided interest. The lenses in the scopes are the best we have had from any house. Enclosed please find another order, which fill and forward in your usual prompt style.

J. W. M. & Co.

WAKE COUNTY, N. C.

R. WALZL :

Dear Sir,—The photographic goods ordered from your Emporium are received, correct and in the best condition. I have been working your materials for some time and find them highly satisfactory, giving excellent results. Thanks for kindness and promptness shown me in our dealings.

Respectfully,

W. A. CURTIS,

“One thing in particular I admire in your extensive and invaluable Price Current Department, is the fact of its being devoid of all such fancy traps of absolute worthlessness to the working photographer as are usually puffed up by others. You are the first dealer that I have met that would do to others as he would have them do to him. I am more than satisfied with your goods and manner of doing business. Surely it is no longer a mystery to me why your house is so highly praised by all the fraternity; you deserve success.

H. A. V.

BLANDINSVILLE, ILL.

RICHARD WALZL :

Dear Sir,—My goods have all arrived, and I take pleasure in saying they are entirely satisfactory. The Lenses and apparatus you sent me I must repeat are excellent, and everything in perfect harmony. Please accept my thanks for promptness and good selection. The Friend is at hand and a very acceptable visitor in my new gallery. I think the freight very reasonable (\$12.00 on the order of \$505.00 worth of goods) which is much less than the special discount which you allowed on the order.

Fraternally yours, W. CHENOWETH.

Hundreds are the letters we are in receipt of similar to the one following. They are not limited to any section of the country, but date from every State in the Union.

RICHARD WALZL :

Dear Sir,—I had the pleasure of meeting with an old friend a few days since and he in conversation informed me that he had been dealing with you for several years, and had always received the purest of chemicals, and the very best of materials, with less trouble and cheaper than he did from any other house in the Trade. He advised me to order from you from this time forward. Enclosed find P. O. Money Order and List for Goods with directions.

Yours truly,

W. A. McCOMELL,
Hiawasse, Ga.

STOCKTON, CALIFORNIA.

RICHARD WALZL :

Dear Sir,—Your consignment arrived in good time this day — Everything O. K. and in splendid order; please accept thanks for same. Your assorted sizes and colors, mats, and mounts just fill the bill and are every way worthy of your house. They are the finest lot of materials I ever received.

J. P. SPOONER.

Having furnished numerous Stereopticon outfits to my customers, which have given entire satisfaction, we give the following, being a reply to the largest one furnished :

“I received the lantern all right, and was much pleased with your selection of Views; they all give entire satisfaction and work admirably. It shall be always my pleasure to recommend all I can to your House who may be in want of good materials. I have been working goods and chemicals bought at your House for the last three years, and have never had any trouble with them.”

J. B. GREENWAY, *Alabama.*To R. WALZL, *Baltimore.*MR. RICHARD WALZL, *Baltimore, Md.*

Dear Sir,—Having dealt with you several years ago and receiving perfect satisfaction, I would like to hear from you again.

Comparing your prices with those I pay here in the West, I am inclined to think that I can afford to pay the difference in Express from Baltimore, and then save money besides, also taking into consideration that I know the chemicals I got from you worked better and yielded finer results than from those purchased elsewhere. Please send your latest price list to make up my orders by and oblige

Very truly yours,

A. C. WINN, *Appleton Mo.*

A customer from Mississippi writes—“Mr. R. Walzl, I have to acknowledge the receipt of your favor enclosing amount for chemicals which were lost by the breaking of the bottles during transportation. I would say that I did not mention the loss with any idea that you

would replace it, for it was through the carelessness of our Express Company. Before dealing with your House, we frequently had breakage in goods from Western dealers, who in such cases referred me to the heading of their invoices, whereon it says: ‘No deductions allowed for breakage.’ I therefore appreciate your manner of doing business, and it is to me a real pleasure to deal with an establishment that I can depend on.

A regular customer writes—“I thank you kindly for the many past favors. I have received every order from your House, in the best condition, the goods giving me full satisfaction. Please forward the following in your usual prompt style.”

A *Traveling Artist* writes—“While stopping at Mobile an operator called my attention to your price list, which is considerably more reasonable than I have been paying. I am operating in the South with a tent; have procured my goods from New York, but the distance is so great from here, that I think I can save money and time by buying of you. I was not aware that there was so thriving a Stock House in Baltimore. Please forward the following goods, for which find draft enclosed.”

An Indiana Photographer responds to some O. K. Collodion and other chemicals we sent him—“Your O. K. Collodion is the best I can get or make; it produces excellent results and I shall use it as long as I can get it. Forward the following goods by express.

A North Carolina operator writes—“When last I went to New York and Philadelphia, I tried the market in those cities for Photographic materials, and to my surprise found the charges higher on most goods than I have been paying you; surely Southern operators are benefitted when dealing at your House. I shall do all in my power to help to build up your already flourishing business, for I think it deserves the patronage of all Southern Artists.

A Photographer from the East, who is now traveling in the State of Georgia, writes,—“I have dealt in Boston for the past seven years; when I came South, everywhere your House was recommended me.— Seeing the great saving in distance and freight, I have sent you all my orders, and now acknowledge that the goods and chemicals received from you (over \$600.00 in amount, within the past three months) have given the highest opinion of you and the establishment, and I thank those who have advised me to deal with you. I am kept very busy, and am pleased with the South and its people.

ALLEGHANY STATION, VA.

RICHARD WALZL :

Dear Sir,—The bill of goods are received and give perfect satisfaction, nothing damaged whatever. I shall remain a customer to your house no matter where I may be located.

M. LYNCH.

LENOIR, N. C.

“I received the last box of goods you sent me and found everything all right, as usual. The silver bath you sent me is a perfect joy. I deal with you for the sake of getting the best and purest chemicals, and on account of your honesty and promptness.”

R. S. McDADE.

A customer sends the following :

We'll purchase goods in Baltimore
From Richard Walzl's store,
We've tried them often, always working well,
To artists all this great truth we'll tell.
Be faithful then to honor high,
We'll patronize you 'till we die,
And then to whom the art we give,
Will help your business while you live.

ST. JOHN, NEW BRUNSWICK, CANADA.

Though the freight per Express was considerable more than from Boston, even the goods received are a decided bargain, and it is a plea-

sure to deal with your honorable House all the time, you are so punctual and decidedly straightforward in all your dealings. Where there is such a feeling of true faith in a House, I like to deal with it for the sake of continued acquaintance with such excellent friends, which in these times are few and far between.

J. S. CLIMO.

To the Photographic Fraternity of the United States.

The unprecedented favor with which the Photographer's Friend has been received as a quarterly publication, and in consideration of the earnest solicitations of many of the eminent photographers of the United States and Canadas, we have concluded to issue the Friend for 1873, as a bi-monthly journal. We conclude that, issuing the Friend every other month, we can maintain its practicability and character, as sufficient time is allowed between each issue to insure practical information, which, if it were issued more frequently, could not be accomplished, either to our own satisfaction or that of our readers. As a bi-monthly we will have ample time in which to secure both American and European photographic productions. We know that the fraternity desire practical and reliable information, and such will always be found the contents of the Friend. No endeavors will be spared to continue to merit the praise and support the fraternity has so freely bestowed upon us, and we trust our efforts will be considered worthy of the same general recognition. We intend to make the Friend the journal for the masses, and shall strive to make it a welcome visitor to every studio in this country. The same characteristics which have gained for it such a wide spread popularity will still be continued, and numerous other features added which will result in its being indispensable. The assurance of our many friends who desire to aid us, allow us to promise this. The Friend will always contain the latest practical information from all parts of the world, and each number will contain a handsome photographic production, in every way a suitable photographic study. It will fearlessly expose all humbugs and frauds as heretofore; boldly uphold

the truth at all times, and under all circumstances. In discussing the merits of any improvement or anything pertaining to the art, it will be influenced by the *merits alone*. It shall always be so conducted that it shall *indeed* be what its title indicates, the "*Photographer's Friend*." All must recognize the extraordinary excellent facilities with which we are surrounded for keeping the photographer informed. Our sources for deriving information are excellent. Our large wholesale department, brings us all novelties, &c., as soon as in the market. Our excellent studio affords us an opportunity of knowing from actual practical experiment whether all the numerous processes, dodges, &c., are worthy, or will secure certain results claimed, or not. We are in constant correspondence with prominent photographers throughout the world, together with all the photographic journals published in any country, which we regularly receive, affording us opportunities for securing valuable and practical information, second to no other kindred establishment anywhere. To those who admire and appreciate real practical photographic literature, we do not hesitate to state we are confident that they will find the Photographer's Friend indispensable and just suited to their wants. The Friend will commence its third year of publication with more brilliant prospects than ever, having perfect confidence in the intelligence of the fraternity to recognize it claims as their champion, and standard bearer of practical information. We have, we trust, ample evidence that our efforts in behalf of photography and photographers is fully appreciated, and that we will be sustained and patronized as our merits may deserve.

Among the new features we may mention, will be the discontinuance of the Price List, which will make the book purely a Photographic Journal in *all* respects. During the first two years of its existence, while it was being established and introduced, the proprietor embraced the excellent opportunity offered to insert a price list of his stock, which in a measure, assisted towards compensating him for the great expense involved in conducting and establishing a journal. This, however, did not in any way interfere with the reading department of the journal, which was always kept entirely free from advertisements of any kind. Now that the *Friend* is permanently established, and is being acknowledged throughout the land as a *legitimate* and genuine photographic publication, he is willing to sacrifice the excellent privilege of publishing his price list, and stand an equal chance with all

other business houses in advertising. This, of itself, is sufficient proof that the Friend is established in a most encouraging and successful manner. We trust that each one of our old subscribers will again be with us, and each and every one send a name with theirs. The *more* we are encouraged the harder and better we can labor for the interests of the profession. You cannot afford to be without the Friend. Read the testimonials and admit it, and send your subscriptions immediately and receive a yearly benefit.

OUR TERMS FOR 1873.

Single subscriptions for the year.....\$2.50, invariably in advance.
 " " " six months..\$1.25 " "
 " copies.....50 cents each.

CLUB RATES.

Any photographer forwarding one additional subscription with his own, the two copies will be sent one year for \$4.50. Two, (2) additional subscribers with his own one year, the three for \$6.00.

All clubs of three or over, if sent at the *same time*, \$2 each. After a club of over three has been once sent, additional names may be added by the originator of the club at \$2 each. In forming clubs they need not be confined to any one address, but the Friend will be sent to any address desired. By this plan many may soon obtain enough subscribers to secure their own subscription free.

We are constantly receiving letters such as given below. These *unsolicited* testimonials we have by the hundreds, but we will suffice by giving a few extracts to show what the fraternity think of the *Photographer's Friend*.

EXETER, N. H.

I like the "*Photographers' Friend*," and feel as though I could not get along without it.

WM. H. HOBBS.

STOCKTON, CAL.

The "*Photographer's Friend*" is indeed most correctly named, and is a real treasure. You may send it along as long as you print it, for it fills a want long felt, and has awakened a renewed interest in the art.

REILY & SPOONER.

VIRGINIA CITY, MONTANA TER.

Your journal is the best of its kind ever published.

J. D. MITCHELL.

GENEVA, N. Y.

Enclosed please find subscription to your excellent journal, and believe me to be Yours respectfully,

J. TOWLER.

IOWA CITY, IA.

Shall recommend your P. F. to all our students in preference to any other publication.

J. A. WETHERBY.

MILLYVILLE, N. J.

I have been benefited very much by the "Friend," the past year, and expect to be this.

D. W. CARPENTER.

POTSTOWN, N. Y.

It is the best Photographic "Friend" I have, although I have subscribed for several other Journals.

J. S. LACHMAN.

NORRISTOWN, PA.

I feel convinced that it is to my advantage, as well as to all others engaged in Photography, to subscribe to your Journal.

E. K. BRUNER.

NEW YORK.

I consider it the most practical book of the day.

C. K. BILL.

MONROE, GA.

For the last year I have been manufacturing my collodion and baths after the formula given in the Friend, and everything works splendidly. *Many, many thanks* for your kind suggestions.

MRS. C. J. EDWARDS.

JACKSON, TENN.

I know of no Periodical of more practical value than *The Friend*, and shall keep them on file as long as you publish them.

J. L. LAMPLEY.

NEW ORLEANS.

Please continue my name on your roll of subscribers, I cannot afford to be without the best Friend of Photographers.

A. DALIET.

MCKINNEY, TEXAS.

On no account would I be without the P. F. Every photographer should have it.

DR. J. HARMAN.

COLUMBIA, S. C.

We think it one of the cheapest and best journals published to aid us in our Art.

WEARN & HIX.

OLEAN, N. Y.

I take all the other journals, and would sooner drop them all than be without the "*Friend*." I would almost as soon think of dispensing with my camera and dark-room as to be without it. All that I am as a Photographer I owe to reading and close observation, and from no source of reading matter have I ever derived the benefit I have from your publication, rightly and justly named "*The Photographer's Friend*." "Long may you wave."

H. L. OSGOOD.

DANBURY, CONN.

"I am more than pleased with it. It is the thing for the practical Photographer."

H. E. COUCH.

MAYFIELD, KY.

I think every Photographer should be supplied with a good Journal and I know of no better one than the *Friend*.

J. W. SIMPSON.

GLENN'S FALLS, N. Y.

"I take your Journal, and like it very much as a sensible photographic book, not filled with misty theories."

S. R. STODDARD.

KALAMAZOO, MICH.

I don't think I could add to the value of your magnificent Journal by anything I might say in its praise. Every subscriber I believe fully appreciates its high tone, and noble regard for *Truth*.

H. L. BINGHAM.

CHARLESTON, S. C.

The fact no one can afford to be without the *Photographer's Friend* who desires to keep up with the times. J. F. & F. D. ADAMS.

MADISON, IND.

"The *Photographer's Friend* I consider the best photographic journal published." J. T. APPELGATE.

STREATON, ILL.

There is more practical information contained therein, (the *Friend*) than in any other Journal I ever seen published. S. S. GREGG.

WESTBORO, MASS.

It saves the price of it every month in valuable hints. I do not believe any photographer can afford to be without it. T. N. GATES.

Reader, will you not support a Journal which is recommended by such praise as is given above, and from gentlemen so well known in the profession? January 1st, 1873, the *Friend* will commence its third year of publication, and will be then issued as a Bi-Monthly, appearing on the first of January, March, May, July, September, and November.

Every live photographer, who can appreciate the very best practical photographic publication issued, will consult his own interest and subscribe at once to the *Photographer's Friend*, which the masses now recognize as their Champion in upholding and advocating the interest of the fraternity. The *Friend* works to elevate both photography and photographers. Whatever is of practical value will always find its way in the *Friend*. It is illustrated with photographs made by the most prominent photographers known both in Europe and America. Its contributors are sound *practical photographers*, and everything is written so that it can be readily understood. The *Friend* has a large circulation throughout America and Europe, and we want it to go to every studio, that all may have the benefit of a reliable trustworthy *Friend*. The illustrations alone could not be purchased for the price of the subscription to the book, and each number is well worth the price of a year's subscription. Be wise and secure a *Friend* for 1873, whose visits will aid you and show you how to elevate the art.

Subscribe now, only \$2.50 per annum in advance.

VERY IMPORTANT ANNOUNCEMENT!

SPECIAL DISCOUNTS.

Cheap Freight---Quick Dispatch.

LOWEST PRICES.

Newest and Best Goods

In Great and Choice Varieties.

MONEY SAVED IS MONEY EARNED!

You can Reduce your Freight Bills over Two Hundred per cent the ensuing year!!!

ITEMS WORTHY OF ATTENTION.

The very extensive and continually growing business now being transacted at the great National Emporium, allows of its giving to purchasers the very lowest prices, and in addition to those already reasonable rates, we have decided to make still further reductions on all orders when accompanied with the funds of the following *very important discounts*:

On invoices in amounts from \$ 25 00 to \$100 00— 3 per c. discount.
 " " " " 100 00 to 200 00— 4 " "
 " " " " 200 00 to 1000 00— 5 " "

Besides this, special discount orders, when accompanied with the funds, can be shipped as freight at about three hundred per cent. less than the express would charge if sent through them C. O. D. For instance, the express charges from Baltimore to New Orleans are \$7.00 per 100 lbs., and from Baltimore to St. Louis \$5.00 per 100 lbs., whereas the national route of the Baltimore and Ohio Railroad, all rail, fast freight line, charges for first-class freight from Baltimore to

St. Louis, \$1.00 per 100 lbs.; from Baltimore to New Orleans \$1.93c. per 100 lbs. Here we have a difference of nearly 400 per cent. in the freight alone to points between, or extended proportionate rates are charged. Besides this no collection charges are made if not sent C. O. D. and a discount allowed on orders not C. O. D. Most of the goods ordered by our leading customers during the past year were accompanied by the funds and shipped by freight, either rail or steamer. While this system is of the greatest importance to the buyer, we gain in time, for often, when goods are shipped C. O. D., the office where the money has been paid neglect to remit promptly, keeping the money in some cases 60, 90 and 120 days, requiring repeated dunning to the agent to remit.

It is hoped that most, if not all our patrons, will hereafter remit with their orders. The house keeps you posted as to prices and the amount of the bills can be calculated as close as is necessary. Money can be sent at our risk by draft, check, post office money orders, registered letters, or by express. Goods will be sent either by express or freight, as the consignee may specify.

~~No~~ No discount allowed on C. O. D. bills, as we invariably have to wait some time for the returns, hence cannot give the same discount as we do to those remitting with orders.

~~Positively~~ Positively no agents, drummers, runners or carpet baggers of any kind employed by this establishment; the character of the house, and the extent of its business is such that it does not require nor employ their services, consequently our customers do not pay an additional percentage towards their support, and are not bored to buy what they really do not need.

The facilities for shipment of freight from Baltimore to all parts of the States, Canada and South America, are beyond competition, and it is doubted if there is another Stock House in any country where business is transacted more promptly to the best interest of the patrons, adjusting any losses that may occur in shipment or errors in transit with dispatch. In its present advanced positions, orders are solicited to this thriving Emporium under guarantee of rendering entire satisfaction and punctuality in the filling of them, when addressed to

RICHARD WALZL'S
NATIONAL PHOTOGRAPHIC EMPORIUM,
Baltimore, Md.

STEREOPTICONS.

The great perfection with which glass positives or transparencies have been produced lately, have aroused the public to the importance and value of the magic lantern, or as it is now more properly called, since so many improvements have been added to it, *Stereopticon*, as a medium for properly exhibiting them. Instead of the Lantern being used as a toy for youthful amusement, it has now become an acknowledged instructor so to speak, a popular scientific schoolmaster. The choicest master-pieces of the ancient and modern artists, illustrations of travels, voyages, history and science, scriptural scenes, portraits of eminent persons, are all now brought before the public by the Stereopticon so wonderfully truthful, that we can but imagine we see the real scenes themselves. The great invention of painting these lantern slides with colors which come out in the enlarged picture on the canvas perfectly natural, is a feature which cannot be overestimated. There is no limit to the subjects which may be readily illustrated in such a commendable style that they may be properly classed as genuine works of art.

The Stereopticon administers, however, not only to the pleasure of the eye and the imagination, but may be used to popularize science or to increase our knowledge of the real world.

In the education of youth the value of pictorial representations is known and appreciated as the most efficient mode of fixing ideas in the mind; and the assortments of Views now presented will enable a skillful instructor to illustrate many subjects which have heretofore been supposed impossible to be explained other than orally, and to convey many lessons of vital importance in a most forcible manner; while the fascinating character of the exhibition will give a charm to what would otherwise be considered a "dry lecture."

While the character of the paintings has thus improved and driven out the miserable caricatures formerly to be met with, the optical and

mechanical portions of the apparatus have likewise advanced, so that more perfect effects can be obtained than with the old-fashioned Lanterns, and at the same time with far more convenience and ease to the operator.

Enlightened teachers have already appreciated the advantages of the NEW IMPROVED SCIENTIFIC MAGIC LANTERN, and it is being rapidly introduced into our COLLEGES, ACADEMIES and SCHOOLS, as a necessary educational adjunct. It is also assuming a position as a fashionable and elegant PARLOR ENTERTAINMENT for private families. As an attractive PUBLIC EXHIBITION, it is found, when properly managed, to prove a remunerative and pleasant business, and offers great inducements to a man with moderate capital.

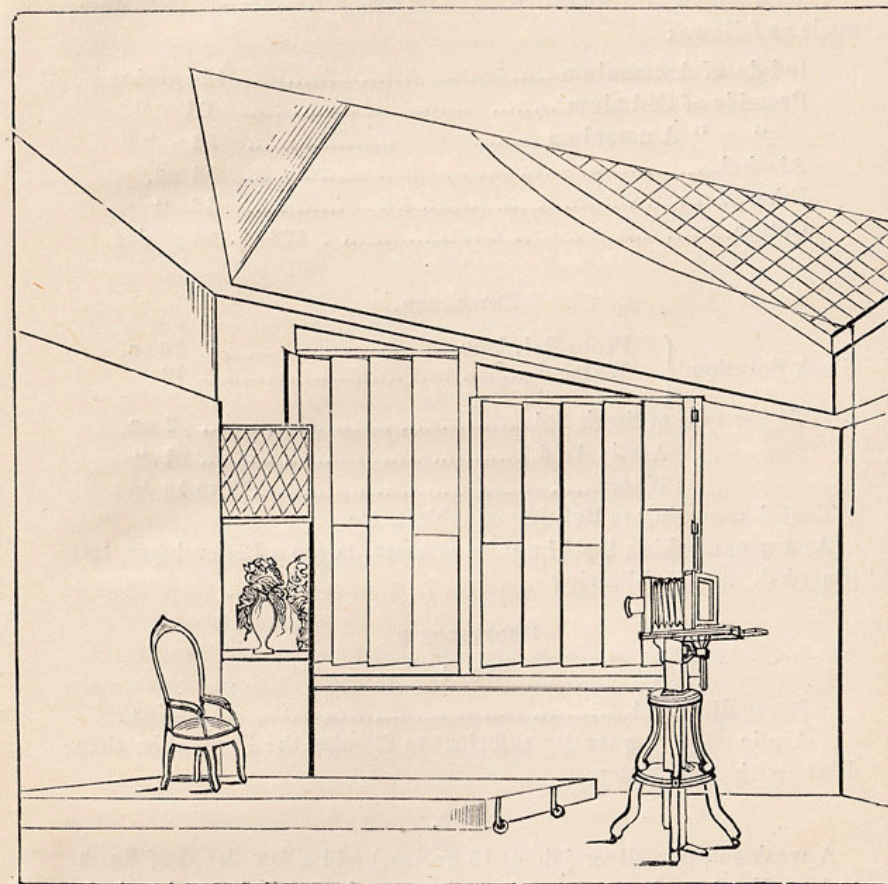
To the photographer does the Stereopticon offer special advantages and inducements, as he can with very little labor produce positives of a local character wherever he may be stationed, which will prove highly popular at his entertainments. All travelling photographers should by all means add this important means of advancing the art he advocates, and also increase his financial resources, to his other resources. We are now importing stereopticons and slides extensively, and parties desiring to purchase a stereopticon and views will do well to consult us, as we know we can send them suitable subjects for any exhibition. Address your next order for these goods to Richard Walzl, Baltimore.

OUR ILLUSTRATION.

As evidence of what can be accomplished with Chemicals and Material from our Emporium, and knowing that seeing is believing, we conclude it is best to give an illustration, so that all may see and judge for themselves. By doing this, we accomplish considerable, which we rather give *positive proof* of, than write about; the Chemicals used and the Lense (A No. 3, 4x4 Voigtlander & Son make; the box was an Imperial Combination Double Swing Back, making two on an 8x10 plate,) all were furnished from Mr. Walzl's Stock Emporium, and are

the same as all his customers are furnished with. Of their reliability, purity, and excellence, the picture is speaking evidence sufficient.

Below we give a cut of



THE SKY-LIGHT OR GLASS ROOM.

This Room is 23x40 feet, papered with a dark wine-colored paper, which avoids reflections. The Sky-Light faces direct North, the side light the North-West. Both white and black Curtains are in use. The dark Room is situated convenient, is 7x12 feet, and well ventilated at both top and bottom. Tree taps or spigotts are arranged for washing negatives, etc.

The negatives are made on albumenized plates, albumenized with the following solution :

1 oz. pure albumen, diluted with 16 oz. pure water.

The Collodion used was R. Walzl's Excelsior Rembrandt Collodion, made as follows :

Iodide of Ammonium.....	160 grains
Bromide of Cadmium.....	64 "
" " Ammonium.....	32 "
Alcohol.....	16 oz.
Ether.....	16 "
Cotton.....	128 to 130 grains.

DEVELOPER.

Stock Solution. {	Proto Sul. Iron	16 oz.
	Water	16 "
To use take of Stock Sol.....	2 oz.	
Acetic Acid	1 "	
Water.....	12 to 16 "	

Varied according to lighting of subject, etc.

As a general thing it will not be necessary to use a Redeveloper, but if needed, use the following

REDEVELOPER.

No. 1.

Pyrogallic Acid..... 15 grains,
Acetic " quantity sufficient to dissolve the Pyrogallic, then dilute with 4 oz. water.

No. 2.

A weak solution silver (about 15 grains,) add a few drops of No. 2 to $\frac{1}{2}$ oz. No. 1, and use as usual on the negatives. Before using it is preferable to let the *negatives dry*, and then wet under the taps before applying the Redeveloper, which results in securing a finer deposit, than without allowing the negatives to dry. The negatives are varnished with R. Walzl's new Excelsior Retouching Varnish. The prints are made on the new Excelsior Brilliant Rose-tinted albumen paper, and toned with the following Toning Solution :

SILVER SOLUTION FOR PAPER.

Forty grains to the ounce of water; to each half gallon solution add $\frac{1}{4}$ ounce of muriatic acid, shake well and filter, then add liq. ammonia until slightly alkaline, filter again, and it is ready for use. Float two minutes and fume ten minutes. Allow the prints to remain in two or three gallons of water, adding $\frac{1}{2}$ ounce or so acetic acid, about five minutes, then wash well, and use the following

TONING SOLUTION.

Acetate Soda.....	120 grains.
Common Table Salt.....	120 "
Water.....	$\frac{1}{2}$ gal.
Gold Solution.....	4 oz.

Tone to a rich brown and use the following

FIXING SOLUTION.

Water.....	1 gal.
Hypo of Soda.....	$\frac{3}{4}$ lb.

Fix 12 minutes or until clear. The usual negative bath was used of 45 grains to the ounce.

The positions and negatives were made under the supervision of our efficient operator Mr. James S. Cummins, a gentleman of considerable practical experience.

The illustration is made from 12 negatives, all different, both in posing and lighting, and will prove a most excellent study for those who desire to improve in artistic productions. We will send the 12 neatly mounted, post paid, to any address for \$2.50. Address,

RICHARD WALZL, *Baltimore.*

SUBSCRIBE TO THE PHOTOGRAPHER'S FRIEND.

SUBSCRIBE WITHOUT DELAY.

Subscribe Now.

Lantern Slides and Hints to Exhibitors.

By C. A. FERNELEY.

DURING the last year or two I have turned my attention to the production of lantern slides, and I hope a few words on the subject may prove useful to some fellow-labourer in this field of photography.

For printing the slides I have a deal box two feet six inches long, ten inches wide, and eleven inches deep, open at both ends with a lid on the top. At the bottom is a groove to take the screw to the camera. At the one end of the box is the carrier with negative, which slips into a groove, each size of negative requiring a different carrier. At the other end is placed the camera, lens, &c.

The lens used is a quick-acting stereo. lens six inches focus, the same lens being used for out-door work. To the camera I have an extra one, so that I can copy either large or small negatives by simply changing the cone and moving the camera nearer or farther from the negative, as required. On the ground glass of the camera, exactly in the centre, is pasted one of the circles used in mounting, by which at a glance I can see the amount of subject embraced in the slide.

In taking the slides the camera is placed in a window towards the north, this light being the steadiest. The exposure varies from seventeen seconds to two minutes, according to the stop, light, &c.

The glass used is thin polished crown, all inferior or scratched plates being rejected. It must be well cleaned with hydrochloric acid and water to rid it of grease, a dirty plate being fatal to a good slide.

The collodion ought to be old; if new be used it will be improved by adding a few drops of tincture of iodine till it becomes the tint of sherry. The film ought to be as free from structure as possible.

Bath.—Thirty grains of silver to the ounce of water, acidified with glacial acetic acid. Enough must be added till perfect transparency is produced in the high lights.

Developer.—

Ammonia-sulphate of iron.....	2 drachms.
Glacial acetic acid.....	3 "
Water.....	1 ounce.
Alcohol.....	<i>Quant. suff.</i>

The amount of acid can be altered according to temperature, &c.

The picture must be well brought out by the developer, well washed, and then fixed in the usual way with cyanide, and again well washed.

The slide remains to be toned, which can be done either when the film is wet or dry; I prefer the latter when I have a number to tone. In the latter case the film must be well wetted before applying the toning solution.

When a purplish-brown tone is required, it is best done by a solution of permanganate of potash—a few drops added to an ounce of water; but a trial or two will show which is the best strength. The other toning solution is—

Chloride of gold.....	1 grain
Distilled water.....	2 ounces.

The gold gives the best tones for ordinary subjects.

By all means avoid the use of mercury. I find some I have had by me a year or two have nearly gone, and that the gold does not make so much more difference in cost where permanency is required. Chloride of platinum is used by some of the leading publishers, but I have not been able to give it a trial as yet.

Varnish with a good positive varnish.

The size of the plate used is the quarter-plate; after varnishing it is cut to the standard size of three and a-quarter inches square, and it only remains to be mounted in the usual way.

My lantern is one with three and a-half inch condensers, and the object-glass a Lerebours' half-plate portrait combination.

The Lamp was made especially for me at the Stella Lamp Depot, Oxford-street. The burner is of the Argand form, one inch diameter. The bottom part of the lamp is about two inches deep and six inches square, with reflector. This lamp will burn either stella or paraffine oil. Great care must be taken in cutting the wick, as the least unevenness will cause the flame to smoke; it is a good thing to let the lamp burn some time before exhibition. Well warm the lenses before exhibiting. Some curtains hung round the screen will improve it.

A public exhibition can be greatly enhanced by asking a few musical friends to sing glees, &c., suitable to the views exhibited, as, for example:—

Glee.—“When the Moon Shines Bright.”

Tentern Abbey, or Holyrood Chapel by moonlight.

Glee.—"Here in Cool Grot."

Swallow Falls, Fairy Glen, Bettws-y Coed.

Part.—"Coronation Anthem," and "God save the Queen."

Westminster Abbey, Coronation Chair, &c., &c.

I find good local views and portraits of neighbors are much enjoyed. For schools, some popular hymns thrown on the screen will be sung with good effect; also zoological subjects, some capital slides of this kind being now easily procurable.—[*British Journal Almanac*, 1872.

Photography for the Trade.

Several years since we discovered the important necessity of adding to our business the proper facilities for copying, enlarging in all its various branches, and coloring Photographs artistically, for the trade. There are very many photographers throughout the country who could readily obtain orders for large work, did their business justify them in employing a first class artist for the purpose; they are often compelled to refuse, or rather turn away such work, and in doing this, they not only lose the work referred to, but all other work which their would-be patrons may subsequently desire. Now there is no reason why any photographer should not receive orders or "large" work, especially when he is confident he can have it finished in the most artistic style, and to the entire satisfaction of his patrons. If photographers were aware how specimens of large productions *elevate* them in the estimation of the public, they would in justice to themselves (which would at the same time greatly increase their profits,) add this branch of work to their business. Those who have introduced large work, starting with a single specimen, are now doing admirably, and their orders are frequent. They also admit that large work has drawn them a class of customers that are liberal in their orders for small work also. These results in our imagination we foresaw from the start. If photographers can therefore secure orders for large work which they can have finished *promptly*, by a competent first class artist, and at reasonable prices, they should solicit such pa-

tronage, which as before remarked will elevate them in public estimation, and they will gradually cease to be considered as petty and insignificant. As there is no need of employing a competent artist, which during the *dull* season would more than counterbalance the profits of a busy one, it will therefore be seen that in many cases this class of work may be made more *profitable* to small galleries than to those who deem themselves able to employ an artist *regularly*. All that is required to secure orders is a sample for exhibition to your customers. Knowing that we can always render satisfaction in this class of work, having secured talent which is specially adapted, we thereby advise photographers to try and introduce large work, and try us and be convinced that it is to their own interest so to do. We could, did space permit, give pages of *unsolicited* testimonials, which our patrons have favored us with. We append a few out of the many hundreds received.

LOUISVILLE, KENTUCKY.

Dear Sir,—The photographs I sent you to be colored reached me promptly. Let me express my unqualified pleasure. No finer or more satisfactory piece of coloring has ever reached my hands. With thanks for your promptness in finishing the same for me, I remain

Yours truly,

H. D. STOWE.

Photographers desiring enlarged copies from pictures, printed and colored, or solar prints either on canvas or paper, should send all such work with full directions to Richard Walzl's Art Emporium. When the work is returned finished it will afford you pleasure and render full satisfaction to your customer. His is the only establishment in America executing such work at prices which allow the *photographer* the profit, and insuring perfect work. All of which is executed by the best artists under his personal supervision.—*Journal*.

BELOIT, WISCONSIN.

The porcelain work reached us promptly, and is entirely satisfactory to us, as well as pleasing our customers. Enclosed find draft, and further orders.

ROLOSON & GRAVES.

ABINGTON, ILLINOIS.

We are highly pleased with the Ink work you done for us, and feel assured that your artists are first class.

W. JOHNSON.

SAYANNAH, GEORGIA.

The oil portrait came duly to hand and is entirely satisfactory; have another to send you in a few days.

J. S. RYAN.

CANTON, OHIO.

The water coloring done for me is the very best I have ever received. I have heretofore patronized the best artists in the west. Do this lot at your earliest convenience, and oblige

A. PRICE.

WATER VALLEY, MISS.

All of the work received has given perfect satisfaction, and most of it even more. We now take an interest in sending our copies for enlarging and coloring to you, feeling sure of pleasing our customers and increasing our business thereby

Yours, &c.,

PEIRCE BRO.

MR. R. WALZL, *Baltimore*.

Dear Sir and Friend,—I inform you that I received the portraits you copied, and must say that the parties were *highly* pleased with them. They all arrived in the best order and gave great satisfaction. I will send some four more small pictures to copy and enlarge in a few days. Those citizens who saw those portraits, praised them very highly.

W. P. LARAMORE, GEORGIA.

R. WALZL, ESQ.

Dear Sir,—The portrait came "all right," in good condition, and gave entire satisfaction. It has been admired by all, and several more orders will be the result. All I can say is, you will hear from me again.

Fraternally yours,

H. F. BELL, VIRGINIA.

MR. R. WALZL.

Dear Sir,—I received the picture of my dear little Maria; her mother is delighted; all whom I have shown it to say it is a perfect likeness. I can only repeat what a gentleman remarked, who was well acquainted with my little daughter: "*Living, looking beautiful, and a perfect likeness of Maria.*" More work will be sent you from this neighborhood.

Respectfully,

JESSE HUGHES, MARYLAND.

MR. RICHARD WALZL.

Dear Sir,—The anxiously looked for picture arrived safely, and I can assure you I could scarcely believe it other than a dream, that I had each lineament of my friend's features so perfectly before me. In short, it was all that I could desire. My friends here thought I would be disappointed, but they all pronounce it a success, and many are preparing to send more work.

Friendly yours,

W. A. KENDALL, TEXAS.

PORT WASHINGTON, OHIO.

The work I sent to you to be copied and colored returned all safe, and the artist's coloring upon them is splendid.

J. QUINN.

Good News.—It will be seen by special notice that a new system of business has been inaugurated by the great National Stock Emporium, which will greatly benefit the consumers of photographic goods and be the means of reducing freight bills. How much better would photographers feel, both in spirit and pocket, if they adopted John Randolph's golden rule—"Pay as you go, and be paid as you go." He would not then be burdened with drafts, annoyed with bills, statements, duns, notes, threats, etc., etc. There are now many photographers, even among those (seemingly) well-to-do, who are daily paying from 25 to 40 per cent. more for their goods and use that which is refused by the cash buyers, simply because they can get a credit of 30 to 60 days, and be worried by the old foggy dealers if they don't pay when time is up. The photograph business is cash, and so should be the stock trade; it will prove better for both buyer and seller.

PHOTOGRAPHIC LITERATURE.

This is a most progressive age, and no live photographer can keep pace with the times unless he keeps himself informed; and to prevent being imposed upon, swindled, &c., he must necessarily subscribe to a photographic journal and read it. There has been numerous instances where photographers have paid from five to ten dollars for some formula or receipt, which was peddled around the country by a sharper, who had taken it from a photographic journal. It is a significant fact that the men who patronize these process pedlars, are those who do not support the literature of their profession. These process pedlars are shrewd, and without asking the question direct they manage to find out whether you take a photographic journal or not; if you do not, they know you are all right. A canvasser once called on a photographer—one of the wise(?) ones, to get him to subscribe to a journal. No, he didn't care about any books, "didn't b'lieve in 'em anyhow, my work is about as good as any of 'em." At the canvasser's request he was shown some of, "as good as any of em" work, which was anything but good, and each card contained a two cent revenue stamp. "Why my friend," asked the canvasser, "do you put these stamps on your pictures?" "Why stranger," said the operator, "you a trying to get scribers to a book on fortography and don't know its the law?" "My dear sir," said the canvasser, smiling, "that law was repealed two years ago." "What," replied the operator, with Rip Van Winkle astonishment, "I never was informed of the fact, you're gassing 'aint you?" "Oh no, such is really the case; through the influence of the reading photographers the obnoxious law was repealed, as I said, over two years ago." Why, the stamps I hev put on pictures since the law has caved in, would amount to a big pile, I tell you." "So it would. You have paid enough, doubtless, to pay for a journal for your lifetime, when a year's subscription would have saved you many a dollar, and kept you posted on many things, which, allow me to say, you ought to have known." This, reader, is no fancy sketch, but really occurred, and there is doubtless many more could be brought to light of a like nature did not shame and mortification prevent parties concerned from making public the same.

Every photographer throughout the land should subscribe to a journal, and should subscribe to the most practical, and that which will prove of the most aid and benefit to him. "*The Photographer's Friend*" has the established reputation of being the most practical, complete and elegantly illustrated, handsomest arranged and finished photographic journal before the world. No expense is spared, when the same will prove of benefit to its readers, or further the interest in the advancement of the art it advocates. It has received the highest encomiums of the Press everywhere. The contents are always of the most choice practical nature. All photographic novelties and improvements will be thoroughly elucidated, and the photographic illustrations of the finest character from the most eminent photographic artists in this country and Europe, and each one will be an excellent photographic study. The "*Friend*" is issued bi-monthly as follows: January, March, May, July, September, and November.

The subscription price is \$2 50 per annum (in advance.)

" " \$1 25 for 6 months "

Single copies 50 cents each.

All subscriptions should be addressed to Richard Walzl, Baltimore. "*The Friend Almanac and American Year Book of Photography*" is an annual publication issued during December of each year. It contains interesting articles on all the various branches of the art, together with many valuable receipts, formula hints &c., &c. It has been universally approved. Price 50 cents per copy.

The Almanac for 1872 (just as valuable as ever) together with the trial set, of four imperial photographs, one each made by Messrs. Sarony, Gurney, Kurtz and Fredericks, for 75 cents, or for fifty cents without the trial set pictures. Remember the almanac contains a fine photography of our worthy President of the N. P. A., and also a sketch of his photographic career. Secure a copy while you can.

"*A Guide to Coloring Photographs Artistically.*"

This is a new book to the American Photographers, and has been received with great favor. It is thoroughly practical, explanations and instructions complete and comprehensive, treatise on art of coloring photographs both in water colors, oil, and also ink, and contains a chapter on How to Retouch Negatives. The Guide is illustrated with a large colored chart. It is in its seventh edition, which is the

best evidence we can offer as to its popularity among the fraternity. Price per copy, post paid, \$1.00.

We also publish a neat little *Brochure*, which contains among numerous other articles a chapter on the history of photography. The object being to give the patrons of photography a knowledge of what is expected from them, and what they can expect from the photographer. It tells them, "Things you ought to Know,"—"When and how to Come,"—"How to Dress,"—"How different colors Photograph,"—"Position,"—"Expression,"—"The Children's Day,"—"Miscellaneous," &c., &c., &c. This book is gotten up in a most elaborate style and has a handsome photograph of the interior of our reception room, or the exterior of the building, and some are illustrated with a handsome study of a lady subject. Any one desiring a copy can secure one by remitting *twenty five cents*, and although the book is copyrighted we will give permission to any *photographer* to use what selections he chooses either for his business cards or to use in circular to his patrons. The price is merely nominal, and with the photograph, is less than cost, yet we are perfectly willing *photographers* should use it, as it is so much to their advantage to do so.

All other photographic books, wherever published, we can furnish at the publisher's prices.

Advice, Hints and Notes.

(From J. Lee Knight's article, entitled "Hash," in our year book.)

Low price is a doubtful merit in any article, and especially suspicious when set forth as the chief recommendation of a photograph.

Equal parts of flour and starch dissolved together in cold water, and then slowly brought to a boiling, make a better mounting than either used alone.

A cracked negative, or one having bubbles in the glass is best printed under ground glass in direct sunlight.

A light wooden box of convenient size, having some strips nailed on the ends for handles, and lined with *sheet lead* makes a capital washing tray, which will neither break, leak, rust nor wear out in any reasonable length of time.

Prints taken from the water, laid face to back, the water well pressed out, and mounted while *wet*, will be cleaner and require a deal less labor in mounting than if allowed to dry. This supposes them to have been *trimmed* before toning, a course which saves both silver and gold.

"Seasonable Hints" from our "Year Book" for 1872.

JANUARY.—It will be found a good plan to set a coal bucket of *red hot coals* in your dark room every morning, having three or four bricks to sit it on. It will take the frost from the atmosphere. A jet of gas turned up bright for half an hour will also tone down the cold. Keep hot bricks near your bath, and have your developer near the fire always, collodion also. See that your plates are of the same temperature as your collodion when coating them.

FEBRUARY.—Examine everything carefully before closing your gallery at night, see that nothing is left in any vessel that will freeze and break it. Warm your toning bath and fixing dishes by the fireside, and you will find toning more agreeable, and will be able to secure finer tones. Good clean snow melted is as good as the best distilled water for bath purposes. Never sit your customers while they are chilly or cold; let them get comfortably warm first—their countenance will become more cheerful.

MARCH.—The wind during this month is sometimes considerable for "high"? so look out for an upsetting of your printing frames, which may fall down on the head of some passer-by, and break the negative. Begin to straighten up for the coming warm weather, and *clear out* the rubbish in the rooms which has accumulated during the winter. See what you need to commence your spring business, and secure it at once.

APRIL.—Keep watch of your printing frames—April showers at times come up right sudden—even when the sun is shining. Some very peculiar and pleasing cloud effects may now be secured. Tie a cloth over your water spicket, the spring rains cause the water to be full of

minute specks of grit and dirt which will make pinholes in your negative.

MAY.—Doubtless this is the best month in the year for taking instantaneous views, as the light is considered the most active and brilliant. In the middle or Southern States it is *the* month to secure good landscape effects; the foliage and leaves being full of sap, render them more transparent than later in the season, consequently, views may be secured with extraordinary excellent detail. If any painting is done in, or around the dark room, see that the bath is *tightly* covered, and, until the paint is dry, keep water in a bucket in the room—which should be changed twice daily, otherwise look out for a fog.

JUNE.—Now is the time to make *leaf* prints before the sap *leaves* the leaves. Select perfect specimens and with a sharp knife trim or shave down the thick branches or fibres of the leaf and print from the wrong or under side, by placing silvered paper on the leaf, which must be placed on a thick glass in a printing frame, and proceed to print as from an ordinary negative, only use *more* pressure. Certain flowers may also be printed from. Secure stereo negatives of flower gardens while they are in their brilliant beauty, and perfection.

JULY.—During the extreme warm weather the chemicals at times work unsatisfactorily and are uncertain in their results. It will be found of advantage to slide a woolen stocking leg over the collodion bottle, which may occasionally be wet with water. If you have running water in your dark room, your bath holder may be placed in a bucket of water. The constant running will keep an even temperature in the bath. Water changed in a tub or bucket several times during the day will answer the same purpose.

AUGUST.—Continue the stocking and bath cooling arrangement. Give your dark room an airing often; keep all bottles well corked that no fumes from any chemical can escape; see that your rooms are kept as cool as possible. Always have plenty of *fans*, papers and books in your reception room; by keeping sufficient attractions you will save money and words, and those in waiting will rest more contented, as they are *patiently* waiting. *Never* keep a clock in your reception room; if you do, keep it *run down*. Have ice water where the visitors can find it without asking for it.

SEPTEMBER.—This month some very pretty foliage views may be secured, as the trees and foliage have now donned their autumnal garb. The days begin to grow perceptively shorter, consequently it will be necessary to keep glass cleaned ahead, and every thing in working order so there will be no necessity for delaying your customers. Don't promise your customers their pictures until you can know they can have them.

OCTOBER.—Cool mornings see that your paper for printing is properly dried. Make a little fire in your reception rooms, just sufficient to take the chill and dampness from the room. Be careful that your negatives when varnishing them are properly heated to prevent chilling. Have your paper silvered early in the morning, and give yourself more time in which to do the toning, you will secure better results by so doing.

NOVEMBER.—Throw out all pictures in your show case that shows any indications of fading, and replace with new and brilliant prints. Begin to get your rooms ready for Christmas times. Do not leave your camera or accessories *under* the sky-light, a heavy fall of snow may break through and injure them; it is in fact best to always remove everything from under the sky-light for fear of storms in the night.

DECEMBER.—During the forepart of this month examine your stock and see what you will need for the approaching holiday trade. Dark and stormy days improve by "brushing up" in a manner to make your rooms look cheerful and inviting. See that you have enough glass cleaned for any emergency which may arise. See that your rooms are kept sufficiently warm. You may consider them warm enough, because you are constantly moving about, but those coming in from the cold like to find a warm room. Give yourself plenty of time in which to complete your work, for the weather is now changeable.

From the Photographer's Friend.

Don't be satisfied that you cannot produce better work until you have tried your sitters in *different places* under your light, studying the effect, then use the best. *Try it*, and learn how to manage your light to its best advantage.

Pose your subjects first, then adjust the head rest to suit the position.

It is policy to please your customers.

FREDERICKS' FORMULAE.—*Negative Bath*—40 grains strong, iodized with iodide of silver, and made slightly acid with nitric acid. *Collodion*—Ether and alcohol, equal parts, $4\frac{1}{2}$ grains iodide ammonium, 2 grains bromide potassium, 6 to 7 grains cotton washed in ammonia; excite the ether and alcohol, then add the cotton.

GURNEYS' FORMULAE.—*Negative Bath*, (same as Fredericks') *Collodion*. Ether and alcohol equal parts, iodide of ammonium 5 grains to the oz., bromide of cadmium $1\frac{1}{2}$ grains; bromide of ammonium $1\frac{1}{4}$ grains; cotton 5 to 7 grains. *Collodion* works best from 10 to 30 days old.

SARONY'S FORMULAE.—*Negative Bath*, same as above.

Collodion.—Ether and alcohol equal parts, iodide of ammonium $4\frac{1}{2}$ grains, bromide of potassium 2 grains, cotton 5 to 7 grains; iodize the ether and alcohol, then add the cotton.

KURTZ'S FORMULAE.—*Negative Bath*, same as above.

Collodion.—Ether and alcohol equal parts, iodide of ammonium 4 grains, iodide of cadmium 2 grains, bromide of potassium 2 grains. It will mature in one or two days suitable for use.

The usual, or common developer is in use at all of the above places. Always purify the water you use for making your baths, (even distilled water,) by putting a few grains of silver in it and exposing to the sunlight.

Keep your filtering paper in a covered box in a dry place, dampness and dust are damaging to it.

It is best to keep your collodion in a dark place, strong light does it no good.

Shut the dark room door when you sweep or dust your skylight. Never sweep your dark room, but wipe it out clean with damp cloths.

To clean Ferro-Plates that look Smoky, Greasy, or Dull.—Heat them over a spirit-lamp, or on a stove, as you dry a plate, and the fogginess will vanish from the face of the plate like the fog or vapor from a cold lamp chimney, when the lamp is lighted.

SELECTED.

Concentrate your attention on the production of a good clean negative; a professional printer may be employed to produce your prints.

Never expect the faults of your negative to be corrected in the printing; a good print can never be produced from a bad negative.

Take pride in cleaning the glasses well; stains and smears always indicate slovenliness and inattention.

Whenever you take a negative, take as good a one as you possibly can, even though it be a bad subject; almost anything looks well in a first-rate photograph; moreover it is excellent practice.

Never be contented with a medium quality of picture if you can obtain a better one. "I dare say it will do!" will not do at all in good photography.

Obtain the most perfect apparatus that your means afford, and take pride in keeping them clean and in good order.

Before using your lenses wipe them with a *soft* chamois leather, and dust out the interior of your camera with a *damp* cloth.

Wipe your dark slide dry after each plate; the accumulation of nitrate of silver at the bottom corners of the dark slide stains the plate, rots the wood, and denotes the careless operator.

Frequently re-varnish the interior of your dark slide where the sensitive plate rests.

Carry your dark slide in a cloth when taking it from place to place (especially out of doors,) and cover the top of the slide with it while the plate is being exposed.

Keep your camera exactly *level* when perpendicular objects are to be represented.

Get all parts of the picture into focus if you can; if you cannot, then make the principal objects the sharpest—in a portrait, the eye; in a group, the central figures; in a landscape, the foreground, in preference to distant objects.

Keep your nitrate bath always covered, and your bottles well corked and stopped, as well as distinctly labelled.

Wash your hands after taking one picture, before commencing another.

Keep a separate vessel for every solution, and a separate bottle and funnel for each distinct purpose. Much time and trouble in cleaning dishes and bottles will be saved, and no end of uncertainty removed.

Never open a bottle of collodion, ether alcohol, or varnish near a flame, as an explosion may take place.

Never allow the sun to shine on the lens when taking a picture.

Never attempt landscapes on windy or misty days.

Of the two errors, under-exposure is worse than over-exposure.

Aim at good pictures rather than quick ones.

Learn one process thoroughly, so as to be able to depend on it; then, and not till then, amuse and instruct yourself by practising others.

Do not attempt any dry-plate process until you are thoroughly master of the wet-plate process.

Use plenty of water everywhere; hypo left in your negatives will cause them to crack; hypo left in your prints will cause them to fade.

Wash your plates well; wash your negatives well; wash your prints well; and wash yourself well.

Ventilation is the soul of health. Ventilate your dark room; ventilate your bath, your camera, your tent, and your ideas.

Read, mark, learn, and inwardly digest the experience of others as exhibited in the Photographic Journals.

Don't be led away by every fresh idea you hear; don't expect to succeed with every new process you read of, but don't condemn it because it fails in your hands.

Don't believe every novelty to be an improvement; don't hastily credit every new discovery; make great allowance for the exaggeration and enthusiasm of inventors, but keep your mind open and unprejudiced to receive every new truth, from whatever quarter it may proceed, or in whatever guise it may appear.

Don't fail to subscribe to the *Photographer's Friend*, in which you will find many hints, which will save you many dollars. Now is the time to subscribe.

Alphabet a la Photographic.

- A. Stands for Apparatus, which all must use,
Whether taking portraits or views.
- B. Stands for Bath, wherein carefully we pass,
The plates made on best B. P. C. glass.
- C. Stands for Collodion, which should always be O. K.
Which will secure good results every day.
- D. Stands for Dipper, to dip with, not to taste,
Also for Dextrine, used in making paste.
- E. Stands for Ether, a fluid quite light,
And Eggshell plates, for Ferrotypes bright.
- F. Stands for Funnels, Filters, and also Frames,
Of which we keep too many to enumerate by names.
- G. Stands for Gold, a metal pure and costly,
Generally used by photographers for toning mostly.
- H. Stands for Hypo, always cheap and good,
And for Hand Rubber, as solid as wood.
- I. Stands for Iodine, Iron, and Iodide too,
Three articles for which no substitute would do.
- J. For Jenny Lind stands, and Rests the same,
Like their namesakes both renowned to fame.
- K. For Kaolin, once the great decoloriser,
But Potash permang'nate's now used by the wiser."
- L. Stands for Lenses -all strive to secure the best,
Voigtlander's make will keep up with the rest.
- M. Stands for Mercury, a chemical much abused,
By young photographers should be carefully used.
- N. Stands for Nitrates, the kinds of which are many,
Silver perhaps, is the most valuable of any.

- O. Stands for Opaque, manufactured by Mr. J. L. Gihon,
Best thing for touching out imperfect negatives ever tried on.
- P. Stands for Potassium, Pyro, and also Paste,
The first named is useful but fatal to taste.
- Q. Stands for "Queer," that R. W. can sell so cheap,
And always keep in stock such a "heap."
- R. Stands for Retouching, for which we have a Frame,
Complete with drawer, and mirror in the same.
- S. Stands for Stereoscopes and Stercopticon, which we keep
Always new, nice, and astonishingly cheap.
- T. Stands for Thermometer, an article quite queer oh!
Sometimes up, at others down near zero.
- U. For Uranium, once a great deal was bought of,
But lately but little used or thought of.
- V. For Views both Stereoscopic and Lantern slides,
Both French and American, and all other kinds besides.
- W. Stands for Walzl, who always keeps in store,
Everything named here, besides many more.
- X. Is for Xcelsior, which is his motto unfurled,
To the popular breeze before the world.
- Y. For Yourself, who should your interest heed,
And purchase from this Emporium, everything you need.
- Z. Stands for Zentmayer, who makes a Lens quite small,
Which with other kinds, R. Walzl keeps them a l.
- P. F. Stands for the Photographer's Friend.
Which all wise photographer's commend,
The Friend will come a shining bright,
Dispelling darkness, and shedding forth light.
Subscribe, subscribe now before it is too late.
Help us all our art to elevate.

WEIGHTS AND MEASURES.

APOTHECARIES' WEIGHT.

SOLID MEASURE.

20 Grains	= 1 Scruple	= 20 Grains.
3 Scruples	= 1 Drachm	= 60 "
8 Drachms	= 1 Ounce	= 480 "
12 Ounces	= 1 Pound	= 5760 "

	FLUID.	Symbol.
60 Minims	= 1 Fluid Drachm	f.
8 Drachms	= 1 Ounce	f.
20 Ounces	= 1 Pint	O
8 Pints	= 1 Gallon	gall.

The above weights are those usually adopted in formulæ.

All Chemicals are usually sold by

AVOIRDUPOIS WEIGHT.

$27\frac{1}{2}$ Grains	= 1 Drachm	= $27\frac{1}{2}$ Grains
16 Drachms	= 1 Ounce	= $437\frac{1}{2}$ "
16 Ounces	= 1 Pound	= 7000 "

Precious Metals are usually sold by

TROY WEIGHT.

24 Grains	= 1 Pennyweight	= 24 Grains.
20 Pennyweights	= 1 Ounce	= 480 "
12 Ounces	= 1 Pound	= 5760 "

Note.—An ounce of *metallic* silver contains 480 grains, but an ounce of *nitrate* of silver contains only $437\frac{1}{2}$ grains.

REVISED

Priced Catalogue

OF

Photographic Materials and Stereoscopic Goods,

Photography for the Trade, Magic Lanterns and Slides, &c., &c.

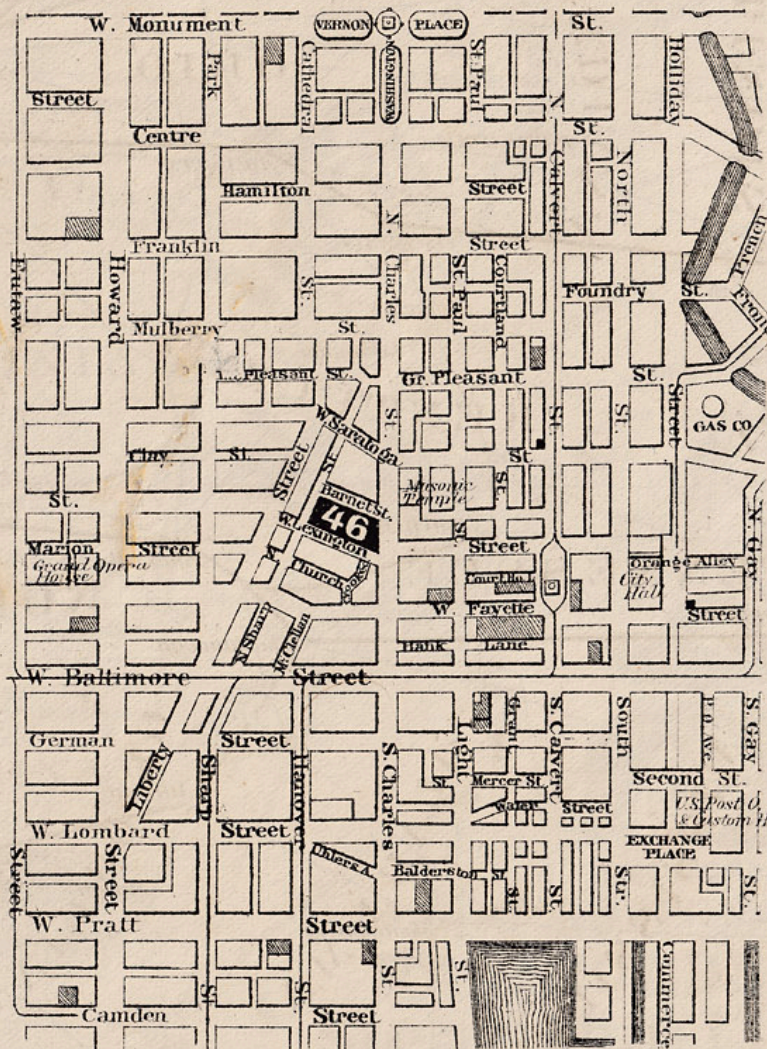
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RICHARD WALZL,

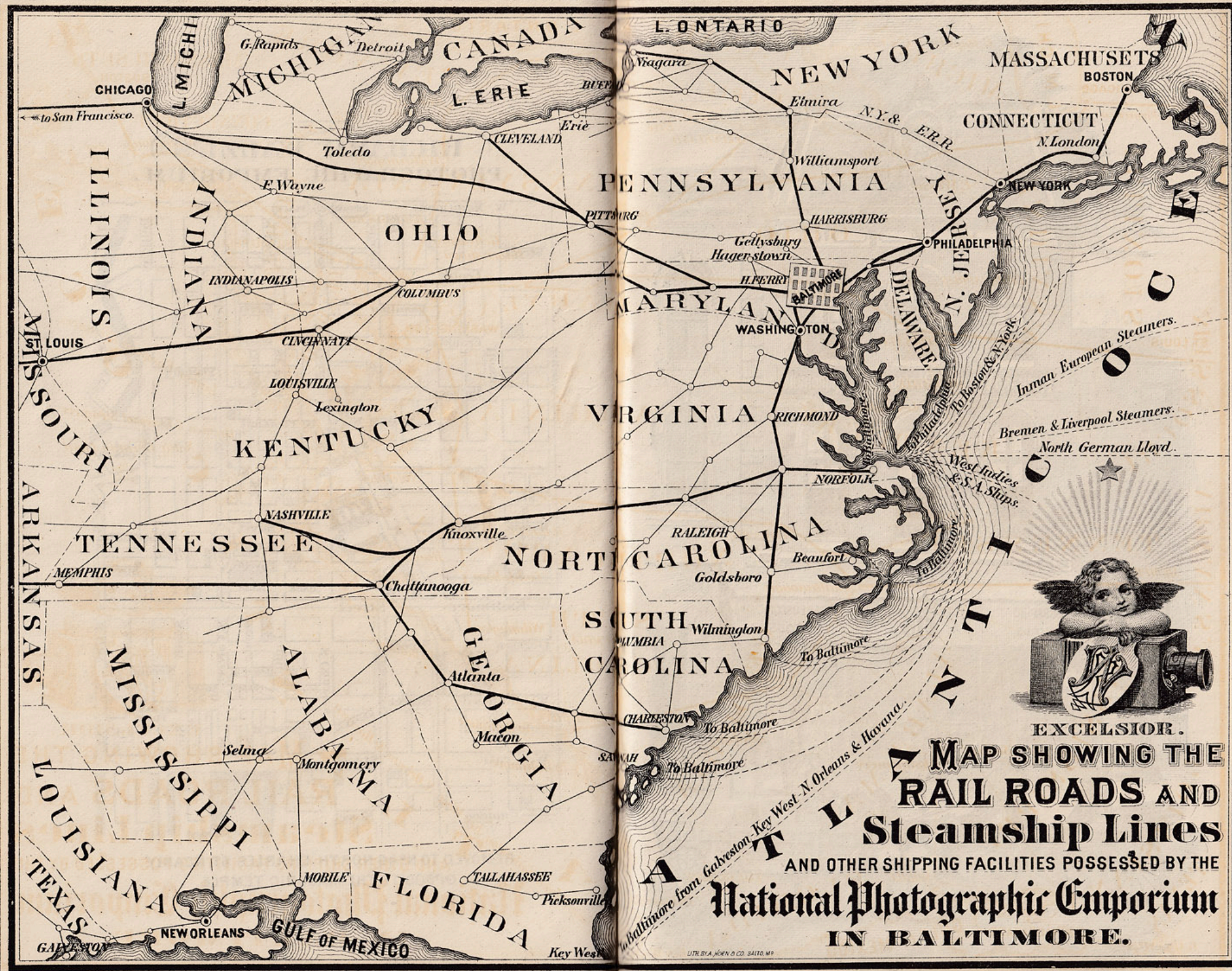
46 North Charles Street,

BALTIMORE, MD.

(RICHARD WALZL'S)
PHOTOGRAPHIC EMPORIUM.



REMOVED TO N° 46 NORTH CHARLES ST. NEARLY
OPPOSITE THE MASONIC TEMPLE.



EXCELSIOR.

**MAP SHOWING THE
RAIL ROADS AND
Steamship Lines**
AND OTHER SHIPPING FACILITIES POSSESSED BY THE
National Photographic Emporium
IN BALTIMORE.

LITH. BY A. JOHNSON & CO. BALTO. MD.



TO THE PHOTOGRAPHIC PUBLIC.

In consequence of the unprecedented favor with which our first edition of the *Photographer's Friend* and Price List, issued for gratuitous circulation, has been received, and as prices on most of the goods and materials have considerably changed, in order to accommodate the numerous patrons of the house, and facilitate its business, we *present* this the *second edition* of the *Photographer's Friend* and Price List, which will be found complete in all respects, giving Prices Current of all Photographic requisites, Frames, Stereoscopes and Views, Magic Lanterns and Slides, Photography for the Trade, etc., etc., etc.

Having recently removed to our new and commodious establishment, we now have all the latest modern improvements and conveniences, which enables us to transact business with the utmost accuracy and dispatch, and being thoroughly acquainted (from actual experience) with the wants of the profession, and devoting personal undivided attention to the same, is a sufficient guarantee of our being able to give entire satisfaction to our patrons.

Importing extensively, direct from Europe, also supplying all the select and useful of American manufac-

ture, our stock will always be found unsurpassed either in excellence or quantity. All instruments sold are tested on our premises, by a practical operator, before being sent out. Our offer of special discounts has proved a feature which the fraternity fully appreciates, and is more popular than ever. All errors and losses which occur through our management are satisfactorily adjusted by us. By observing the map the reader will discover the geographical position of Baltimore is such that our city is much nearer the great West and South, than any of the Northern or Eastern cities, and the extraordinary number of main stem R. R. lines, together with their numerous branches, extending throughout the country, is sufficiently obvious to show the importance of, and advantage to be gained by patronizing this city. By ordering from *us*, you can receive your goods much sooner, and at less freight rates, and even buy the goods at prices *less* than from any other house in this country. A saving of *time* and *money* is of importance in all cases. Buying and selling our goods *exclusively for cash*, enables us always to keep fresh and saleable goods at prices beyond competition. These are facts worthy of consideration, by those who desire to purchase their stock where quick sales and small profits is the motto.

The prices quoted herein, in most cases may be considered permanent, but should there be any material change, either in a reduction or an advance of prices, we shall issue monthly extras in form of circulars, which will be forwarded upon application. This plan

it will be observed, is as much to the interest of our patrons as the house, and will in all instances give them the immediate advantage of any reduction that may be made, and will enable all purchasers to have a perfect understanding as regards prices at time of ordering goods. All previous issues of Price Lists, from and after this date will not be recognized, as, we shall henceforth sell according to prices quoted herein. In this connection we desire to express our most sincere thanks for the very liberal patronage bestowed upon us during the past years, and trust by continued upright and fair dealing, to merit a continuance of the same.

Fraternally yours,

RICHARD WALZL.

Revised Priced Catalogue.

Department A.

LENSES.

Good work must be made with a good lens, as a poor lens will not produce fine results. Therefore it is essential that a good instrument should be secured. There are many different makers' lens in the market, each claiming to be pre-eminent. In fitting up our new studio we thoroughly tested the merits and qualities of the several leading makers' lenses, which resulted in our selecting Voigtlander and Son's as the most preferable in all respects. We do not hesitate to commend them to those desiring strictly fine instruments. We are prepared to furnish any maker's lenses at the manufacturers' prices, deducting from these prices the *special discounts* to those availing themselves of the offer, which will make it of importance for those desiring to purchase by favoring this Emporium with the order. We have every facility for the trial of Lenses directly on the premises

Photographic Lenses for Portraits and Views.

With coincidences of the Visual and Chemical Foci, manufactured by Voigtlander & Son, Vienna, Austria.

The genuine importation is supplied in Baltimore at Richard Walzl's National Emporium.

The great reputation these Lenses enjoy throughout the world renders commendation unnecessary, but we will state a few facts relating to their European celebrity. At the London Exhibition in 1852 they received the *first* medal for

Photographic Lenses. At the Paris Exposition of 1867 a SILVER MEDAL, *no gold one being awarded*, and in the report of the jury they were declared to rank first among all the manufacturers of Lenses. They also received a SILVER MEDAL from the "Society for Encouraging Arts" in Paris. A large GOLD MEDAL from the King of Wurtemberg for Works in Optics; also, GOLD MEDAL from King of Bavaria for Arts and Sciences. They have also received many orders of rank and merit from the different sovereigns of Europe.

We are constantly in receipt of letters from artists, who, after trying all others, pronounce these Lenses the best in use.

PORTRAIT LENSES.

No. 1.	1-4 size.	Consists of a combination of Achromatic Lenses, 1 9-16 and 1 5-8 in. diameter, 4 inch focus, in brass mounting, with rack and pinion movement, with central stops, adapted for taking pictures on plates 4 1-2 x 3 1-4 inches.....	\$35 00
A.	1-3 size.	Consists of a combination of Achromatic Lenses, 1 5-6 and 1 11-12 inch diameter, 4 1-2 inch focus, in brass mounting, with rack and pinion movement, with central stops, adapted for taking pictures on plates 5 1-4 x 4 inches.....	45 00
No. 2	1-2 size.	Consists of a combination of Achromatic Lenses, 1 1-8 and 2 3-16 inch diameter, 5 inch focus, in brass mounting, with rack and pinion movement, with central stops, adapted for taking pictures on plates 5 1 2 x 4 1-4 inches.....	55 00
B.	1-2 size.	Consists of a combination of Achromatic Lenses, 2 1-8 and 2 3-16 inch diameter, 4 1-2 inch focus, in brass mounting, with rack and pinion movement and central stops, adapted for taking pictures on plates 5 1-4 x 4 inches.....	60 00
C.	2 3 size.	Consists of a combination of Achromatic Lenses, 2 3-4 and 2 5-6 inch diameter, 7 inch focus, in brass mounting, with rack and pinion movement and central stops, adapted for taking pictures on plates 7 1-4 x 5 1-2 inches and smaller.....	75 00
D.	2-3 size.	Consists of a combination of Achromatic Lenses, 2 3-4 and 2 5-6 inch diameter, 6 in. focus, in brass mounting, with rack and pinion movement and central stops, adapted for taking pictures on plates 6 1-2 x 5 inches, and smaller.....	80 00
No. 3.	4-1 size.	Consists of a combination of Achromatic Lenses, 3 1-8 and 3 3-16 inch diameter, focus 8 inches, in brass mounting, with rack and pinion movement and central stops, adapted for taking pictures on plates 8 1-2 x 6 1-2 inches and smaller.....	95 00

No. 3b.	4-4 size.	Consists of a combination of Achromatic Lenses, 3 3-16 and 3 1-8 inch diameter, focus 9 1-2 inches, in brass mounting, with rack and pinion movement and central stops, adapted for taking pictures on plates 8 x 10 inches and smaller.....	95 00
No. 3a.	4-4 size.	Consists of a combination of Achromatic Lenses, 3 1-8 and 3 3-16 in. diameter, focus 10 1-2 inches, in brass mounting, with central stops, adapted for taking pictures on plates 8 x 10 inches and smaller.....	85 00
No. 5.	ex. 4-4 size.	Consists of a combination of Achromatic Lenses, 3 3-4 and 3 7-8 inch diameter, focus 9 1-2 inches, in brass mounting, with central stops, adapted for taking pictures on plates 8 x 10 inches and smaller.....	140 00
No. 6.		Consists of a combination of Achromatic Lenses, 4 3-16 and 4 1-4 inch diameter and 11 inch focus, in brass mounting, with central stops, adapted for taking pictures on plates 10 x 12 inches and smaller.....	165 00
No. 7.		Consisting of a combination of Achromatic Lenses, 4 3-16 and 4 1-4 inch diameter and 13 inch focus, in brass mounting, and central stops, adapted for taking pictures on plates 11 x 14 inches and smaller.....	165 00
No. 7a.		Consisting of a combination of Achromatic Lenses 4 3-16 and 4 1-4 inch diameter and 17 inch focus, in brass mounting, and with central stops, adapted for taking pictures on plates 13 x 16 inches and smaller.	165 00
No. 8.		Consists of a combination of Achromatic Lenses, 5 1-4 and 5 7-16 inch diameter, focus 16 inches, in brass mounting, and with central stops, adapted for taking pictures on plates 13 x 16 inches and smaller.....	300 00
No. 8a.		Consists of a combination of Achromatic Lenses, 5 1-4 and 5 7-16 inch diameter, 18 inch focus, in brass mounting, and with central stops, adapted for taking pictures on plates 17 x 20 inches and smaller.....	300 00
No. 9.		Consists of a combination of Achromatic Lenses, 6 1-3 and 6 9-16 inch diameter, 13 inch focus, in brass mounting, and with central stops, adapted for taking pictures on plates 17 x 20 inches and smaller.....	425 00
No. 9a.		Consists of a combination of Achromatic Lenses, of 6 1-3 and 6 9-16 inch diameter, in brass mounting and with central stops, focus 22 inch, adapted for taking pictures on plates 18 x 22 inches and smaller	425 00

The attention of Photographers is directed to the following observations, which may guide them in the selection of Portrait Lenses :

The shortest focus Lenses of same diameter are the quickest working.

All the Portrait Lenses are now so constructed that they can be used for making views, by taking out the back Lens, and screw the front lens in its place, and by using the small stops, fine views can be made.

Lenses No. 1 1-4 and A 1-3 sizes serve principally for small pictures, and are excellently adapted for taking stereoscopic portraits, or views instantaneous, etc.

The No. 2 1-2, C and D 2-3 sizes are used principally for carte de visites and large sizes.

Lens B 1-2, is very desirable for taking portraits of children, as by its great power of light it works very rapidly, even in dull weather.

The 2-3 sizes C and D will be found excellent for making the composition stereoscopic pictures.

The Nos. 3, 3b 4-4 and 5 ex. 4-4 sizes are excellent for the carte de visite (large heads), Victoria, or cabinet cards and larger sized pictures.

No. 6 is a very quick working Lens and only used by the best artists. No. 7 is more generally used.

The Lenses, generally speaking, have much more light on account of their short foci, than other Lenses of the same diameter, therefore work quicker, and, by the application of central stops, larger pictures and greater depth is obtained.

Orthoscopic, View and Copying Lenses.

No. 0.	Consists of a combination of Achromatic Lenses, of 5-8 and 13-32 inch diameter, 4 in. focus in brass mounting, constructed expressly for taking pictures for the stereoscope, furnished in pairs matched expressly for this purpose.....	\$25 00
No. 1.	Consists of a combination of Achromatic Lenses, of 1 9-16 and 5-8 inch diameter, 11 1-2 inch focus in brass mounting, adapted to work on 7 or 10 inch plates.....	27 50
No. 2.	Consists of a combination of Achromatic Lenses, of 2 1-8 and 1 1-8 inch diameter, 15 inch focus in brass mounting, adapted to work on 10 or 14 inch plates.....	40 00
No. 3.	Consists of a combination of Achromatic Lenses, 3 1-8 and 1 3-5 inch diameter, 24 inch focus, in brass mounting, adapted to work on 15 or 20 inch plates.....	70 00
No. 4.	Consists of a combination of Achromatic Lenses, of 4 1-16 and 2 1-8 inch diameter, 32 1-2 inch focus, in brass mounting, adapted to work on 20 or 25 inch plates.....	120 00

OBSERVATIONS.

With regard to the size of pictures given in the above list for the Orthoscopic Lenses, it must be understood that in copying only the smaller size can be made while in taking views the Lens will allow the larger size.

These Orthoscopic Lenses will be found excellently adapted for taking views and copying, possessing at the same time great power of light and great depth of focus, with perfectly straight lines when not larger pictures are made than given in the first. Their power of light is so great even portraits have been taken with them in galleries; for this purpose, however, very sensitive chemicals must be used.

Darlot Photographic Lenses.

Those who are desirous of using a cheaper instrument will find the Darlot's the best cheap instruments in the market. To them were awarded the highest premium—a Silver Medal—for the best Lenses of *French* manufacture, at the great Paris Exposition in 1867.

Darlot Portrait Lenses.

	<i>Plain.</i>	<i>Central Stops.</i>	<i>View Attach't with Cone.</i>
1-4 size.....	\$ 9 00.....	\$11 50.....	\$15 00
1-3 ".....	16 00.....	18 00.....	22 50
1-2 ".....	18 00.....	21 00.....	27 00
2-3 ".....	.....	40 00	.....
4-4 " work on 8x10 plate.....	40 00.....	45 00.....	55 00
8-4 " " " 11x14 ".....	.....	.....	150 00
1-2 " quick worker.....	.....	30 00.....	.....
2-3 " " ".....	.....	43 00.....	.....
4-4 " " ".....	.....	60 00.....	.....

Ferrotypes or Gem Lenses.

WITHOUT RACK AND PINION.

1 1/2 Size, each.....	\$2 50
1-9 " ".....	3 75
1-6 " ".....	5 50
1-4 " ".....	7 00
1-4 " " Central Stops.....	7 50

View Lenses.

1-9	Size, for Stereoscopic Views, per pair.....	\$10 00
1-6	“ “ “ “	13 00
1-4	“ 1-2 plates.....	7 50
1-3	“ 4-4 “	10 00
1-2	“ 10-12 “	11 50
2-3	“ 11-14 “	17 00
4-4	“ 14-18 “	23 00
	Focus Glasses.....	3 00

New Stereoscopic Lenses.

New Stereoscopic Tube and Lens, (imitation Dallmeyer), with rack and pinion, central stops, for portraits or views. Will work in or out of doors. Also, for instantaneous pictures. 4 inch focus, price per pair... \$22 00

Morrison's American Landscape Lenses.

Equal to the best Foreign Lenses.

For Views and Copying, these Lenses are superior to any yet offered to the Photographic public.

They include an angle of *over ninety degrees.*

They have no chemical focus, being *achromatic.* They give a perfectly flat field, straight lines and correct perspective, *with great depth of focus.*

The Stereoscopic Sizes are furnished in matched pairs, and are supplied with Revolving Diaphragms. The larger sizes are furnished with Central Stops.

2 inch Back-Focus, 2½ inch equivalent focus, covering sharply a circle of 4 inches diameter, per pair.....	\$33 00
3 inch Back-Focus, 3½ inch equivalent focus, covering sharply a circle of 6¾ inches diameter, per pair.....	36 00
4 inch Back-Focus, 4½ inch equivalent focus, covering sharply a circle of 8 inches diameter, per pair.....	33 00
4½ inch Back-Focus, 5 inch equivalent focus, covering sharply a circle of 9 inches diameter, per pair.....	33 00
5 inch Back-Focus, 5½ inch equivalent focus, covering sharply a circle of 10 inches diameter, per pair.....	33 00
6 inch Back-Focus, 6¾ inch equivalent focus, covering sharply a circle of 12 inches diameter, each.....	25 00

[This size can be supplied in pairs, if desired.]

8 inch Back-Focus, 8¾ inch equivalent focus, covering sharply a circle of 16 inches diameter, each..	40 00
Single Achromatic Meniscus Lenses, in matched pairs, for stereoscopic views, 6 inch focal length, per pair.....	20 00

Dallmeyer, Ross', Steinheil, Zentmayer and other Lenses in the market furnished to order at Manufacturers' and Importers' prices. Those availing themselves of our special discounts in the buying of Lenses will secure them at the very lowest possible Cash prices. Having every facility for the trial of instruments and apparatus, makes this Emporium pre-eminent for the furnishing of Lenses and outfits.

Condensing Lenses for Solar Cameras.

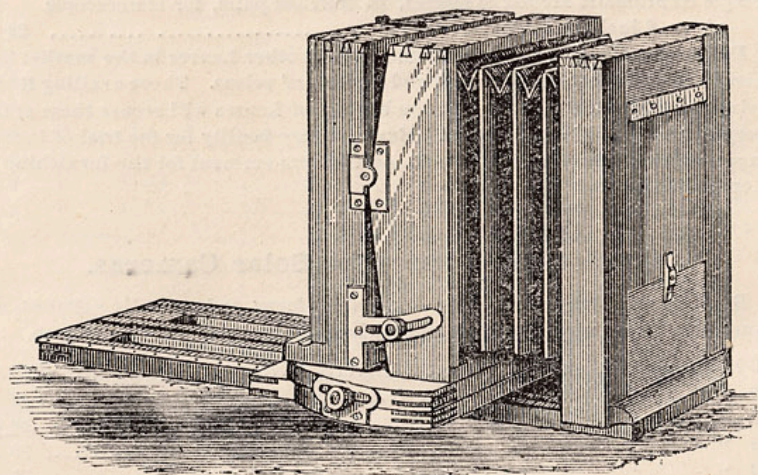
Being made of very pure Crown Glass, short focus, and perfectly polished, we can safely recommend them as the best Lenses ever made for the purpose.

6 inch diameter, each.....	\$12 00
9 “ “ “	20 00
10 “ “ “	30 00
12 “ “ “	55 00
14 “ “ “	75 00

Department B.**PHOTOGRAPHIC APPARATUS.**

The market affords a number of different makers' apparatus, and the lively competition for the past few years has resulted in placing before the public apparatus better, more carefully made by the most reliable workmen at rates very reasonable. We present a list of those which are universally popular, on account of their excellence. However, not being directly interested in any one particular kind, those ordering can depend upon receiving what they may order, always in perfect condition, at the lowest prices. Our new and commodious premises allows us to keep in stock a large assortment in this line ready for immediate shipment. We are prepared to furnish any article manufactured, promptly, at the lowest possible prices, from which we also deduct our special

discounts, which offers the purchaser special inducements to address his orders to this establishment. *The best is always the cheapest in the end.*



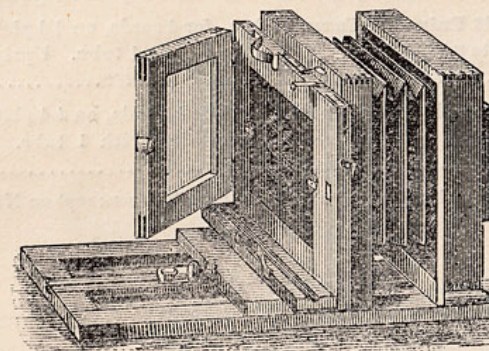
AMERICAN OPTICAL COMPANY'S APPARATUS.

CAMERA BOXES FITTED WITH SOLID GLASS CORNERS.

Portrait Camera Boxes.

These boxes are manufactured from the best Mahogany or Black Walnut French polished, with *India-Rubber Bellows*, solid or folding platform, with *Patent Brass Guides*, and *fine Focusing Screw*, with which the Focus is drawn upon the largest boxes with the same facility and accuracy as upon the smaller ones.

No.	Size	Revers.	for Plate	in.	...	Swing Back.	Double	Sw. Back.
No. 1	1-4	size	Revers.	for Plate	3 1/4 x 4 1/4	in. ... \$12 00	Swing Back.	25 00
2	1-2	"	"	"	4 1/4 x 5 1/2	" ... 15 00	\$20 00	\$25 00
3	4-4	"	"	"	6 1/2 x 8 1/2	" ... 30 00	35 00	40 00
4	ex. 4-4	size	"	"	8 x 10	" ... 35 00	40 00	45 00
4 1/2	ex. 4-4	size	"	"	10 x 12	" ... 42 00	50 00	55 00
5	8-4	size	"	"	11 x 14	" ... 50 50	58 00	65 00
6	Mammoth	"	"	"	14 x 17	" ... 65 00	73 00	80 00
7	"	"	"	"	17 x 20	" ... 80 00	90 00	95 00



Gem, Card and Universal Camera Boxes.

- No. 8.—Gem Box for 12 pictures on a 1-4 plate with 12 Tubes, 1-9 to 1-2 sizes, reversible, with 1 tube and 2 cards on a 1-2 plate with 2 tubes..... \$25 00
- No. 9.—The same box fitted with 12 tubes..... 60 00
- No. 10.—The same box fitted with 4 additional tubes for making 4 pictures on a 1-4 plate..... 75 00
- No. 11.—For 4, 8, 12, and 16 on a 1-4 plate, 1-9, to 1-2 Reversible, and 2 cards on a 1-2 plate..... 35 00
- No. 12.—The above fitted with 4 Darlot tubes (see cut above),..... 50 00
- No. 13.—For 2 cards, on 1-2 of 4-4 plate, and 1-9 to 1-2 picture. Reversible (Chicago Card Box),..... 25 00
- With double Swing Back (Chicago Card Box),..... 35 00
- No. 14.—4-4 Card Camera Box, covered front, for 4 cards with 4 tubes, with side doors for adjusting the focus..... 35 00
- No. 15.—9 x 11 Card Camera Box, covered front, for eight cards with 4 tubes, with side doors for adjusting the focus. Sideway movement.. 55 00
- No. 16.—4-4 Card Camera Box, for 4 cards, with 2 tubes. Upright movement..... 35 00
- No. 17.—4-4 Universal Camera Box, for 4 cards, with 2 tubes and 1-6 to 4-4 pictures, reversible, with 1 tube. Sideway movement..... 35 00

No. 18.—4-4 Universal Camera Box, for 4 cards, with 2 tubes and 1-6 to 4-4 pictures, reversible, with 1 tube. Sideway carriage movement. 40 00

No. 19.—8-10 Universal Camera Box, for 4 cards, on 4-4 plate, with 2 tubes and 1-6 to 8-10 pictures. Reversible, with 1 tube. Upright movement..... 45 00

No. 20.—8-10 Universal Camera Box, for 4 cards, on 4-4 plate, with 2 tubes and 1-6 to 8-10 pictures. Reversible, with 1 tube. Sideway movement..... 45 00

The prices for the above are without the Tubes except on Nos. 9, 10, and 12.

Excelsior Ferrotypes Camera Boxes and Lenses.

(Made of good material and warranted correct. Each one has a Focussing Screw, and the Lenses are true and well matched.)

No. 37.—Four 1-9 Lenses, Box and Holder, for 4 on 1-4 Plate..... \$25 00

No. 38.—Six 1-9 Lenses, Box and Holder, for 6 on 1-2 Plate..... 34 00

No. 39.—Nine 1-9 Lenses, Box and Holder, for 9 on 5x7 Plate..... 50 00

No. 40.—Sixteen 1-12 Lenses, Box Holder, for 16 on 1-4 Plate..... 48 00

No. 41.—Four 1-4 Lenses, Box and Holder for 4 on 5x7 Plate..... 44 00

No. 42.—Half-size Camera Box and Reversible Holder, for 4, 8 and 16 on 1-4 Plate with four 1-9 Lenses, arranged for making two Bon Tons on 1 2 Plate with one Lens. Price, including 4 1-9 Lenses..... 31 00

No. 42½.—The same as No. 42, with 1-2 Darlot Central Stop for making all sizes from 1-2 to 1-6 and two on a 1-2 Plate..... 54 00

No. 43.—4-4 Polished Mahogany Box, Rubber Bellows, Central Brass Guide and Focussing Screw for 4-4 to 1-6 and Reverse and 7x10 Shield for two Cabinets on 7x10, or one Cabinet on 5x7. Box and Shields, without Lenses..... 32 00

No. 44.—Same as No. 43, fitted with four 1-4 Lenses set on Brass Plate, for four on 5x7, or eight on 7x10 Plate..... 63 00

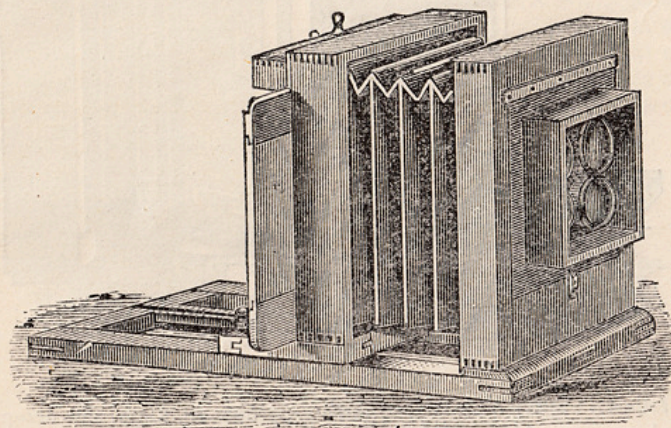
No. 45.—Same as No. 43, fitted with nine 1-9 Lenses, set on Brass Plate, for nine on 5x7, or eighteen on 7x10 Plate..... 76 00

No. 46.—Same as No. 44, with 1-2 Darlot Lens and Central Stops, for two Cartes de Visite on 4¼ x 6½ Plate..... 82 00

No. 47.—Same as 45, with 1-2 Darlot Lens and Central Stops, for two Cartes de Visites on 4¼ x 6½ Plate..... 93 00

No. 48.—Same as No. 45, With four 1-4 Lenses, &c., making 9 or 18 with 9 Lenses, 4 or 8 with 4 Lenses, and with 4-4 Lens, making two Cabinets on 7x10, or one on 5x7 Plate, and 4-4 to 1-6. Holders Reversible..... 155 00

The New Victoria Box.



It works a 5 x 7 plate, and may be used to make two Victoria cards, using one tube, on a 5 x 7 plate; four cartes de visite, using four ¼ tubes, on a 5 x 7 plate; and by reversing the four lenses it will make eight "Bon tons," on a 5 x 7 plate. It also makes all regular sizes, using four ¼ tubes, from 1-6 size to ¼.

The figure above represents it. It is a charming piece of apparatus, and works admirably. A novelty we have introduced with it is the catch, which keeps the carriage movement in place when the box is used as a multiplier. It is a great improvement on the old contrivance.

The front block separates according to the sizes required.

The styles are, viz :

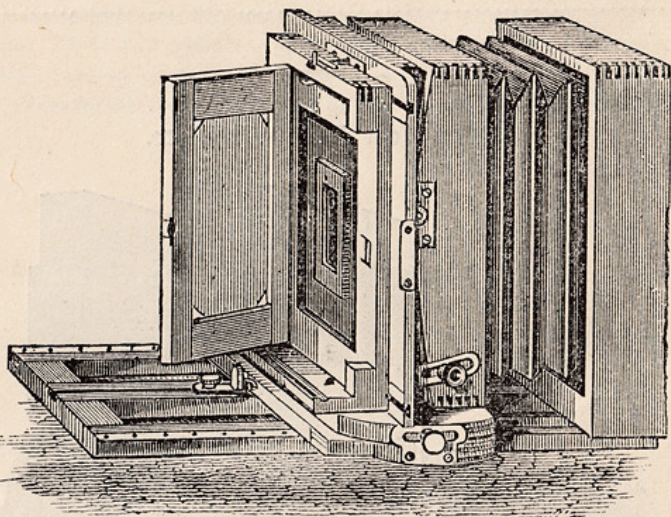
No. 21.—Victoria Card Box, with four ¼ Darlot tubes only..... \$60 00

No. 21.— " " without tubes..... 35 00

No. 21 a—New style, using two ¼ sizes Tubes only, without Tubes... 35 00

With two ¼ size Darlot Tubes..... 48 00

The Imperial Card or Cabinet Portrait Box.



The *Imperial Card or Cabinet Box* is one of the most useful and acceptable that we have ever sold, and it has probably done more towards the production of the new Imperial or cabinet size of *excellent quality* than is generally accredited to it. The reason of this is, that no pains have been spared to make it answer all the requirements that could be made of it *exactly*, and to make it perfect in all its parts. At first sight we have seen the photographer stand back as if he thought it was complicated; but, as all quickly find out, it is *not* so in the least. On the contrary, its motions are so simple and easy that any one can make it work without trouble.

The drawing we annex shows it well. It is provided with the India-rubber bellows, the double swing-back, the swinging ground glass, the patent focusing screw, the metal guides on the platform, the silver-saving bottle, and latest and last, the *improved* solid glass corners. The frame which carries the holder has a horizontal carriage movement, which, with the internal diaphragms provided, enables the operator to make with this box the following sizes and styles:

Two Imperial cards on an 8 x 10 or 4-4 plate, using one 4-4 tube; any size single pictures, from 1-6 to 8 x 10; 2 cards on a 4-4 or 5 x 7 plate, using a 1/4 size lens; 4 cards on ditto, using two 1/2 size lenses.

It will be observed, then, that this box may be used for all single portraits up to 8 x 10 size, and for two Imperials on one 8 x 10 plate. A smaller diaphragm enables you to make two cards on a 5 x 7 plate. Same style of box 4-4 size are made.

10 x 12 Imperial Card Box, the same as the 8 x 10 Imperial and 4-4, only larger. All the Imperial Boxes can be arranged so as to take 4 cards and 2 Victoria or card size with two 1/2 lenses (simply by reversing the front board, which requires an extra diaphragm), and regular work from 10 x 12 to 1/4 inclusive.

Photographs or ferrotypes made with equal ease. For prices and numbers see list following.

No. 22.—4-4 Imperial Card Box.....	\$40 00
22.—4-4 " ".....D. S. B....	50 00
23.—8 x 10 " ".....	45 00
23.—8 x 10 " ".....D. S. B....	55 00
24.—10 x 12 " ".....	52 00
24.—10 x 12 " ".....D. S. B....	65 00

It makes two Imperials on a 4-4 Plate, using one 4-4 lens.
 It makes two Cards on a 4 3/4 x 6 1/2 Plate, using one 1/2 size lens.
 It makes four Cards on a 4-4 Plate, using two 1/2 size lenses.
 Regular work 10 x 12 to 1-6 inclusive.
 Silver-saving Bottle in the holders, \$1 extra.

Multiplying Box.

No. 25.—8 x 10 American Optical Company's Multiplying Box—The "GEM" of all the Gem Boxes. This box will make:—

Seventy-two gems on a 7 x 10 plate.

Thirty-six " " 7 x 10 "

Eighteen " " 7 x 10 "

Nine " " 5 x 7 "

Eight 1-4 size cards on a 7 x 10 plate, using two 1-4 or 1-3 lenses.

Eight cards, using one lens for copying on a 7 x 10 plate.

Four small Imperials or four Victoria cards on a 7 x 10 plate, using a 4-4 lens.

Two large 4-4 size, on a 7 x 10 plate, using a 4-4 lens.

Regular work, from 1-4 to 8 x 10 inclusive.

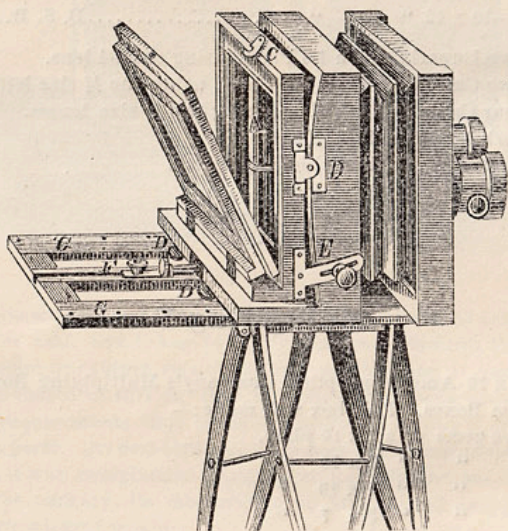
When arranged so as to take eight cards with four lenses, it requires another diaphragm.

The holders contain two sets of kits for ferrotypes and negatives. The latter with glass corners.

Unfitted (that is, without any tubes).....	\$85 00
Fitted with nine 1-9 Darlot tubes.....	115 00
“ “ 1-9 and 2½ Darlot tubes	127 50
“ “ 1-9 and 4¼ “	140 00
“ “ 1-9 and 4¼ x 1 4-4 Darlot tubes.....	185 00

Stereoscopic Boxes.

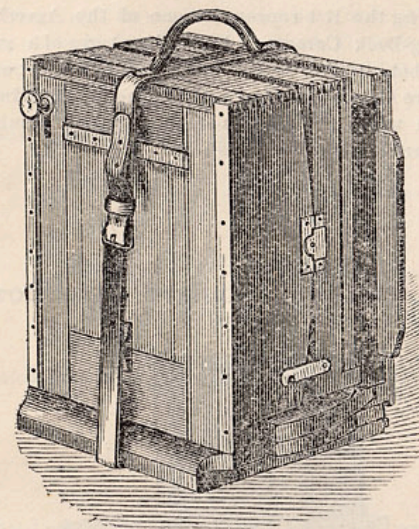
PATENT IMPROVED GLASS CORNER HOLDERS.



The New Philadelphia Box.

		<i>Single</i>
		<i>Swing.</i>
For Stereo and single views, reversible, 5 x 8 inches.....	\$30 00	\$35 00
No. 32.—For plate 4 x 7 or 4 x 8 inches.....	25 00	30 00
No. 31.—The same Box arranged with an extra front for 1-4 or 1-3 Lenses, with folding platform.....	30 00	35 00

No. 32.—For one Lens for plates 4 x 7 or 4 x 8 inches.....	25 00	30 00
No. 33.—For one 1-4 or 1-3 Lens for plates 4 x 7 or 4 x 8 inches	30 00	35 00



View Camera Boxes.

SOLID GLASS CORNERS, WITH VERTICAL SLIDING FRONT FOR ADJUSTING FOREGROUND AND SKY.

		<i>Swing</i>	<i>Double.</i>
		<i>Back.</i>	<i>Sw. Back.</i>
No. 51.—For Views 4¼ x 5½ in., Reversible.....	\$25 00	\$30 00	\$35 00
52.— “ 6½ x 8½ in., “	35 00	40 00	45 00
53.— “ 8x10 in., “	40 00	45 00	50 00
		<i>Swing</i>	<i>Double</i>
		<i>Back.</i>	<i>Sw. Back.</i>
No. 54.—For Views 12x12 inches, Reversible.....	\$50 00	\$55 00	\$60 00
55.— “ 11x14 “ “	60 00	68 00	75 00
56.— “ 14x17 “ “	70 00	78 00	85 00
57.— “ 17x20 “ “	85 00	93 00	100 00
58.— “ 20x24 “ “	100 00	110 00	115 00

These Boxes are the only ones made in this country which combine portability and lightness with durability and perfect accuracy—qualities which every operator will appreciate.

Plate Vises.

Ordinary Screw Vise, for plates from 1-9 to 8-10, each.....	\$	50
Extra Quality " " 1-9 to 4-4, "		4 00
" " " 4-4 to 17x20 "		6 00

Drying Racks.

No. 1, for 1-4 to 4-4 Plates.....	\$	75
No. 2, " larger "		1 25

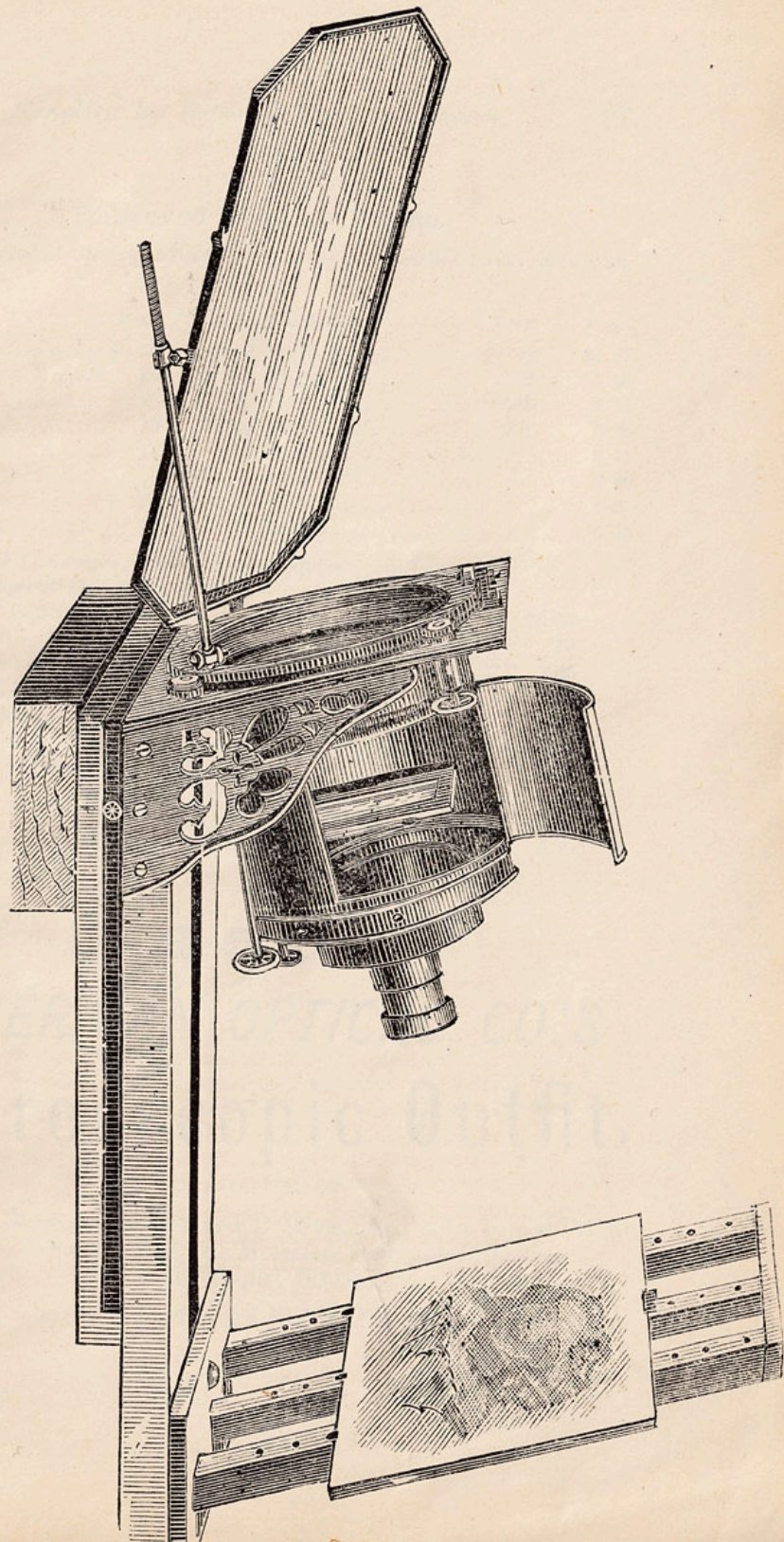
Camera Stands.

Knickerbocker, (new style)	\$5	75
No. 1, " with Elevating Rack.....	8	50
No. 2, " " " "	12	00
No. 3, " " " "	14	50
No. 3, " with Stoddard Top and Rack.....	18	00
1-2 Improved Excelsior Stands, iron centre and brace.....	4	00
4-4 or 8-10 " " " " "	4	50
1-2 or 8-10 " " " wood centre and brace.....	3	00
View Tripod, medium.....	3	00
" " large.....	5	00
Perfect or Perfection Stand, wood.....	20	00
" " " iron.....	18	00
Lever Adjustment Stand, for 11x14 box and smaller.....	15	00
" " " 17x20 "	20	00

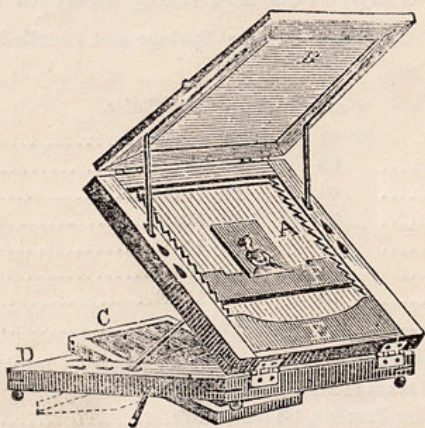
Head Rests.

The Rigid, each.....	\$12	50
Nilsson, tall, latest pattern.....	3	25
" short, "	3	15
Jenny Lind Table, "	3	25
Separate tops and rods.....	1	40
Chair Back Rests.....	2	25
Back Supports.....		65

THE NEW AND LATEST IMPROVED SOLAR CAMERA,
 (WOODWARD'S PATENT)
 FURNISHED BY RICHARD WALZL, BALTIMORE, MD.



The American Retouching Frame.

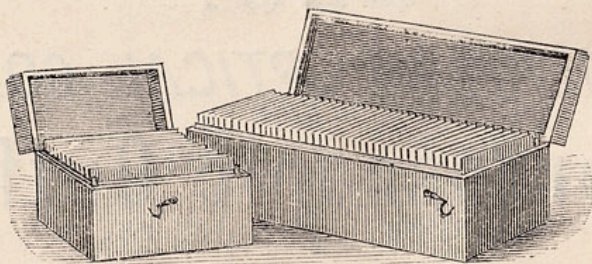


The newest innovation in the apparatus line is the *Retouching Frame*. We manufacture two sizes, with drawers for pencils, &c.

For all sized plates up to 8 x 10..... \$5 00
 " " " 11 x 14..... 10 00

They are provided with all the latest improvements. The perfection that can be given the negative by retouching cannot be too highly valued. All who would make the *best Work* use the Retouching Frame.

A. O. Co.'s Negative Boxes.



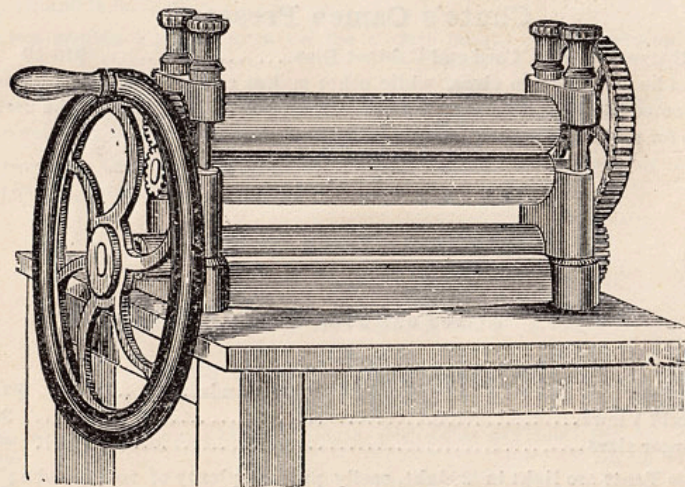
Manufactured from white wood or pine, with cover. A very superior article.

Negative Boxes.

No. Plates.	Size.	Price.	No. Plates.	Size.	Pr ce.
Twenty-four	1-9 plates, each	\$0 60	Twenty-four	6½ x 8½ pl., ea.	\$1 10
"	1-6	60	"	8 x 10	1 25
"	3¼ x 4½	70	"	10 x 12	2 50
"	4½ x 5½	75	Twelve	11 x 14	3 75
"	4¼ x 6½	80	"	13 x 16	4 00
"	4 x 7	85	"	14 x 17	4 25
"	4 x 8	90	"	16 x 20	5 25
"	5 x 7	95	"	17 x 21	5 50
"	5 x 8	1 09	"	20 x 24	6 00

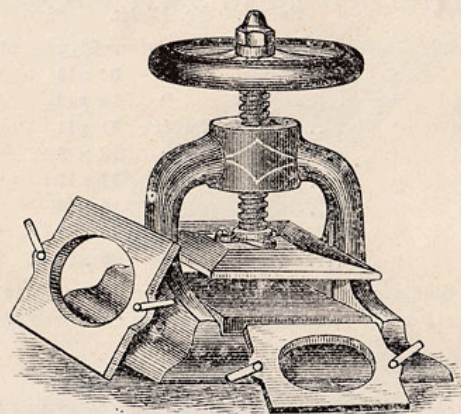
Special sizes to hold any number of plates required, made to order. On an order for six or more, a discount of 10 per cent. will be allowed.

Scovill's Excelsior Roller Presses.



	Steel Rollers.	Nickel Plated.
5 inch.....	\$10 50.....	\$12 50
6 ".....	12 00.....	14 00
8 ".....	14 00.....	16 00
10 ".....	18 00.....	21 75
12 " geared,.....	25 00.....	29 50

The cut above represents the 12-inch geared press. The smaller sizes are not geared.



Chute's Cameo Presses.

Universal, with Card and Cabinet Dies..... \$16 50

It can be used for two sizes, while other makes can only be used for one.—
The Cameo can be put exactly where you wish it The dies can be used as guides for making cut-outs.

Portable Dark Tents.

FOR OUT DOOR WORK.

- For Stereoscopic and 4-4 Views, complete, with Stands... .. \$22 50
- For 10x12 Views..... 30 00
- For larger sizes..... 45 00

These Tents are light in weight, easily put up, plenty of room, and a place for everything.

- Manipulators for holding large Plates, each..... \$1 00
- Bracket Background Castors. 3 in. wheels, per set..... 2 00
- Bennett's Patent Camera Attachment, for Vignetting and Copying.... 4 00

All goods in this department are examined, and only perfect articles will be sent. New styles have been noted when best, and old excluded.

HOLDERS and Boxes purchased from this House, will be properly focused and adjusted.

Photographers' Tents.

BLUE DYED OR WHITE.

Complete with Sky Light, etc.

Some of the advantages to be derived by having a Photographer's tent :
It is easily put up and taken down, packed in a small space and transported at a small expense without delay.
Is easily accepted by Railroads.
The operator is always sure of a good light, equal, if not superior to the best sky-light galleries.
By setting the tent in a proper position you have light from any point you may choose to have it.
A few months hiring a room on the clumsy cars or wagons pays for a good tent.
You can arrange it to your taste and present a nice cozy appearance.
No going up stairs or through unpleasant entrances.
Those who have used the tents are entirely satisfied with them, as they are convenient, pleasant, etc.

Price of the Photographers' Tents.

Mostly in use, made of best Duck Goods.

	<i>White.</i>	<i>Blue dyed.</i>
12x18 feet, 6 ft. walls and 12 ft. in middle, with poles and ropes	\$58 00	\$77 00
14x20 " " " " " "	80 00	90 00
15x25 " " " " " "	95 00	110 00
Chemical Room Departments	\$13 extra.	
Toilet " "	10 "	

The chemical and toilet rooms are attached on the tent and can be arranged in the tent as parties may wish them.

A card photo of our tents will be sent on application. We have furnished several hundred tents within the past two years, all of which have given entire satisfaction to the purchasers; our tents we guarantee are of the very best workmanship.

Department C.

THE DIFFERENT WARE GOODS USED IN PHOTOGRAPHY.

In this Department we are always well supplied with the best wares, Imported and of American make. Our enlarged premises and extending business allows us to keep in stock, ready for prompt shipment, the various sizes and makes as herein noted. Deducting from these prices our Special Discounts, the buyer will find it an inducement to direct his orders to this Emporium.

Glass Ware.

Baths—Solid Glass, for 1-4 Plates.....	\$0 75
“ “ 1-2 “	1 50
“ “ 4-4 “	2 50
“ “ 8-10 “	3 00
“ “ 10-12 “	4 00
“ “ 11-14 “	7 00
“ “ 14-17 “	20 00

German Glass Baths.

Boxed, with a Reversible Panel in front, so that the Solution can be examined.

With Tight Top.

For 4-4 Plates.....	\$4 25	\$8 25
“ 8-10 “	5 25	9 74
“ 10-12 “	7 25	12 00
“ 11-14 “	10 50	15 50
“ 14-17 “	27 00	32 00

Lewis' Patent Glass Baths.

	<i>Pots only.</i>	<i>Boxes only.</i>	<i>Box & Pots comp'ete.</i>
For 1-2 Plate.....	\$2 00	\$2 50	\$4 50
“ 4-4 “	3 25	2 75	6 00
“ 8-10 “	3 50	2 75	6 25
“ 10-12 “ pieced and boxed.....			20 00
“ 11-14 “ “			23 00
“ 14-17 “ “			35 00
“ 17-19 “ “			48 00
“ 18-22 “ “			60 00
“ 20-24 “ “			70 00

Glass Trays.

Each—4-4, \$1 00 8-10, \$2 00 10-12, \$3 00 12-15, \$4 00

Glass Funnels and Graduates.

Half pint Funnels, each.....	\$0 13	2 oz. Graduates, each.....	\$0 28
Pint “ “	18	4 “ “ “	40
Quart “ “	23	8 “ “ “	67
2 Quart “ “	33	16 “ “ “	1 20
4 “ “ “	75	24 “ “ “	1 45

Collodion Vials and Filters.

Vials, plain, 3 oz., each.....	\$0 17	Cometless, 3 oz., each.....	\$0 73
“ 4 “	18	“ 4 “	98
“ 6 “	23	“ 6 “	1 18
“ 8 “	28	“ 8 “	1 38
6 oz. Collodion Filters, each....	1 70	No. 1 Glass Mortars & Pestles, ea.	40
8 “ “ “ “	1 90	“ 2 “ “ “	50
16 “ “ “ “	3 00	“ 3 “ “ “	75
Cross “ “ “ “	3 00	“ 4 “ “ “	1 00

Porcelain Ware.

	<i>Baths.</i>	<i>Stands.</i>	<i>Dippers.</i>
3¼ x 4¼.....	\$0 95.....	\$0 25.....	\$0 30
5 x 6½.....	1 65.....	40.....	40
Stereoscopic.....	1 85.....	50.....	60
6½ x 8½.....	1 85.....	60.....	60
8 x 10.....	3 50.....	90.....	75
10 x 12.....	6 00.....	1 25.....	90
11 x 14.....	9 00.....	1 25.....	1 15
13 x 16.....	14 00.....	2 00.....	1 25
14 x 17.....	14 50.....	2 50.....	1 50
18 x 22.....	31 00.....	.....	3 00

Covered Baths, Water Tight Rubber Tops.

(Without Stand or Dipper.)

3¼ x 4¼.....	\$1 75	10 x 12.....	\$10 00
5 x 6½.....	3 50	11 x 14.....	15 00
6½ x 8½.....	4 50	13 x 16.....	20 00
8 x 10.....	6 50	14 x 17.....	21 00

Trays—Best Quality.

(The Dimensions given are for inside the bottom of the Tray.)

	<i>Shallow.</i>	<i>Deep.</i>		<i>Shallow.</i>	<i>Deep.</i>
5 x 7.....	\$0 45.....	\$0 55	13 x 16.....	\$3 85.....	\$4 70
6 x 8.....	50.....	65	14 x 17.....	4 25.....	5 25
7 x 9.....	60.....	75	15 x 19.....	4 50.....	6 00
8 x 10.....	80.....	1 00	17 x 20.....	7 00.....	8 50
9 x 11.....	1 10.....	1 30	18 x 22.....	9 50.....	12 00
10 x 12.....	1 25.....	1 60	19 x 23.....	9 75.....	12 50
11 x 14.....	2 25.....	2 75	19 x 24.....	16 50.....	13 50

Evaporating Dishes.

(Best German Porcelain, glazed inside, with heavy rim around top.)

No. 1.—Diameter 8 inches, capacity 24 ounces.....	\$0 68
2.— “ 9 “ “ 2 pints.....	75
3.— “ 10 “ “ 3 “.....	95
4.— “ 11 “ “ 2 quarts.....	1 15
5.— “ 12 “ “ 3 “.....	1 65
6.— “ 13 “ “ 1 gallon.....	1 95
7.— “ 15 “ “ 2 “.....	3 40
8.— “ 16 “ “ 3 “.....	4 50

Mortars and Pestles.

No. 1.....	\$0 63	No. 4.....	\$1 20
2.....	80	5.....	1 40
3.....	95	6.....	1 75

HARD RUBBER GOODS.

Trays.

4 x 5.....	\$0 60	15 x 18.....	5 00
5 x 7.....	75	15 x 18 deep.....	7 50
7 x 9.....	1 10	18 x 22.....	7 50
8 x 10.....	1 35	19 x 24 deep.....	9 00
10 x 12.....	2 25	21 x 26.....	9 00
12 x 14.....	3 50		

Baths.

	<i>Covered.</i>		<i>Covered.</i>		
4 x 5.....	\$0 85.....	\$0 00	12 x 16.....	5 50.....	9 00
5 x 7.....	1 20.....	4 00	14 x 18.....	6 50.....	10 50
7 x 10.....	1 75.....	5 00	17 x 20.....	8 00.....	15 00
9 x 11.....	3 50.....	6 75	19 x 24.....	10 00.....	18 00

Tight Top Baths.

5 x 7, Stereoscopic.....	\$3 60	14 x 18.....	\$9 00
7 x 10.....	4 50	17 x 20.....	13 50
9 x 11.....	6 00	19 x 24.....	16 25
12 x 16.....	8 00		

Dippers.

4 x 5.....	\$0 25	12 x 15.....	50
5 x 7.....	30	14 x 18.....	75
7 x 10.....	35	17 x 20.....	1 00
9 x 11.....	40	19 x 24.....	1 50


Funnels.

No. 0, $\frac{1}{4}$ pint.....	\$0 28	No. 2, 1 pint.....	\$0 48
1, $\frac{1}{2}$ ".....	38	3, 2 ".....	62

Department D.**PHOTOGRAPHIC CHEMICALS, Chemically Pure.**

From personal *practical* experience and observation, we are enabled to select for our patrons the most reliable, purest and best of all Photographic Chemicals; not confining our stock to one manufacturer's chemicals, but selecting from the numerous manufacturing chemists which are of special merit or recognized superiority. Conducting one of the leading Photographic establishments in the country, our productions must necessarily be of a first class character. As our Gallery is supplied with chemicals from the same stock which is furnished our customers, they can always rely on receiving the purest and best in market. To produce good work, good chemicals are essential.

In this List we have adopted a new plan in pricing our chemicals, by adding the price of the bottles to the chemicals, thereby doing away with the additional bottle and vial charges, which so often confuse and deceive the purchaser.— It is hardly natural to suppose that any one ordering silver, alcohol, acids, iodides, or in fact any chemical, but what would wish it properly bottled for shipment. The only reason why prices have not been thus quoted before by dealers is, because at a glance the prices would *seem* more than when given separately, but there is *no* difference when the two are added together. Orders to this, as to all other Departments, are solicited, under guarantee of prompt and correct filling from the purest and best stock obtainable in the country.

 Bottles are included in all these prices, except those marked in paper.

Acid, Acetic, No. 8, in 1 lb. bot..	\$0 25	Bromine.....	1 oz. bot.	35
" " 2 " ..	45	Cadmium Bromide.....	1 " "	65
" " 5 " ..	1 00	" Iodide.....	1 " "	1 00
" Glacial, 1 oz. " ..	15	" Chloride.....	1 " "	65
" " 4 " ..	45	Calcium, Chloride.....	1 " "	15
" " 8 " ..	75	Chloroform.....	1 " "	20
Acid, Nitric, in 1 oz. bot.....	18	Dextrine.....	1 lb. pap.	20
" 2 " ..	20	Demaline.....	per bot.	25
" 4 " ..	30	Distilled Water.....	per qt.	20
" 1 lb. " ..	48	" " ..	per $\frac{1}{2}$ gal.	35
Acid, Muriatic, 2 oz. " ..	20	Ether, Sulph. Conc.....	1 lb. bot.	85
" 4 " ..	30	" " ..	3 $\frac{1}{2}$ " "	2 70
" 1 lb. " ..	46	Enameline.....	per bot.	55
Acid, Sulphuric, 2 oz. " ..	20	Florine.....	1 lb. pap.	35
" 4 " ..	30	Gold Chloride, pure.....	15 gr. bot.	65
" 1 lb. " ..	50	" " and Sodium " ..	" "	38
Acid, Pyrogallie, $\frac{1}{2}$ oz. " ..	45	Gum Arabic, picked.....	1 lb. pap.	1 00
" 1 " ..	75	" Sandarac.....	" "	70
Acid, Gallic, 1 " ..	25	" Shellac, b'd & ref..	" "	1 00
Acid, Citric, 1 " ..	15	" Paste.....	per bot.	50
Alcohol, Phot. 95 pr ct. 1 pt. bot.	40	Iodine, Resublimed.....	1 oz. vial	1 00
" " 1 qt. " ..	73	" Tincture	" "	45
" " $\frac{1}{2}$ gal. " ..	1 40	Iron, Protosulphate.....	1 lb. pap.	08
" " 1 " ..	2 80	" Ammonia.....	1 " "	20
Alcohol, Atwood's pat. 1 qt. " ..	95	" " ..	5 " "	90
" " $\frac{1}{2}$ gal. " ..	1 75	Kaoline.....	1 " "	10
Ammonia, Liquid Conc. $\frac{1}{2}$ lb. " ..	33	Lead, Chloride.....	per oz. vial	20
" " 1 " ..	43	Lithium, Iodide.....	" "	2 25
Ammonia, Nitrate.....	1 oz. " "	" Bromide.....	" "	2 00
" " ..	1 lb. " "	Magnesia, Nitrate.....	" "	15
Ammonium, Bromide, 1 oz. vials	20	Magnesium, Bromide..	" "	63
" Iodide, 1 " ..	1 00	" Iodide.....	" "	1 05
" Chloride 1 " ..	15	Mercury, Bichloride...	" "	15
Accelerator.....	per bot.	Potassa, Nitrate, Gran.	per lb. bot.	40

Potassa, Bichromate...per lb. bot. \$0 50	Soda, Acetate.....1 lb. bot. \$0 75
“ Permanganate per oz. vial 25	“1 oz. vial 10
Potassium, Bromide.... “ 20	Soda, Bicarbonate.....1 lb. pap. 12
“ Iodide..... “ 75	“ Hyposulphate.....1 “ 10
“ Cyanide....per 1 lb. bot. 1 00	“ “5 “ 45
“ “ 1/2 “ 55	“ “10 “ 85
“ “ 1/4 “ 30	“ Phosphate.....1 lb. bot. 45
“ Sulphurat.. 1 “ 45	“ Tungstate.....1 oz. vial 25
“ “ 1/2 “ 25	Sodium, Bromide..... “ 30
Rotten Stone..... 1/2 “ 35	“ Iodide..... “ 80
Silver, Nitrate, C. P.....1 oz. vial 1 15	Strontium, Chloride..... “ 12
“ “2 “ 2 25	Uranium, Nitrate..... “ 95
“ “4 “ 4 45	“ Chloride..... “ 95
“ “8 “ 8 75	Zinc, Bromide..... “ 65
“ “1 lb. bot. 17 50	“ Iodide..... “ 1 00
Silver Solution for Neg. per qt. bot. 4 25	Oil of Lavender..... “ 25
Do. for Positives..... “ 4 00	Glass Polishing Powder..per box 25
Do. for Floating paper “ 3 50	Lee's Pol. Fluid for Photos. per bot. 25

Gun Gottons.

Liesegang's Papyroxyline, per oz. \$1 20	Anthony's No. 2 Soluble...per oz. \$0 45
Union Negative..... “ 45	“ Positive..... “ 45
“ Positive..... “ 45	“ Snowy..... “ 1 00
Anthony's Negative..... “ 45	Pary's Negative .. “ 50
“ No. 1 Soluble.. “ 45	Silver Spray..... “ 50

Collodions.

R. Walzl's O. K..... per bot. \$0 50	Newton's, quick..... 1/2 lb. 65
Anthony's pos. neg. & new, per lb. 1 15	Rembrandt..... 1/2 “ 70
“ “ “ per 1/2 lb. 60	Fenemore's..... 1/2 “ 90
Lewis & Holt's pos. & neg. 1 “ 1 15	Porcelain..... 1/2 “ 1 40
“ “ “ 1/2 “ 60	Kelsey's Banner Iodizers, sep. 1/2 “ 65

R. Walzl's *Exce's* or Rembrandt.....per 1/2 lb.....75.

Any other makers furnished at market prices.

Varnishes.

O. K. Varnish.....per bot. \$0 35	Grit Varnish, to give Surface for Retouching.....per bot. \$0 50
Mountford's Varnish.... “ 40	Rose Varnish, for Ferrotyp. “ 55
Anthony's “ Flint. “ 40	Maginnis' Crystal Varnish, “ 45
“ “ Diam. “ 40	Intensifiers “ 45
Excelsior Retouching.... “ 45	

Department E.

FERROTYPE PLATES AND PHOTOGRAPHIC GLASS.

We are always well stocked with a good supply of the popular brands, some of which we are exclusive agents for. Below we name some of the brands which are popular and most in use at present. We furnish all kinds, subject to our special discounts.

First Quality French Photographic Glass.

	Per box.	Per doz.	No. lights in box of 50 feet.	Per box.	Per doz.	No. lights in box of 50 feet.
4-4.....	\$5 75.....	\$0 55.....	130	15-18.....	\$7 25.....	\$3 25..... 27
8-10.....	6 50.....	90.....	90	16-20.....	7 25.....	3 80..... 23
10-12.....	7 00.....	1 40.....	60	18-22.....	9 00.....	6 00..... 18
11-14.....	7 25.....	1 80.....	47	20-24.....	10 50.....	8 50..... 15
13-16.....	7 25.....	2 45.....	35	22-28.....	11 00.....	0 00..... 12
14-17.....	7 25.....	2 80.....	31	25-30.....	11 50.....	0 00..... 9

Chance's Sheet.

4 4, per box.....	\$3 50
8-10, “	7 50

B. P. C.

Genuine, Splendidly Polished, and the best Glass that can be obtained for Negatives.

Size.	Gross.	Dozen	Size.	Gross.	Dozen.
1-9 B. P. C. Genuine..	\$1 25.....	\$0 13	1-2 B. P. C. Genuine..	\$6 25....	\$0 55
1-5 “ “ ..	2 25....	20	4-4 “ “ ..	15 00....	1 35
1-4 “ “ ..	3 50....	30	8-10 “ “ ..	28 00....	2 50

Half gross at gross price.

English Negative.

	<i>Gross.</i>	<i>Net.</i>
1-4 size.....	\$2 50	\$0 25
1-2 ".....	5 60	45
4-4 ".....		85
8-10 ".....		1 20

Porcelain Glass.

1-9 Plain or Ground, per doz....	\$0 60	4-4 Plain or Ground, per doz....	\$9 00
1-6 " " " " ... 1 25		8-10 " " " " ... 16 50	
1-4 " " " " ... 2 00		10-12 " " " " ... 25 20	
1-2 " " " " ... 3 85			

Select Ground Glass for the Camera.

1-4 Regular, each.....	\$0 20	4-4 Regular, each.....	\$0 65
1-4 Reversible, ".....	25	4-4 Reversible, ".....	75
1-2 Regular, ".....	30	8-10 Regular, ".....	90
1-2 Reversible, ".....	35	8-10 Reversible, ".....	1 10

Orange Glass for the Dark Room.

8-10, per light.....	\$0 40
10-12, ".....	50
12 14, ".....	75

Ferrotypes Plates.

There are now only two kinds manufactured—the Adamantines and the Phoenix. A full stock of each constantly on hand, and of a superior quality.

In ordering, please specify which make to send, 'Tinted or Black, Egg Shell or Glossy.

On account of the great advance in the price of Iron, Plates have advanced proportionately, and Ferrotypes have generally advanced their productions in consequence.

BLACK OR TINTED.

	<i>Egg Shell.</i>	<i>Glossy.</i>
Box of 8 dozen 1-9.....	\$0 70	\$0 80
" 8 " 1-6.....	1 15	1 25
" 8 " 1-4.....	1 70	1 85
" 4 " 1-2.....	2 00	2 25
" 2 " 4-4.....	2 25	2 50
" 4 " 5-7.....	2 25	2 50
" 2 " 7-10.....	2 50	2 75
" 2 " 8-10.....	2 50	2 75
Per sheet 10-14.....	12	14

Champion or Eureka Plate.

10 x 14, Egg Shell, per box of 200 plates.....	\$20 00
" Glossy, " " " "	24 00

Those availing themselves of our special discounts in this Department will be able to buy Plates from this Emporium at a less figure than any other house in the country offers the same for.

Department F.

PHOTOGRAPHIC PAPER.

It is always important, to secure all the negatives should yield, to secure good Paper on which to make the prints. There are numerous brands of paper, each having their admirers. We keep all the popular brands, (always fresh and in perfect condition) of both American and Foreign manufacture. If you have any special favorite that is in the market we can always furnish it.

Prices in this Department, like all others, are subject to the special discounts, of which offer all should avail themselves who desire the "best and cheapest" goods in use.

	<i>Per ream.</i>	<i>Per doz.</i>
Trapp & Munch, Genuine German Albumen Paper, 8 kilo....	\$32 00	\$1 00
" " " " " 9 ".....	31 25	1 00
" " " " " 10 ".....	35 50	1 00
" " " Rose-tinted " " 8 ".....	38 00	1 00
Hovey's Albumen Paper.....	33 00	1 00
Pearl ".....	33 00	1 00
Anthony's ".....	33 00	1 00
Dresden ".....	32 00	1 00
Clemons' ".....	35 00	1 00

Extra Brilliant Albumenized Paper, White or "Rose-tinted" \$46 00....	\$1 25
Salted Arrow Root.....	31 00.... 1 00
Saxe's Plain Medium.....	20 00.... 60
Endless Plain Paper, per yard.....	60

In quantities less than a quarter ream, dozen price will be charged.
Parties ordering paper by mail should add ten cents per dozen for postage and roller.

Superior German Filtering Paper.

	<i>Per package.</i>	<i>Per doz.</i>
No. 19, Round, 100 sheets in package.....	\$0 35.....	\$0 06
25, " " " ".....	50.....	08
32, " " " ".....	70.....	10
40, " " " ".....	90.....	13
Square White.....	00....	15
Litmus Paper, blue or red, per dozen.....		60
" " " " per sheet.....		05
Best White Sticking Paper, per dozen.....		25
" " " " per gross.....		2 75
Joseph Paper, for cleaning glass, per dozen.....		08
Tissue Paper, all colors, ".....		15
Blotting Paper, 18 x 22, ".....		1 50

NEW SPECIALTIES.

The elegant photographing productions which are made in the studio connected with the National Emporium has elicited the admiration and praise from the most advanced in the profession, and the question is daily being asked as what to Collodion, Varnish and Papers we use in our work. Desiring that all shall have the same advantages which we possess, I have been induced to add to our already popular specialties.

THE EXCELSIOR REMBRANDT AND NEGATIVE COLLODION,

is of a very superior quality, producing fine intensity, with exquisite detail in high lights, half tones and shadows, is of superior quick acting, good keeping and flowing properties, possessing all the requisites necessary in Collodion to produce the most desirable results in photography. Price, per bottle of 8 oz., 75 cents.

The Excelsior Retouching Varnish is unrivalled as a negative varnish, possessing the qualities of a durable, thoroughly hard, and commendable especially for its excellent surface for retouching. Price per bottle, 45 cents.

The Excelsior Brilliant Papers are doubly albumenized with pure unadulterated Albumen, is of the most brilliant surface, easy to tone, and when prints upon it are finished present a surface unobtainable by any other paper. Price, per dozen sheets, \$1 25. We have this in pure White and delicate Rose tint, with formula accompanying.

The Encaustic Retouching Composition and Paste, invented by J. Kranz, of Vienna, is of indispensable value for facilitating retouching the negative. Full directions with each vial. Price for Composition and Paste, 89 cents.

Department G.

CARD STOCK.

Over half a million of Cards on the premises. Embraced in the collection are every description of Plain and Gilt or Tinted Oval Mounting Boards, White or Tinted Cards, Card Mounts, many new and very beautiful styles, of which there are in store an abundance to supply the demand. Stereoscopic Mounts, beautiful Tinted Boards, Enameled and Rounded Corners, very fine. Imperial or Cabinet Cards, in the finest and cheapest varieties. New Holyoake Mounts, new Ferro Mounts, with opening in gilt, and all novelties in the Card Stock line received as soon as issued. Paper Mats in great variety, Carte Envelopes, etc., etc., etc.

White Photograph Card Boards—Plain.

SIZE OF CARD.	PRICE PER 100.			PRICE PER DOZEN.		
	Extra 1.	No. 1.	No. 2.	Ex. 1.	No. 1.	No. 2.
22 x 28	\$21 00	\$15 75	\$12 50	\$2 90	\$2 20	\$1 70
21 x 25.....	18 50	14 25	12 50	2 40	1 95	1 60
18 x 22.....	16 00	11 50	9 00	2 20	1 60	1 20
16 x 20.....	14 00	9 62	8 25	2 00	1 38	1 10
14 x 17.....	9 25	6 50	5 50	1 45	95	75
11 x 14.....	5 25	4 00	3 13	75	60	50
10 x 12	4 62	3 60	3 13	65	50	40
8 x 10.....	3 10	2 40	2 10	50	40	30
6½ x 8½.....	2 10	1 60	1 25	35	25	20

Tinted Photograph Card Boards.

PLAIN AND ASSORTED COLORS.

SIZE OF CARD.	PRICE PER 100.			PRICE PER DOZEN.		
	Extra 1.	No. 1.	No. 2.	Ex. 1.	No. 1.	No. 2.
22 x 28.....	\$18 00	\$15 50	\$12 00	\$2 60	\$2 25	\$1 70
21 x 25.....	17 50	14 25	11 00	2 50	2 00	1 65
18 x 22.....	12 00	10 00	8 00	2 25	1 65	1 25
16 x 20.....	11 70	9 85	7 37	2 00	1 40	1 10
14 x 17.....	9 00	7 50	5 25	1 50	1 00	80
11 x 14.....	4 50	3 85	3 00	75	60	50
10 x 12.....	4 50	3 60	2 75	65	50	40
8 x 10.....	3 60	2 40	1 85	50	35	30
6½ x 8½.....	1 80	1 55	1 20	35	25	20

Card Boards with India Tints.

Furnished at the following prices per 100 *additional* to the cost of the Plain Cards.

SIZES FROM	PRICE PER 100.						
	Lots of 100.	Lots of 200.	Lots of 300.	Lots of 4 or 500.	Lots of 6 or 700.	Lots of 8 or 900.	Lots of 1000.
6½x8½ to 11x14..	\$4 60	\$3 00	\$2 75	\$2 25	\$2 00	\$1 75	\$1 62
12x14.....	4 00	3 00	2 75	2 25	2 00	1 95	1 75
13x16 to 14x18....	4 00	3 00	2 75	2 50	2 35	2 25	2 25
15x18 to 17x21....	4 75	3 37	2 87	2 62	2 45	2 35	2 30
18x22.....	6 00	4 37	3 75	3 50	3 25	3 12	3 00
21x25.....	6 00	4 75	4 25	4 00	3 75	3 75	3 62
22x28.....	6 75	5 00	4 50	4 12	3 87	3 85	3 75

Additional for name and address in lithographic tint, \$1.75 for each lot.

White Mounting Cards.

With Oval, Square, Round Corners, or Arch Top, Gilt or Tinted Lines.

SIZE OF CARD.	PRICE PER 100.			PRICE PER DOZEN.		
	Extra 1.	No. 1.	No. 2.	Ex. 1.	No. 1.	No. 2.
18 x 22.....	\$20 00	\$15 75	\$13 00	\$2 75	\$2 25	\$2 00
16 x 20.....	17 50	13 12	11 75	2 50	2 00	1 65
14 x 17.....	11 00	8 25	7 25	1 65	1 25	1 10
11 x 14.....	6 00	4 70	3 85	1 00	75	60
10 x 12.....	5 37	4 35	3 85	75	60	55
8 x 10.....	3 85	3 15	2 80	60	50	40
6½ x 8½.....	2 85	2 35	1 95	40	35	30

Tinted Mounting Cards.

With Gilt or Tinted Oval, Square, Arch Top, or Round Cornered Lines.

SIZE OF CARD.	PRICE PER 100.			PRICE PER DOZEN.		
	Extra 1.	No. 1.	No. 2.	Ex. 1.	No. 1.	No. 2.
18 x 22.....	\$16 12	\$14 12	\$12 12	\$2 85	\$2 25	\$2 00
16 x 20.....	15 25	13 35	10 87	2 50	2 00	1 65
14 x 17.....	10 75	9 25	7 00	1 65	1 25	1 10
11 x 14.....	5 25	4 60	3 75	1 00	75	60
10 x 12.....	5 25	4 35	3 50	75	60	55
8 x 10.....	3 75	3 15	2 60	60	50	40
6½ x 8½.....	2 55	2 30	1 95	40	35	30

Larger or Special Sizes to order at proportionate prices.

The above prices include the cost of imprint in orders of 100 or more, for the usual sizes of openings. Orders for less than 100, with imprint, or for special sizes of openings, subject to an additional charge.

Stereoscope Mounts.

WITH ROUND CORNERS. Per 1000.

No. 2 —Enamelled both sides.....	\$ 9 50
2 —Enamelled face—white or tinted backs.....	8 75
2 —Tinted Board.....	8 00
2½—Enamelled both sides.....	8 50
2½—Enamelled face—white or tinted backs.....	7 75
2½ Tinted board.....	7 12
3 —Enamelled both sides.....	7 00
3 —Enamelled face—white backs.....	6 20
4 —Enamelled both sides.....	7 50
4 —Enamelled face—white or tinted backs.....	6 75
2 —Enamelled both sides.....4 x 7.....	10 80
2 —Enamelled face—white or tinted backs....4 x 7.....	9 88
2½—Enamelled both sides.....4 x 7.....	9 50
2½—Enamelled face—white or tinted backs....4 x 7.....	8 75
2 —Enamelled both sides—water proof.....	11 00
2 —Enamelled face, tinted backs—water proof....	9 50
2 —Moresque, enamelled face.....4 x 7.....	12 50

The above furnished, with square corners, at 50 cents per 1000 less than the above prices.

Cabinet Portrait Cards. Square Corners.

PRICE PER 1000.

C, Plain.....	\$5 87
C, Gilt or tinted borders.....	7 00
C, with India tint borders.....	8 25
No. 10, Gilt borders.....	7 00
A, with India tint borders.....	9 00
Extra No. 1, Plain.....	8 50
“ No. 1, Gilt or tinted borders.....	9 25
“ No. 1, with India tint borders.....	10 75

WITH ROUND CORNERS.

No. 6 D, Enamelled, gilt or tinted borders.....	10 25
A No. 1, Four-ply Bristol, white.....	8 62
A No. 1, Four-ply, gilt or tinted borders, Bristol.....	9 75
A No. 1, Four-ply, buff enamelled, plain.....	9 50

A No. 1, Four-ply, buff enamelled, gilt or tinted borders.....	\$10 62
No. 1, Tinted, plain.....	8 75
2, Tinted, gilt or tinted borders.....	9 75
2, Plain (tinted board).....	6 75
2, Gilt or tinted borders (tinted board).....	8 00
12, Light buff enamelled, plain.....	9 50
12, “ “ gilt or tinted borders.....	10 62
13, Light and dark buff, plain.....	8 75
14, Super double enamelled white, plain.....	12 50
15, “ “ gilt or tinted borders... 14 00	

Slee's Prepared, plain, \$1.50 per thousand additional to above prices.

Slee's Prepared, tinted lines, \$1.88 per thousand additional to above prices.

WITH SQUARE CORNERS.

No. 1, White or tinted boards.....6½x 8½.....	\$18 37
No. 2, White or tinted boards.... 6½x 8½.....	14 62

In orders for 1000 of Nos 1 and 2, no extra charge for imprint. Orders under 1000, with imprint, sixty-two cents additional for each lot.

No. 3 Enamelled boards, fancy borders, 11 x 14, per 100.....	\$1 50
No. 1 White, buff, pearl, or pink enamelled, 10 x 12, per 100..	6 00
No. 27, with India tint and gilt borders, square and oval opening, on cards 10 x 12, per 100....	4 50

Cards with India Tints.

No. 1, 10 x 12, with India tint, 7 x 9, Square, for 4-4 photos... \$5 00	
1, 14 x 17, “ “ 9 x 11, “ 8-10 “ ... 8 75	
1, 16 x 20, “ “ 13 x 15½, “ 11-14 “ ... 13 00	
1, 18 x 22, “ “ 13 x 15½, “ 11-14 “ ... 16 38	
28, 11 x 14, with India tint borders, square openings, for 4-4 photographs.....	6 25
28, 11 x 14, with India tint borders, oval openings, for 4-4 photographs.....	6 25
28, 11 x 14, with India tint and gilt borders, square openings, for 4-4 photographs.....	6 75
28, 11 x 14, with India tint and gilt corners, oval openings, for 4-4 photographs.....	6 75

For Printing Name, &c., with Letter Press.

PRICE PER 100.

On cards 6¼ x 8½ to 11 x 14, with India tints. Also, No. 28's; No. 27;

No. 1—10 x 12 Cabinet; No. 3—11 x 14 Cabinet.

In lots of.....	100	200	300	400	500	600 to 1000
	\$1.00	85 c.	70 c.	60 c.	55 c.	50 c. per 100.

The Holyoake Card Mount.

Holyoake Card Mounts.....per 1000.....	\$5 25
Holyoake, red and black—Victoria size	“ 8 75
Holyoake, on card, 6½ x 8½—Cabinet size.....	“ 100.... 2 62
Holyoake, regular size.....	“ 1000.... 14 75

Victoria Card Mounts, Round Corners.

	<i>Per 1000</i>
No. 22, White.....	\$4 62
22, Light buff.....	4 62
22, Dark “.....	4 62
22, White, gilt borders.....	5 75
22, Light buff.....	5 75
22, Dark “.....	5 75
A No. 1, Four-ply Bristol, white, plain.....	5 40
“ “ “ buff, enamelled, plain.....	5 75
No. 23, Light buff, enamelled, plain.....	5 75
A No. 1, Four-ply Bristol, white, gilt or tinted borders.....	6 50
“ “ Buff, enamelled “ “.....	6 85
No. 23, Light buff, enamelled, gilt or tinted borders.....	6 85

Slee's Prepared, \$1.00 per 1000 additional.

Card Mounts.

	<i>Per 1000.</i>
No. 16, Plain.....	\$1 56
17, “.....	1 70
1, “.....	2 00
21, “ tinted board.....	1 60
22, “ white.....	2 50
22, “ tinted board.....	2 25
24, “ tinted board.....	3 00
25, “ tinted and white.....	3 12
25, “ tinted or white, gilt or tint borders.....	3 25
27, “ tinted, assorted.....	3 50
Extra No. 1, Bristol, plain.....	2 62
A No. 1, Three-ply Bristol—plain, white or rose tint.....	3 20
“ Four-ply “ “ white.....	3 00
“ “ “ “ rose tint.....	3 62
“ “ “ “ buff, enamelled.....	3 25

No. 22, Gilt or tinted borders, white.....	\$3 25
22, “ “ tinted board.....	3 00
A No. 1, Four-ply Bristol, gilt or tinted borders.....	3 87
“ “ “ buff, enam'd, gilt or tinted borders.....	4 00

The above furnished with round corners at 50 cents per 1000 additional to the above prices.

No. 3, Gilt or tinted borders.....	\$2 00
2, D, Gilt “.....	2 12
2, Gilt or tinted “.....	2 25
1, Gilt borders.....	2 50
21, “ tinted board.....	2 35
A No. 1, Three-ply Bristol, gilt borders.....	4 12
Nos. 4, 9, 10, 11, 12, 15, 29, 30, 32 and 31, gilt or tinted vignette.....	2 50
Nos. 5, 6, 7, 8 and 20, gilt or tinted borders, ass'd tinted backs.....	3 00
Nos. 5, 6, 7, 8 and 20, with plain face, assorted tinted backs..	2 40
No. 20 D, with gilt or tinted borders, buff-tinted backs.....	2 75
Nos. 6 and 8, “ “ ass'd “ enam'd.....	4 75
6 and 7, with plain face. “ “ “.....	4 00
No. 31, Gilt or tinted borders “ “ “.....	4 75
31, with plain face, “ “ “.....	4 60
20 A, with gilt or tinted borders, “ “ “.....	5 50
26, Double enamelled, gilt or tinted borders.....	5 50
26, “ plain.....	4 50

Card Mounts with Round Corners.

No. 20, Enamelled, gilt or tinted borders.....	\$5 00
20, “ plain face.....	4 25
20 A, “ gilt or tinted borders.....	5 50
20 A, “ plain face.....	4 87
23, Buff Enamelled.....	3 25
23, “ gilt or tinted borders.....	4 00
23, Double Enamelled, “ “.....	5 50
23, “ plain face.....	4 50
22, Green.....	2 75
24, “.....	3 50
25, Light Buff, Dark Buff, and White, plain.....	3 62
25, Light Buff, Dark Buff, and White, gilt or tinted bord..	5 75
27, Assorted tints.....	4 00

Price per 1000 (additional to price of cards), for Gilt and Tinted Enamelled

	<i>Edges:</i>
Carte de Visite Mounts.....	\$2 62
Victoria “.....	3 75
Cabinet “.....	4 37

Bon Ton Cards.

White, Gray, Light Buff, and Dark Buff, gilt, arch top and oval openings..... per 1000.... \$1 62

Minette Cards.

Plain..... \$0 65
With Tinted Borders..... 1 12

Slee Bros.' Patent Prepared Card Mounts.

PRICE PER 1000.

	Square Corners.	Round Corners.
No. 17, Plain.....	\$2 30	\$2 80
Extra No. 1, Bristol, plain.....	3 25	3 75
No. 2, Purple borders.....	3 00	
2, Red ".....	3 00	
22, White, plain.....	3 10	3 60
22, " purple borders.....	3 85	4 35
22, " red ".....	3 85	4 35
22, Light Buff, plain.....	2 85	3 35
22, " purple or red borders.....	3 60	4 10
22, Dark Buff, plain.....	2 85	3 35
22, " purple or red borders.....	3 60	4 10
A No. 1, Four-ply Bristol white, plain.....	3 60	4 10
" " " purple or red borders....	4 50	5 00
A No. 1, Four-ply Bristol, rose tint, plain.....	4 25	4 75
" " light or dark buff, plain.....	3 85	4 35
" " " " tinted borders,.....	4 60	5 10
No. 31, Enamelled, plain, assorted tinted backs....		5 20
" " purple borders, ass'd ".....		6 00
No. 20, Plain, assorted tinted backs.....	3 00	
" Red borders, assorted tinted backs.....	3 50	

DIRECTIONS FOR USING SLEE BRO.'S CARD MOUNTS.

Trim the prints before toning; mount them while thoroughly wet, direct from the water-bath or basin of water; place the print upon the card, removing the surplus water with a soft rag or sponge, and rub down in the usual manner. Should there be a disposition to peel, (which will not be the case if evenly rubbed down), it is only necessary to wet the part, and rub down as before.

For printing name and address, per 1000, on Ferrotypes, Bon Ton, Card, Victoria, Cabinet, and Stereoscopic Mounts:

	In lots of 1000.	2000.	3000.	5000.	10,000
Card Mounts.....	\$0 90	\$0 62	\$0 62	\$0 62	\$0 62
Victoria Mounts.....	1 40	1 00	95	80	80
Stereoscopic Mounts..	1 50	1 00	95	80	80
Cabinet Mounts.....	1 40	1 00	95	80	80

For 500 or less, \$1.00 for each lot.

Ferrotypes Mats.

Plain White, (Bergen).....	per 1000....	\$2 25
White, with gilt borders.....	"	2 00
Light Buff, with gilt or red borders.....	"	2 00
Dark Buff, " ".....	"	2 00
Gray, " ".....	"	2 00
Per 100.....		25

In ordering Ferro Mats please send Nos. or Samples as to size opening desired

Embossed Gem or Ferrotypes Slips or Envelopes.

<i>New and Neat.</i>	Per 100.	Per 1000.
No. 3, Oval opening 1¼ x 1¼.....	\$0 50	\$4 50
4, " 1½ x 1½.....	50	4 50
5, " 1½ x 2¼.....	50	4 50
9, Arch " 1½ x 2¼.....	50	4 50
10, " " 1¾ x 3.....	50	4 50
Victoria, Oval " 2 x 3¼.....	55	5 00
" Arch " 2 x 3¼.....	55	5 00

Envelopes.

	Per 100.	Per 1000.
Gem, for 1-6 Plate.....	\$0 65	6 00
Card, for 1-4 Plate.....	80	7 50
Victoria, for 1-2 Plate.....	1 10	10 00
Half size.....	1 30	12 50
Cabinet, for 5-7 Plate.....	1 60	15 00

Common Buff or White Envelopes, suitable to deliver pictures in, from \$2.00 to \$5 00 per 1000. Buff Envelopes for Mailing Imp. Cards, \$8 00 per 1000. Printing business cards on above, \$1.00 per 1000. Special printing, extra price.

Paper Mats—White.

OUTSIDE MEASURE	PRICE PER 100.		PRICE PER DOZ.	
	Oval.	R. C. or Arch.	Oval.	R. C. or Arch.
5 x 6.....	\$1 00	\$1 62	\$0 13	\$0 20
6½ x 8½	1 30	2 00	20	25
8 x 10.....	1 62	2 25	25	35
10 x 12.....	2 10	2 75	35	40
11 x 14.....	3 75	5 00	60	5
14 x 17.....	6 25	8 50	1 00	1 25
16 x 20.....	9 50	11 00	1 50	1 75
18 x 22.....	12 00	12 50	1 75	2 00
20 x 24.....	13 50	15 00	2 00	2 50
22 x 28.....	15 00	16 00	2 50	2 75
25 x 30.....	20 00	24 00	3 50	4 25

Tinted.

OUTSIDE MEASURE.	PRICE PER 100.		PRICE PER DOZ.	
	Oval.	R. C. or Arch.	Oval.	R. C. or Arch.
5 x 6.....	\$1 25	\$3 00	\$0 18	\$0 25
6½ x 8½.....	1 75	2 25	25	30
8 x 10.....	2 15	2 75	30	35
10 x 12.....	2 50	3 25	40	50
11 x 14.....	4 00	5 00	70	80
14 x 17.....	8 00	9 00	1 25	1 50
16 x 20.....	10 50	12 00	1 75	2 00
18 x 22.....	12 25	12 50	2 00	2 25
20 x 24.....	15 50	16 00	2 50	2 75
22 x 28.....	16 50	17 00	2 75	3 00
25 x 30.....	24 00	27 00	3 75	4 50

Double Paper Mats—Embossed.

OUTSIDE MEASURE.	PRICE PER 100.		PRICE PER DOZEN.	
	Oval.	Arch or Square.	Oval.	Arch or Square.
6½ x 8½.....	\$ 3 65	\$ 4 25	50	60
8 x 10.....	5 25	6 00	65	80
10 x 12.....	6 50	8 00	90	\$ 1 20
11 x 14.....	10 00	11 00	\$ 1 40	1 50
14 x 17.....	18 00	19 00	2 50	3 00
16 x 20.....	25 50	26 50	3 50	4 00
18 x 22.....	28 00	32 00	4 00	4 50
20 x 24.....	33 50	38 00	4 50	5 50
22 x 28.....	35 00	40 00	5 00	6 00

Lithographed Embossed Mats.

WHITE OR TINTED CARDS, WITH OVAL ROUND CORNERS AND ARCH TOP OPENINGS.

10x12, \$4.75 per 100.

75 CENTS PER DOZ.
 5 x7 Oval Openings.
 5½x7½ " "
 6 x8 " "
 7 x9 " "

8x10, \$3.75 per 100.

60 CENTS PER DOZ.
 3½x5 Oval Openings.
 5 x7 " "
 5½x7½ " "
 6 x8 " "
 3¼x5¼ " "
 3¼x5¼ R. C. "
 3¼x5¼ A. T. "

6½x8½, \$3.37 per 100.

55 CENTS PER DOZ.
 3½x5 Oval Openings.
 3¼x5¼ R. C. "
 3¼x5¼ A. T. "

4½x5½, \$2.00 per 100.

40 CENTS PER DOZ.
 2½x3¼ Oval Openings.
 2½x3¼ A. T. "

Fine Leather Cases—Oval.

Fitted with French Ring and Convex Glass.

	<i>Turkey Morocco.</i>	<i>Russia Leather.</i>
1-9.....	\$14 00	\$15 00
1-6.....	16 00	18 00
1-4.....	22 00	24 00
1-2.....	50 00	52 00

Union Cases.

PER DOZEN.

	<i>Unfitted.</i>	<i>Fitted.</i>	
1-16 Square.....	\$2 60	\$2 95	
1-9 ".....	3 10	3 50	
1-5 ".....	3 80	4 45	
1-4 ".....	5 70	6 95	
1-2 ".....	10 00	12 25	
		<i>Single.</i>	<i>Double.</i>
1-16 Oval, fitted.....		\$3 00	\$3 75
1-12 ".....		3 25	4 25
1-9 ".....		3 80	5 00
1-5 ".....		4 75	6 25

Double cases, unfitted, same price as single.

Union Locket Cases.

Plain, single, per dozen, fitted.....	\$1 12
Gilt, " ".....	1 62
Plain double " ".....	1 62
Gilt, " ".....	1 90

The "Novelty" Case.

No. 1, fitted, each (very fine shell, in shape of egg).....	\$1 00
No. 2, " " " ".....	1 25

Union Card Frames.

No. 30, Plain, not fitted, per dozen.....	\$1 40
31, Gilt, " ".....	2 10
43, " fitted, ".....	3 10
28, " oval, fitted ".....	3 30
47, " Illuminated ".....	3 30
48, " extra, oval ".....	3 80

Union Victoria Frames.

Brown or Black, square outside (oval opening) per dozen....	\$6 30
" " R. C. " ".....	6 30

Union Cabinet (Imperial) Frames.

No. 49, Gilt (oval opening) per dozen.....	\$7 60
50 " " extra, ".....	9 50
51 " R. C. " ".....	7 60

Diatite Frames.

Card Size, assorted, per dozen.....	\$2 25
Victoria " ".....	6 50
Cabinet " ".....	8 00

Oval Union Frames.

Per dozen—1-9, \$1.80; 1-6, \$2.85; 1-4, \$3.80; 1-2, \$5.25; 4-4, \$11.40.

Union Trays.

Per doz. empty, 1-9, \$1.00; 1-6, \$1.50; 1-4, \$2.25; 1-2, \$3.75, 4-4, \$10.50.
Per doz. fitted, 1-9, \$1.40; 1-6, \$2.15; 1-4, \$3.50; 1-2, \$6.00; 4-4, \$13.50.

Mats and Preservers.

	GROSS. DOZEN.	
	\$1 50	\$0 13
1-16 Assorted patterns.....	2 00	18
1-9 ".....	3 00	26
1-6 ".....	6 00	50
1-4 ".....	10 00	90

Square Fittings, Mats, Preservers and Glass.

Per dozen--1-16, .33; 1-9, .40; 1-5, .65; 1-4, \$1.25; 1-2, \$2.25.

Department J.

PHOTOGRAPH ALBUMS.

ALBUMS.—We keep an almost endless variety of Albums, comprising all styles in velvet, leather and cloth, and space for 12 cards up to 200. We also furnish Cabinet and Victoria size. We have albums from 50 cents up to twenty dollars. Many of our customers are doing an excellent business in albums, who at first could hardly be induced to purchase them. We offer, as will be seen by the annexed prices, Albums at a much less figure than the same quality has been sold for heretofore.

No.	No. of Pictures.	Description.	Price Each.	No.	No. of Pictures.	Description.	Price Each.
3.....	12.....	Tuck.....	\$ 0 33	13.....	12.....	C. Morocco.	33
4.....	16.....	".....	38	14.....	24.....	".....	50
5.....	24.....	".....	50	15.....	24.....	" chased.	50
6.....	24.....	" chased..	55	17.....	50.....	".....	95
7.....	12.....	" T. M..	60	18.....	50.....	".....	1 05
8.....	24.....	" " ..	75	20.....	50.....	".....	1 05
10.....	12.....	Clasp cloth.	25	22.....	50.....	".....	90
12.....	24.....	".....	40	23.....	50.....	".....	1 05

No.	No. of Pictures.	Description.	Price Each.	No.	No. of Pictures.	Description.	Price Each.
24 to 30..	50.....	.....	95	191.....	100.....	.....	2 20
32.....	30.....	.....	80	192.....	100.....	.....	1 85
33.....	40.....	.....	95	195.....	100.....	.....	2 00
31.....	30.....	.....	65	199.....	100.....	.....	2 20
35.....	40.....	.....	75	201.....	100.....	.....	2 40
40.....	50.....	.....	1 25	205.....	100.....	.....	3 50
42.....	50.....	.....	1 15	206.....	100.....	.....	4 00
43.....	50.....	.....	1 25	207.....	100.....	.....	2 85
99.....	50.....	.....	1 60	209.....	100.....	.....	4 00
527.....	50.....	.....	1 80	210.....	100.....	.....	5 00
125.....	50.....	.....	1 65	213.....	100.....	.....	4 00
126.....	50.....	.....	1 75	214.....	100.....	.....	5 00
127.....	50.....	.....	2 00	215.....	100.....	.....	5 00
128.....	50.....	.....	2 35	216.....	100 Pearl ornament...	.....	8 50
129.....	50.....	.....	1 85	216.....	100 Painting " ..	.....	8 50
131.....	50.....	.....	2 15	216.....	100 Fitted Clasp.....	.....	7 50
133.....	50.....	.....	2 50	228.....	104.....	.....	3 00
134.....	50.....	.....	1 85	228.....	152.....	.....	3 25
137.....	50.....	.....	1 65	228.....	104 assorted, opening.	.....	3 25
133.....	50 very fine.....	.....	4 00	228.....	152 " " ..	.....	3 75
140.....	50.....	.....	1 65	229.....	104 Card " ..	.....	3 25
142.....	50.....	.....	1 85	229.....	152 " " ..	.....	3 75
143.....	50.....	.....	3 00	229.....	104 assorted, opening.	.....	3 75
145 to 147.	50.....	.....	4 00	229.....	152 " " ..	.....	4 00
152.....	50.....	.....	1 75	231.....	104 Card " ..	.....	7 50
153.....	50 Ivory ornaments..	.....	4 00	231.....	152 " " ..	.....	7 25
154.....	50.....	.....	2 00	236.....	104 " " ..	.....	5 25
155.....	50.....	.....	4 00	233.....	152 " " ..	.....	5 75
156.....	50 Pearl.....	.....	4 75	233.....	104 assorted " ..	.....	6 00
156.....	50 Painting.....	.....	6 50	236.....	152 " " ..	.....	6 50
156.....	50 Porcelain orna't..	.....	6 75	251.....	200 Card as. " ..	.....	7 50
156.....	50 Medallion " ..	.....	6 50	256.....	200 " " ..	.....	12 00
156.....	50 Gross.....	.....	7 75	267.....	200 " " ..	.....	11 50
190.....	100.....	.....	1 85				

Cabinet Albums.

No.	No. of Pictures.	Price Each.	No.	No. of Pictures.	Price Each.
228.....	30.....	4 00	251.....	50.....	7 00
229.....	40.....	5 00	254.....	50.....	6 00
231.....	30.....	7 50	267.....	50.....	11 00
235.....	40.....	7 00			

English Style, all Turkey Morocco, and Bound on Guard.

5¼x6¼ for 50 Pictures.....	\$5 25	For 40 Cabinets.....	8 00
7x8 " 100 "	7 50	" 50 "	16 50
" 104 assorted op'ng..	7 50	" 200 Cards.....	16 50
" 152 " " ..	8 00	" 200 Assorted.....	16 50
" 30 Cabinets.....	7 50		

Department K.

PHOTOGRAPH FRAMES, CORDS, TASSELS, SCREW EYES and PICTURE NAILS.

FRAMES.—See that your pictures are properly framed. Some photographers do not keep frames at all. There is considerable room for profit on frames, and as long as the *photographer* can buy them at *wholesale* rates, and as they are to be framed, why can he not just as well retail them to his customers, and make the profit as to *send it away to some one else?* Our stock is choice and extensive, and all new styles of merit are for sale as soon as in the market. Our prices will be found very reasonable. We intend to deal larger in frames than heretofore, having more room and better facilities to accommodate an increase in the Business. We quote prices of the leading and handsomest styles. All prices in this department are given unfitted, and subject to our new offer of special discounts.

New Style Oval, Carved and Leaved Walnut Frames.

WITH GILT SLIP INSIDE.

<i>Size.</i>	<i>Price Per Doz.</i>
4x 5.....	\$9 00
6x 8.....	11 00
7x 9.....	12 00
8x10.....	13 00
10x12.....	16 50

Extra Fine Oval Gold Gilt Frames.

SIZE.	PRICE OF SINGLE FRAME.			
	No. 3. With Centres & Burnished.	No. 49. Inside Bead and Burnished Bead and Centre.	No. 92. Handsome Cen- tres Top Bead & Centre Burnsh'd	No. 77. Burnished, with inside handsome ly stenciled.
1-2	\$0 90	\$1 00	.....	.....
4-4 ...	1 15	1 20	.....	.....
8-10. .	1 50	1 60	.....	.....
10-12...	1 95	2 00	.....	.....
11 14...	2 35	2 40	.....	.....
13-16 ..	2 65	2 65	\$4 00	\$7 00
14-17...	3 25	3 00	5 00	7 50
16 20..	3 75	.....	5 50	8 50
18-22...	4 90	.....	7 00	9 50
20-24...	5 00	.....	8 00	13 00
22-27...	.....	.....	.....	15 00
25-30...	.....	.....	.....	16 50

Prices above are for frames unfitted, and embrace the best patterns and leading styles. Square gold frames, of latest pattern, furnished to order in any desired size.

New Style Oval Black Walnut Frames.

We have just introduced a new Oval Frame, polished, with edge of walnut gilded, which is very cheap and worthy of attention.

PRICE PER DOZEN.	
8 x 10, 1¼ inch Walnut edge, Gilded, No. 15.....	\$ 7 00
8 x 10, 2¼ " " " " 16.....	9 00

Oval Walnut Frames.

FINE STYLES, THE LEADING PATTERNS, WITH GOLD GILT SLIP INSIDES, FOR PHOTOGRAPHERS.

PRICE PER DOZEN.

Width including Gilt.	No. 1.	No. 3.	No. 6.	No. 7 1-2.	No. 11.	No. 12½
	1½ inch.	2 inch.	2 1-4	2 3-4 inch.	Carved Rustic.	Carved Stem.
SIZES.						
8x10	\$ 7 75	\$ 9 75	\$ 11 50	\$ 12 50	\$ 13 00	\$ 16 00
10x12.....	10 25	12 75	15 00	16 50	16 00	20 00
11x14.....	.....	16 25	19 00	21 00	.....	24 50
13x16.....	.....	20 25	23 00	25 00	.....	30 00

BLACK WALNUT OVAL FRAMES, WITH GOLD GILT RABBETED INSIDES, FOR PHOTOGRAPHS, PICTURES, ETC.

PRICE PER DOZEN.

Width, including Gilt.	No. 3.	No. 6.	No 7½.	No. 8.	No. 21.
	2 inch.	2¼ inch.	2¾ inch.	3 inch.	2¼ inch.
SIZES.					
8 x 10.....	\$ 11 75	\$ 13 50	\$ 14 50	\$ 18 50	\$ 15 00
10 x 12.....	14 75	17 00	18 50	22 50	19 00
11 x 14.....	18 75	21 00	23 00	27 00	24 00
13 x 16.....	22 25	25 00	27 00	31 00	28 00
	2½ inch.	2¾ inch.	3¼ inch.	3½ inch.	3 inch.
14 x 17.....	27 00	30 00	32 00	36 00	33 00
16 x 20.....	32 00	35 00	37 00	41 00	38 00
18 x 22.....	.....	39 00	41 00	45 00	42 00
20 x 24.....	.....	43 00	45 00	49 00	46 00
22 x 27.....	.....	.....	50 00	55 00	.....

Oval Frames, with Rabbet Insides.

Width, including Gilt.	No. 9.	No. 12.	No. 14.	No. 19.	No. 22.	No. 24.	No. 27.	No. 28.	No. 29.
	¼ in. Mat inside.	Carved Stem.	Carved Stem.	Carved Stem, Extra Heavy.	Carved Double Rope Pattern.	With Ebony Stripe.	With 3 Ebony Stripes.	Ebony Stripes, Gilt line, Engraved Centres.	Carv'd Stem Ebony Stripes, Gilt line and Engraved Centres.
SIZES.									
8 x 10.....	\$ 27 00	\$ 19 00	\$ 22 50	.....	\$ 18 00	\$ 22 50	\$ 20 00	.....	.....
10 x 12.....	33 00	24 00	28 00	.....	22 50	27 50	25 00	.....	.....
11 x 14.....	39 00	30 00	34 00	.....	28 50	33 50	31 00	.....	.....
13 x 16.....	47 00	36 00	40 00	\$ 60 00	34 00	40 00	37 00	\$ 78 00	\$ 96 00
	4¼ inch.	3 inch.	3½ inch.	4¼ inch.	3 inch.	3¾ inch.	3¼ inch.	4¼ inch.	4 inch.
14 x 17.....	54 00	42 00	46 00	68 00	.....	46 00	43 00	86 00	104 00
16 x 20.....	64 00	48 00	52 00	78 00	.....	58 00	49 00	96 00	114 00
18 x 22.....	72 00	54 00	58 00	88 00	.....	.....	55 00	106 00	124 00
20 x 24.....	78 00	60 00	64 00	96 00	.....	Above, with 4 en-grav'd gilt centres \$5 per doz. extra.	61 00	114 00	132 00
22 x 27.....	90 00	.....	.....	108 00	.....	.....	Above, with 2 gilt centres \$5 per doz. extra.	126 00	144 00
25 x 30.....	102 00	.....	.....	120 00	.....	.....	.....	138 00	156 00

Number 31. New Styles Solid Oval Frames, for Photographs, Pictures, &c.

BURNISHED GOLD BEAD INSIDES, WITH SQUARE BACKS. PER DOZ.

SIZES.	A		B		C		E		G		H		I		K		L		M	
	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.
5 x 7	13 00		14 00		19 00		18 00		19 00		20 00		21 00		31 00		25 00		22 00	
6 x 8	14 00		15 00		20 00		19 00		20 00		21 00		22 00		32 00		26 00		23 00	
7 x 9	15 00		16 00		21 00		20 00		21 00		22 00		23 00		33 00		27 00		24 00	
8 x 10	16 00		17 00		22 00		21 00		22 00		23 00		24 00		34 00		28 00		25 00	
9 x 11	18 25		19 50		24 50		23 50		24 50		25 50		26 75		37 00		31 00		27 75	
10 x 12	20 50		22 00		27 00		26 00		27 00		28 00		29 50		40 00		34 00		30 50	
11 x 14	26 00		27 50		34 00		33 00		34 00		35 00		37 00		47 00		41 00		38 00	
13 x 16	34 00		35 50		45 00		44 00		45 00		46 00		49 00		59 00		53 00		50 00	
14 x 17	39 00		40 50		51 50		50 50		51 50		52 50		56 00		66 00		60 00		57 00	

Other styles furnished to order. The above we find the most saleable and handsomest patterns.

Number 32. New Styles Solid Oval Frames, for Photographs, Pictures, &c.

NEW STYLE, SQUARE OUTSIDE, OVAL OPENING, WITH RAISED INSIDES FROM FRONT. PER DOZ.

SIZES.	A		B		C		E		F		H		I		K		L		M		P	
	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.
5½ x 6½	18 00		19 00		.....		24 00		24 00		.....		26 00		.....		.....		27 00		26 00	
6½ x 8½	19 50		20 50		.....		25 50		25 50		.....		27 50		.....		.....		28 50		27 50	
8 x 10	21 00		22 00		26 00		27 00		27 00		28 00		29 00		39 00		33 00		30 00		29 00	
10 x 12	25 50		27 00		32 00		32 00		32 00		33 00		34 50		45 00		39 00		35 50		34 50	
11 x 14	31 00		32 50		39 00		39 00		39 00		40 00		42 00		52 00		46 00		43 00		42 00	
13 x 16	39 00		40 50		50 00		50 00		50 00		51 00		54 00		64 00		58 00		55 00		54 00	
14 x 17	44 00		45 50		56 54		56 50		56 50		57 50		61 00		71 00		65 00		62 00		61 00	
16 x 20	55 00		57 00		70 50		70 50		70 50		71 50		76 00		86 00		80 00		77 00		76 00	
18 x 22	62 00		64 00		78 50		78 50		78 50		79 50		84 50		95 00		89 00		85 50		84 50	
20 x 24	69 00		71 00		87 00		87 00		87 00		88 00		93 50		104 50		98 00		94 50		93 50	

Other numbers of solid Ovals furnished to order. From experience and observation, we find the above the leading and most desirable patterns.

WALNUT CARVED FRAMES.

With leaves on corners and gilt insides.

4½ x 6½.....per dozen	\$2 50	13 x 16.....per dozen	\$3 50
6½ x 8½	3 25	14 x 17.....	6 50
8 x 10	3 50	16 x 20.....	8 00
10 x 12	4 25	18 x 22.....	11 00
11 x 14	5 00		

PLAIN BEADED RUSTICS.

	<i>No Cross Piece. Per doz.</i>	<i>With Cross Piece. Per doz.</i>
4½ x 6½ - 1½ inch Moulding and Gilt Insides....	\$2 75	\$3 35
6½ x 8½ - 1½ " " " "	3 17	3 62
8 x 10 - 1½ " " " "	3 50	4 00
10 x 12 - 1½ " " " "	4 00	4 50
11 x 14 - 1½ " " " "	4 75	5 25
13 x 16 - 1½ " " " "	5 75	6 25
14 x 17 - 1½ " " " "	6 25	6 75

The Novelty, Carved and Beaded are the leading styles of Rustic Frames made. Other styles to order at manufacturers prices.

Hollywood Frames.

NEW STYLES.

No. A, Card size.....per doz.	\$1 25	No. C, Victoria size.....per doz.	\$2 00
B, " "	1 75	A, Cabinet "	1 75
C, " "	2 00	B, " "	2 25
A, Victoria size.....	1 40	C, " "	2 75
B, " "	1 75		

Sherman Card Rustics.

PER DOZEN.

No. 1, Card size.....	\$0 90	No. 3, Victoria size.....	\$1 25
2, " "	1 00	1, Cabinet "	1 25
3, " "	1 10	2, " "	1 35
1, Victoria size.....	1 00	3, " "	1 50
2, " "	1 10		

Papier-Mache Frames.

FOR CARD PHOTOGRAPHS.

	<i>Per doz.</i>	<i>Per gross.</i>
Nos. 100-1, 100-2, 100-3, 100-5, 100-6, 100-16.....	\$0 70	\$6 00
No. 100-14.....	85	7 50
Nos. 151-2, 151-3.....	1 00	9 00

Fittings.

SQUARE AND OVAL—FIRST-QUALITY FRENCH CRYSTAL GLASS.

6½ x 8½.....per dozen	\$0 70	15x1.....per dozen	\$4 00
8 x 10	1 05	16x20.....	4 60
10 x 12	1 65	18x22.....	7 00
11 x 14	2 30	20x24.....	9 50
13 x 16	3 30	22x28.....	16 00
14 x 17	3 75	25x30.....	21 00

Picture Cord.

SUPERIOR QUALITY—PER PIECE OF 25 YARDS.

No. 1.....	\$0 45	No. 6.....	\$1 2
2.....	50	7.....	1 35
3.....	60	8.....	1 50
4.....	80	9.....	1 85
5.....	1 00	10.....	2 35

Cords and Tassels.

NEW STYLES OF FINE QUALITY—PER DOZ.

No. 1.....	\$2 50	No. 4.....	\$5 35
2.....	3 00	5.....	7 00
3.....	4 50	6.....	9 00

Oval and Square Back Boards.

PER 100.

SIZE.	OVAL.	SQUARE.	SIZE.	OVAL.	SQUARE.
6 x 8	\$0 85	\$0 80	14 x 17	\$ 3 50	\$3 25
7 x 9	90	80	15 x 18	4 00	3 75
8 x 10	90	80	16 x 20	4 75	4 50
9 x 11	1 25	1 15	17 x 21	5 50	5 25
10 x 12	1 30	1 10	18 x 22	5 75	5 25
11 x 14	2 00	1 90	20 x 24	6 75	6 25
12 x 15	2 50	2 20	22 x 27	8 50	8 00
13 x 16	3 00	2 75	25 x 30	10 00	9 50

In quantities less than one hundred, 15 per cent. added.

Screw Eyes.

PER GROSS.

No. 114	\$0 50	No. 107	\$1 25
113	60	103	1 40
112	75	5	1 80
111	85	4	2 10
110	90	3	2 75
109	1 00	2	3 50
108	1 15	1	3 75

The above constitute all the sizes necessary for hanging pictures, &c. A full stock kept on hand.

Picture Points.

$\frac{3}{4}$ inch..... 25 cents per pound.

The above are used extensively for tacking in the backs of picture frames, &c.

Brass Head Picture Nails.

PER GROSS.

1 inch	\$0 85	$2\frac{1}{2}$ inch	\$1 60
$1\frac{1}{4}$ "	95	3 "	2 10
$1\frac{1}{2}$ "	1 05	$3\frac{1}{2}$ "	2 70
$1\frac{3}{4}$ "	1 15	4 "	3 20
2 "	1 30		

Porcelain-Head Picture Nails.

PER GROSS.

Plain Gilt Rim.		Fancy Gilt Sides.	
No. 2, White, 2 inch	\$5 00	No. 5, White, 2 inch	\$5 75
2, " $2\frac{1}{2}$ "	5 50	5, " $2\frac{1}{2}$ "	6 00
3, " 2 "	5 25	5, " 3 "	6 25
3, " $2\frac{1}{2}$ "	5 50	6, " 2 "	6 25
3, " 3 "	5 75	6, " $2\frac{1}{2}$ "	6 50
4, " $2\frac{1}{2}$ "	5 75	6, " 3 "	6 75
4, " 3 "	6 00		

Department L.

PAPER AND VELVET PASSE PARTOUTS, FINE MATTS AND ELEGANT METAL AND VELVET FRAMES.

PASSE PARTOUTS.—Nothing completes the finish of the photograph more artistically than a neat Passe Partout or Matt. Photographers should take more pride in seeing their pictures properly put up in suitable mats, &c., than is generally the case. The neater a photograph is framed the better advertisement it will be. A very good idea is to put finished photographs temporarily in passe partouts and show them to the patron when the picture is called for. It will very often result in selling them frames, &c., which they otherwise could not have been persuaded to purchase.

White Flat Passe Partouts—Cheap.

4x5, Card opening	per 100,	\$3 50
4x5, " "	per doz.	40
6-8, Imperial	"	1 25

PASSE PARTOUTS.

STYLES.	Size of Opening.	1	2	3	4	5	6	7	8	9	10	11	12
Outside Measure.		Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.
5 x 6	Carte.	84	96	\$1 56	\$1 80	\$1 80	\$2 04	\$2 04	.....	.....	.....	.....	.....
5½ x 7	"	96	\$1 20	2 28	2 40	2 40	3 00	3 00	\$3 60	\$3 00	4 20	3 60	4 20
7 x 9	Imperial.	\$1 56	1 80	3 36	3 60	3 60	4 20	4 20	.....	.....	.....	4 80	.....
8 x 10	"	1 92	2 40	4 44	4 80	4 80	5 40	5 40	6 60	5 40	6 60	6 60	7 80
8 x 10	5 x 7	1 92	2 40	4 44	4 80	4 80	5 40	5 40	.....	.....	.....	6 60	.....
8 x 10	5½ x 7½	1 92	2 40	4 44	4 80	4 80	.....	.....	.....	.....	.....	6 60	.....
10 x 12	5½ x 7¼	2 52	3 12	5 40	6 00	6 00	6 60	6 60	8 40	6 60	8 40	8 40	9 60
10 x 12	6 x 8	2 52	3 12	5 40	6 00	6 00	6 60	6 60	.....	.....	.....	8 40	.....

MATTS.

STYLES.	1	2	3	4	5	6	7	8	9	10	11	12
5 x 6 Carte.	24	36	96	\$1 20	\$1 20	\$1 32	\$1 32	.....	.....	.....	.....	.....
5½ x 7 "	24	48	\$1 08	1 20	1 20	1 80	1 80	\$1 80	\$1 80	\$3 00	\$1 80	\$2 40
7 x 9 Imp.	36	60	1 56	1 80	1 80	2 40	2 40	.....	.....	.....	.....	.....
8 x 10 "	36	84	2 04	2 40	2 40	3 00	3 00	3 00	3 00	4 20	3 00	4 20
8 x 10 5 x 7	36	84	2 04	2 40	2 40	3 00	3 00	.....	.....	.....	.....	.....
8 x 10 5½ x 7½	36	84	2 04	2 40	2 40	3 00	3 00	.....	.....	.....	.....	.....
10 x 12 5½ x 7½	48	\$1 08	2 40	3 00	3 00	3 60	3 60	3 60	3 60	5 40	3 60	4 80
10 x 12 6 x 8	48	1 08	2 40	3 00	3 00	3 60	3 60	.....	.....	.....	.....	.....

DESCRIPTION.

- 1—Plain face, two gilt lines, white or tinted.
 - 2—Chagrin face, double, black and gilt lines, white or tint.
 - 3—Plain face, beveled, black and gilt lines, white or tint.
 - 4—Chag'n face, white face, black and g't lines, white or tint.
 - 5—Chagrin face, gilt bevel, white or tinted.
 - 6—Chagrin face, chagrin bevel, extra finish, white or tint.
 - 7—Chagrin face, cloth bevel, white or tinted.
 - 8—Chagrin face, gilt bevel, octic lines, white or tint.
 - 9—Plain face, rustic lines, white or grey.
 - 10—Plain face, gilt bevel, rustic lines, white or grey.
 - 11—Cloth face, gilt bevel, green or red.
 - 12—Chagrin face, gilt bevel, cloth inlaid, white or tint.
- †—Passe Partouts in styles 8, 11, and 12 are bound with good gold, all other styles with black.

Passe Partouts and Matts made to Order.

OUTSIDE MEASURE.	MATTs.											P. P. Finish		
	1	2	3	4	5	6	7	8	9	10	11	12	Each.	Each.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
5 1/2 x 7	5	7	15	15	18	18	18	18	20	25	20	25	20	25
6 1/2 x 8	5	8	15	18	20	20	20	20	20	25	20	25	20	25
7 x 9	5	10	18	20	25	25	25	25	25	30	25	30	20	30
8 x 10	6	12	20	25	30	30	30	30	30	35	30	35	25	35
10 x 12	8	15	25	30	35	35	35	35	35	45	35	45	30	45
11 x 14	10	18	30	35	40	40	40	40	40	50	40	50	35	50
12 x 15	12	20	40	45	50	50	50	50	50	65	50	65	40	65
13 x 16	13	25	45	50	60	60	60	60	60	70	60	70	45	70
14 x 17	15	30	50	55	65	65	65	65	65	80	65	90	50	75
15 x 18	18	35	60	65	75	75	75	75	75	90	75	90	55	80
16 x 20	20	40	65	70	85	85	85	85	85	100	85	100	60	85
18 x 22	25	45	70	85	100	100	100	100	100	115	100	115	65	90
20 x 24	30	50	75	90	115	115	115	115	115	135	115	135	70	95
21 x 26	35	55	85	100	135	135	135	135	135	155	135	155	75	100
22 x 28	40	60	90	100	150	150	150	150	150	175	150	175	80	105
24 x 30	50	90	125	150	200	200	200	200	200	225	200	225	85	110
26 x 34	75	120	150	200	250	250	250	250	250	300	250	300	90	115
29 x 42	100	150	200	250	300	300	300	300	300	350	300	350	95	120

To find price of Passe Partout:—Take price of Matt you wish, and add price of P. P. Finish of same size; for instance—1 Matt style 4, 10 x 12, price 30 cts. P. P. finish, 10 x 12, 30 c. Price of P. P. 60 cts., etc. etc.

All Passe Partouts larger than 13 x 16, are made with wood backing.

Prices of Show Matts made to Order.

OPENING.	1	2	3	4	5	6	7	11
	Each	Each	Each	Each	Each	Each	Each	Each
Carte.....	4	8	12	15	15	20	20	20
Cabinet.....	5	10	15	20	20	25	25	25
4 4.....	6	15	25	30	30	35	35	35

Explanation.

If you want a Show Matt 22 x 28, with 1 4-4 open, 18 Cartes and 4 Cabinet openings, style 2.

1 4-4 Style 2, @ 15 cts	\$ 15
4 Cabinet Style 2, @ 10 cts.....	40
18 Cartes Style 2 @ 8 cts.....	1 44

The Matt will cost \$1 99

To P. P. finish 22 x 28..... 1 75

The Passe-partout will cost \$3 74

Show Cards.

New Style.

OPENINGS, WITH GILT, BLUE, AND RED LINES.

Out. ide Measure.	Number of Openings.	Price each.
21x27.....	25 Cards.....	\$2 20
19x25.....	20 Cards.....	1 80
18x25.....	1 4-4 and 12 Cards.....	1 20
18x22.....	16 Cards.....	1 20
16x20.....	12 Cards.....	1 10
14x18.....	9 Cards.....	90
14x17.....	1 Imperial and 6 Cards.....	70
12x14.....	6 Cards.....	55
10x12.....	4 Cards.....	45

Gothic Style.

<i>Outside Measure.</i>	<i>Number of Openings.</i>	<i>Price each.</i>
21x27.....	1 4-4 and 12 Cards	\$1 80
18x22.....	1 4-4 and 8 Cards.....	1 50

The Celebrated English Style.

22x23, 9 Imperial Openings.....	\$3 50
22x28, 1 4-4 and 12 Cards.....	4 25

Plain Show Cards.

COLORED—GILT LINES.

<i>No. of Openings.</i>	<i>Price ea h.</i>
25 Cartes.....	\$1 00
16 ".....	75
12 ".....	65
10 ".....	60
9 ".....	55
6 ".....	50
4 ".....	25

Standard Picture Mats.

<i>Outside Meas.</i>	<i>Opening.</i>	<i>Price per doz.</i>
6½ x 8½.....	Imperial.....	\$ 75
8 x 10.....	".....	90
8 x 10.....	5½ x 7½.....	90
8 x 10.....	6 x 8.....	90
10 x 12.....	6 x 8.....	1 25

The Imperial size are Oval, Arch and Round Cornered. The larger sizes all Oval

Standard Passe Partouts.

<i>Outside Meas.</i>	<i>Opening.</i>	<i>Price Per doz.</i>
4 x 5.....	Carte	\$1 25
6½ x 8½.....	Imperial	2 50
7 x 9.....	".....	2 75
8 x 10.....	5½ x 7½.....	3 50
10 x 12.....	6 x 8.....	5 00

Silk Velvet Passe Partouts.

SIZE.	FIRST QUALITY.		SECOND QUALITY.	
	PER DOZ.	EACH.	PER DOZEN.	EACH.
1-6	\$ 12 00	\$ 1 10	\$ 8 75	75
1-4	18 75	1 65	14 25	1 35
1-2	24 00	2 25	18 75	1 65
4-4	46 00	4 25	36 00	3 25

Silk Velvet Stands.

OPENING.	OUTSIDE MEASURE.	B DOZEN.	C DOZEN.	D DOZEN.
1-6	4½ x 5½	\$ 20 25	\$ 24 40	\$ 24 40
1-4	6 x 7¼	22 50	26 25	26 25
1-2	6½ x 7½	26 25	31 50	29 25
Imperial.	6½ x 8½	30 00	36 00	33 00
"	7 x 9	32 25	38 25	36 00
4-4	8 x 10	36 00	42 75	40 50
4-4	9 x 11	40 50	46 50	45 00
4-4	10 x 12	45 00	51 75	48 00
7 x 9	10 x 12	49 50	56 25	49 00

B.—Lyons Silk Velvet, with Stand, Square outside.
C.— " " " Square, Gilt Edge outside.
D.— " " " Square Panelled.

Fine Velvet Standees, each.

MOROCCO EDGE, FITTED WITH PLATE GLASS, AND FRENCH PLATED RING.

1-6.....	\$1 75	1-2.....	\$3 00
1-4.....	2 50	4-4.....	4 50

Fancy Metal Frames, with Silk Velvet Matts,

OF BEST WORKMANSHIP AND LATEST DESIGNS.

Nos.	Price Each.
1 for card.....	\$1 00
2 ".....	2 00
6 ".....	3 50
10 ".....	3 30
15 ".....	4 00
17 ".....	1 75
18 ".....	3 00
21 ".....	4 25
30 for imp.....	3 30
31 " 5½x7½.....	5 75
32 ".....	5 75
33 ".....	5 75
35 " and 4-4.....	6 25
40 8x10 or 7½x9¼, for 4-4.....	4 50
41 8x10 or 7 x9 , for 4-4.....	6 00
41 8x10 or 7 x9 , for 4-4, no border.....	5 50
42 8x10 or 7 x9	4 75

Department M.

BACKGROUNDS AND ACCESSORIES.

The attention of the Photographic Public is called to the *New Styles of Rembrandt Landscape and Interior Backgrounds*, which have, during the past two years, made their appearance at the principal Galleries on this continent. They are original designs, soft and delicate in finish, of a beautiful gray neutral color and the masses of light and shade so disposed that they enable the Photographer to pose the subject in numberless attitudes.

The Bigelow Revolving backgrounds and Bendann Negative Grounds are, also, new and useful. In the line of accessories we have selected such as are of Artistic Merit. A fine Photo showing styles of Chairs, Tables and Monument, will be sent to those desiring to purchase. The price of the Woolen Grounds will be found reduced in consequence of the greater demand for them, deducting from these prices the special discount. The inducements in this and all other departments are worthy of consideration by those contemplating to purchase.

Woolen Backgrounds, either Light or Dark.

6x8.....	\$ 8 50	8x9.....	\$11 50
7x8.....	9 25	8x10.....	13 00
8x8.....	10 25	8x12.....	15 50

Painted Backgrounds.

Plain, any shade, per square foot.....	\$ 0 10
Landscape, per square foot.....	25
Interior, " " ".....	25
Vignette " " ".....	25
Rembrandt, " ".....	20
Side Slips " ".....	40
Large Imitation Rock.....	15 00
Medium " ".....	10 00
Small " ".....	4 00
Rustic Fence, Papier Mache.....	15 00
" Arbor, " ".....	20 00
Fire-Place, " ".....	15 00
Tree Stump, with Ivy.....	10 00
Manilla Grass.....	2 00
Artificial Ivy, per yard.....	2 00

Rembrandt and Vignette Background.

5x5 feet square, with most approved fixtures, and frame complete, in water colors.....	\$ 7 00
Same, in oil colors.....	10 00
Rollers and Fixing extra.	

Bigelow's Revolving Backgrounds.

Round.....	\$10 00
Square.....	6 00
Vignette, 42x44 inches.....	4 00

No charge for Boxing.

Van Riper's Patent Conical Background.

Price..... \$25 00. With Stand, \$27 50

Square Oil Grounds.

8x8.....	\$7 70	8x10.....	\$9 60
8x9.....	8 65	8x12.....	11 50

Special sizes a 12 cents per square foot.

Bigelow Curtain. Price, \$10.

Real Silk Curtains, 4x10.....	\$10 00
Table Cover for Jenny Lind Tables.....	1 50

No charge for Boxing.

Price of Photographic Furniture of the Very Best Quality.

Fantastic Monument.....	\$35 00
Variety Carved Arm Chair	35 00
Sarony Posing Chair.....	5 00
Miss Arm Chair.....	20 00
Infants' Arm Chair.....	19 00
Turkish Infants' Chair.....	13 00
Pharoah Chair, Revolving.....	23 00
" No. 2.....	21 00
" No. 3.....	12 50
" No. 4.....	15 00
Revolving Chair.....	17 50
No. 1 Chair.....	15 00
" 5 ".....	12 50
" 2 ".....	10 50

Infants' Chair.....	6 50
Childs' Chair.....	5 50
" Lounges.....	10 50
Sliding Top Stand.....	10 50

Boxing extra.

No 1 Coco Matting per yard.....	85
A Extra Coco Matting per yard	1 00
A Calcutta Coco Matting per yard.....	1 25

Oil Cloths and Carpets to order.

BENDANN BROS. BACKGROUND, NEGATIVES.

As a slight description may aid those wishing to purchase, we append it,

- No. 1. Part of Parlor, with exquisite design of flowers running over wall.
 - No. 2. A Balcony, with out-door view: vase of flowers on one side, grand column, with sunlight effect, on the other.
 - No. 3. Parlor, with windows one side and piano on the other.
 - No. 4. A grand Library, with column and curtain.
 - No. 5. Conservatory, with out-door distance.
 - No. 6. Part of Parlor, with picture on wall, and portion of mantel piece showing.
 - No. 7. A Room with magnificent Spanish screen. One of the most effective in the list.
 - No. 8. Suitable for Busts. Artistic effect of light and shade. Globe and books in corner.
 - No. 9. A Grand Room, with elaborate folding-doors, antique book case in corner. Beautiful effect of light and shade.
 - No. 10 Corridor: doors in distance, and writing table in corner.
 - No. 11 Original Drawing of a Room in one of the finest palaces in Paris.
 - No. 12. A Library Scene from Windsor Castle, with large window, and exquisite effect of sunlight streaming in.
 - No. 13. Grand Drawing-Room, introducing a bay window, beautiful effects in lights and shade, statuary, etc.
- Nos. 4 and 5 combined—also No. 10—on one 8 x 10 plate, form two distinct grounds for imperial "cartes."
- The 8 x 10 size also answers for imperial "cartes" and 4-4.
- The 11 x 14 size answers for 10 x 12 as well.
- The 17 x 20 size answers for 14 x 17 and for 11 x 14 groups, crossways—thus covering all sizes in Photography, excepting small "cartes."
- We also furnish designs crossways on Plate, suitable for groups, etc.

PRICE OF NEGATIVES.

On heavy French plate glass, not liable to break.

8 x 10.....	\$3 50 each
11 x 14.....	5 00 "
17 x 20.....	7 50 "

Department N.

TRADE PHOTOGRAPHY.

In this branch we have recently been compelled to employ additional artists, and are now prepared to fill all orders with dispatch, and with our usual excellence. We employ the very best talent only, and give a better margin for profit in favor of the photographer than any other house can offer. This class of work any photographer may secure orders for, as will be seen by reading in this book article on *Trade Photography*. Give us a trial and be convinced, that it is your interest to patronize us, which will at the same time be the means of increasing your trade for fine work.

Making Negatives from any Picture, either Enlarged or Reduced.

Making 1-4 Size, each.....	\$0 50
" 1-2 " ".....	65
" 4-4 " ".....	75
" 8-10 " ".....	1 00
" 10-12 " ".....	1 50
" 11-14 " ".....	2 00
" 14-17 " ".....	4 00

Contact Printing, on Plain or Albumen Paper, when Negatives are Furnished.

	<i>Single.</i>	<i>Per doz.</i>
For Printing 14x17 Mounted.....	\$1 00	\$9 00
" " 11x14 ".....	75	6 00
" " 10x12 ".....	65	5 00
" " 8x10 ".....	50	4 00
" " 4-4 ".....	35	3 00
" " Imperial ".....	00	1 75
" " Cards ".....	00	60

The Prints are uniformly toned, neatly mounted, and ready for delivery at the above price. Good negatives will yield fine prints.

Solar Printing.

We have one of the finest Solar Instruments, combining all the latest modern improvements in the Solar Camera, together with extensive water works for the thorough and complete washing of the prints. Solar negatives sent either by express or mail should be carefully packed, prepaid, and accompanied with the price of the work to be done. Prints can be returned by mail, unmounted, free of expense. The negatives will be returned or preserved for further orders. All work will be finished as promptly as the weather will permit. Have all solar negatives thin, clear and unvarnished, and send them with full directions as to what sizes and style of prints wanting.

Paper Printing.

PRICE WHEN NEGATIVES ARE FURNISHED.

	<i>Unmounted.</i>	<i>Mounted.</i>
4x4 and 8x10, Plain or Albumen Paper.....	\$0 75	\$0 85
11x14 and 13x16, " " ".....	1 50	1 75
18x22 Albumen Paper.....	2 50	2 75
18x22 Plain ".....	2 00	2 25
20x24 and 22x26, Drawing Paper.....	2 50	3 00
25x30 Drawing Paper.....	3 00	3 50
29x36 and 30x40 Drawing Paper.....	5 00	5 75

Canvas Printing,

PRICE WHEN NEGATIVES ARE FURNISHED.

	<i>Price when canvas and stretcher are furnished.</i>	<i>With square canvas on stretcher.</i>	<i>With oval canvas on stretcher.</i>
12x14.....	\$1 50	\$1 75	\$3 25
14x17.....	2 00	3 50	4 00
17x21.....	2 50	4 25	4 75
20x24.....	3 00	5 00	5 50
22x27.....	3 00	5 25	5 75
25x30.....	4 00	6 50	7 25
29x33.....	5 00	8 50	9 25
30x40.....	5 00	9 00	9 75

Porcelain Printing by Contact.

PRICE WHEN NEGATIVES ARE FURNISHED.

1-6 Oval Plate, each.....	\$0 75
1-6 Square Plate, each.....	60
1-4 " " ".....	1 00
1-2 " " ".....	1 50
4-4 " " ".....	2 50

Retouching Negatives.

1-4 size, each.....	\$0 50
1-2 " ".....	75
4-4 " ".....	1 00
8-10 " ".....	1 25
10-12 " ".....	1 50
11-14 " ".....	1 75

For Artist's Work,

(WHEN PRINTS ARE FURNISHED.)

<i>For Tinting Porcelain Pictures.</i>		<i>For Coloring Ditto.</i>	
		<i>Finely Painted.</i>	<i>Col'd.</i>
1-6 size, each.....	\$1 00	1-3.....	\$4 00
1-4 " ".....	1 50	1-4.....	5 00
1-2 " ".....	2 00	1-2.....	6 00
4-4 " ".....	3 00	4-4.....	7 00
			5 00

We would advise that parties order cases or frames for Porcelain Pictures, as they should be put up with great care to protect them from dust and breakage. No charge is made to set them in such cases or frames as may be ordered for them.

For Tinting Albumen Paper Photographs,

(WHEN PRINTS ARE FURNISHED.)

	<i>Extra finish.</i>	<i>Regular finish.</i>
Carte de Visite.....	\$0 50	\$0 25
Imperial.....	1 00	75
4-4.....	1 50	1 00
8-10.....	2 00	1 50
10-12.....	3 00	2 00
11-14.....	4 00	3 00

Fine Pastel Work,

WHEN PRINTS ARE FURNISHED AND MOUNTED.

18x22, Head and Bust.....	\$25 00
22x28, " ".....	30 00
25x30, " ".....	40 00

Pastel Pictures should be ordered framed, as they cannot be securely packed or sent unframed.

For Fine Oil Painting,

WHEN PRINTS ARE FURNISHED ON CANVASS.

	<i>Extra finish.</i>	<i>Regular fin'h.</i>
12x14.....	\$18 00	\$13 00
14x17.....	20 00	16 00
17x21.....	25 00	20 00
20x24.....	33 00	25 00
22x27.....	38 00	30 00
25x30.....	45 00	35 00
29x33.....	55 00	45 00
30x40.....	65 00	55 00

For Coloring Plain Paper Photographs, Either in Water Colors or in India Ink, Regular Finish.

(PRICE WHEN PRINTS ARE FURNISHED.)

<i>Size.</i>	<i>Vignette.</i>	<i>Full Print.</i>	<i>Copy Vignette.</i>	<i>Copy full prt.</i>
4-4.....	\$ 2 00	\$ 2 50	\$ 2 50	\$ 3 00
8-10.....	2 50	3 00	3 00	4 00
10-12.....	3 50	4 00	4 50	5 00
11-14.....	4 00	4 50	5 00	6 00
13-16.....	5 00	5 75	6 00	7 00
14-17.....	6 00	6 50	6 50	8 00
18-22.....	7 00	10 00	8 00	12 00
22x28.....	8 00	12 00	12 00	15 00
25x30.....	10 00	15 00	13 00	18 00

Special prices for groups.

If a fancy scenery background is desired, the price will be from ten to twenty per cent. higher.

In ordering, please specify which is preferred, Ink or Colors; the price is the same. A gentleman's picture is more suitable in India Ink, while Ladies and Children's Photos look best Colored.

For Coloring Plain Paper Photographs, Either in Water Colors or in India Ink, Extra Finish.

(PRICE WHEN PRINTS ARE FURNISHED.)

At the request of numerous patrons who have received specially fine work by allowing an advance price on the regular list, we are induced to quote the price of Extra Fine Finish or Special Artist's Work, as follows:

	<i>Vignette.</i>	<i>Full Print.</i>	<i>Copy Vignette</i>	<i>Copy full prt.</i>
4-4	\$ 3 50	\$ 3 50	\$ 3 75	\$ 4 00
8-10.....	4 00	4 50	4 25	4 75
10-12.....	5 00	5 50	6 00	6 50
11-14.....	5 50	6 50	7 00	7 50
13-16.....	6 50	7 50	8 50	9 50
14-17.....	8 00	10 00	10 00	11 00
18-22.....	10 00	15 00	12 00	17 00
22-28.....	12 00	20 00	16 00	23 00
25-30.....	15 00	25 00	18 00	28 00

Special prices for groups. A suitable Mat is furnished over the photographs when colored in extra finish, without charge.

In sending directions please specify "Extra" or "Regular" finish. We have now the best artistic talent in the country engaged on our work, and the increasing business testifies to the general satisfaction rendered all who favor us with their orders in this department.

The Photographic Work is safely to hand, and proved very satisfactory. Preparing more work to send you.
 To R. WALZL, Baltimore. C. M. VAN ORSDELL,
 Wilmington, N. C.

I received the First Premium at our County Fair on the Photographic and Artist's Work executed through your Trade Artistic Department.

To R. WALZL, Baltimore. F. L. HOWARD,
 Davenport, Iowa.

Directions.

In sending Negatives or Pictures to copy, please send them carefully packed in Wooden Boxes by Express, Freight prepaid, AND ACCOMPANIED BY THE PRICE OF THE WORK TO BE EXECUTED.

If the Picture is to be Colored, please specify the color of Hair, Eyes, Dress, (and, if possible, send a sample of the Hair,) and in every case send the Picture along from which it was copied; or if taken from life, send a print of the Head

from the same Negative, as a guide for the Artist. If you desire a Copy enlarged to a 8-10 Vignette, and only send us the Picture which your customers wish to have copied, the price will be—

For Making Negative, 8-10.....	\$1 00
“ “ Print, 8-10.....	50
“ Artist's work on Vignette, "Regular" finish.....	3 00

Or \$5 75 in "Extra" finish..... \$4 50

To this will be added the price of Frame such as you may select from the various Styles noted in the Frame Department. If the Picture is ordered Framed, it will be returned ready for delivery, giving no labor or loss of time, and the work in every case will be first-class. This arrangement will enable Photographers to accommodate all their customers with large work, and allow them a liberal profit.

Those sending Solar Negatives should not have them intense, a delicate Negative is the best; never intensify a Solar Negative. Clear it with strong Cyanide, and use thin Collodion; do not varnish Solar Negatives. In sending them pack securely and give full directions.

If copies are desired from a picture not very bright or perfect, it is best to re-touch the negative, which will then yield clear prints; this is only necessary where several duplicates are wanted, or when no artist's work is desired on the positive.

All work will be promptly executed, but we will not hurry it; we therefore request full time. It usually takes about five days to finish a large colored picture in the best style. Oil Painted Photos require a few days longer for the colors to become perfectly dry. Plain contact printing is done within one or two days from receipt of order.

Solar printing will be done as soon as the weather will permit. For solar printing a bright, clear day is required. Negatives for Porcelain prints should be delicate in the shades, and not as intense as for paper printing. Also send full directions if to be colored; also, if to be cased or framed, specify the desired style. In sending pictures to copy, please specify if a vignette or full print is required.

As the Freight, etc., will cost as much on one picture as on more, it is best to send always several at a time. When the print is colored and no frame wanted, it can be returned by mail if not larger in size than 11x14. Larger or more valuable ones are safest by express.

Plain Specimen Photographs from Life.

Cartes de Visite or Vignettes, per dozen.....	\$1 00
“ Imperial full fig. or Vignettes, per dozen.....	2 00
4-4 “ “ “ “	4 00
8-10 “ “ “ “	5 00
10-12 “ “ “ “	7 00
half sheet Solar Print, mounted, each.....	1 75
18-22 “ “ “ “	2 75

These can be colored, adding price of coloring as per list. In ordering please specify the style desired.

Photographic Studies, 12 positions, per sheet.....	\$1 00
Cartes de Visite size Photos, by Gurney, per dozen.....	1 50
“ “ “ “ Sarony “	1 50
“ Imperial “ “ “ “	4 00
“ “ “ “ Gurney “	3 50

Colored Specimen Photographs.

4-4 each.....	\$ 3 00
8-10 “	4 00
11-12 “	5 00
11-14 “	5 50
14-17 “	6 50
18-22 “	10 00

Department O.

Stereoscopes and Stereoscopic Views.

The popularity of Stereoscopic Views has become so great that all photographers would do well to keep them for sale. They are an untiring source of enjoyment to your patrons, when waiting, and a continual and most excellent advertiser of the wondrous achievement of the art. They very often secure for the photographer very profitable engagements. With a very little exertion on the part of the photographer the stereoscope and views may be introduced, and prove to be one of the most profitable branches of his business. Many are situated where there are scenery; which, if carefully photographed, would meet with a ready sale. A few choice views, by eminent operators, to study from, and a little experience would soon enable a determined photographer to produce very good results. For the holiday trade, nothing can be offered which will be more appreciated, or meet with a more ready sale. Our stock of views and scopes are always very extensive, and includes the productions of all meritorious operators both in this country and Europe. All new novelties, new series, &c. are added to our assortment as soon as they are ready for the market. Parties ordering from us, and leaving it to us to make proper selections, will please inform us the purpose desired for, and may be assured of being pleased

with our selection. Our facilities for securing the most interesting views are unequalled, as we are in constant communication with all the leading operators. We guarantee to always send perfect and clean prints, and can supply any that are made.

Hand Stereoscopes—Holmes' Pattern.

ALL WITH SQUARE GLASS.

	<i>Price per doz.</i>	<i>Price each.</i>
No 1, Black Walnut, Embossed Hood.....	\$ 9 50	85
2, “ “	11 50	1 00
A 1, “ Walnut Hood, new style. .	13 00	1 10
3, “ Polished Rosewood Hood....	15 00	1 35
4, “ “ Tulip “	16 50	1 50
5, “ Rustic Rustic “	16 50	1 50
6½, “ Velvet “	21 00	2 00
6, “ Pol. Rosewood, Ex. Finish..	18 00	1 65
7, Mahogany Polish, Oval Hood.....	23 00	2 40
8, Rosewood “ “	28 00	2 50
9, Mahogany “ Tulip “	30 00	2 75
10, Tulip “ “ “		
Silver Plated and Burnished Trimmings, very fine.	42 00	3 85

Improved Folding Stereoscopes,

METAL SLIDE, GILT OR SILVERED, IN BOXES.

	<i>Price per doz.</i>	<i>Price each.</i>
No. 14, Black Walnut or Cedar, Oval Em. Hoods..	\$ 24 00	2 15
15, “ Oval, Rosewood “ ..	30 00	2 75
16, Cedar “ Tulip “ ..	33 00	3 00

Stereoscopes with Stands.

ALL WITH SQUARE GLASS.

	<i>Price each.</i>
No. 18, Black Walnut Stands, Oval Rosewood Hoods.....	\$ 3 00
19, “ “ “ “ Tulip “	3 00
20, Mahogany Polish, “ Mahogany “	4 00
21, Rosewood “ “ Rosewood “	4 50
22, Mahogany “ all Tulip (No. 10), Oval “	5 75

Patent Revolving Stereoscopes.

No. 26, Parlor, Black Walnut for 48 Paper Views, each.....	\$ 12 00
27, " " " 95 " "	21 00
28, " Rosewood " 48 " "	16 75
29, " " " 96 " "	24 50

Becker's Patent Revolving Stereoscopes.

LIBRARY BLACK WALNUT

No. 30, For 72 Paper Views, 1 pair Lenses, price each.....	\$ 30 00
31, " 144 " 2 " " "	35 00

Gothic (New) Black Walnut.

No. 32, For 72 Paper Views, 1 pair Lenses, price each.....	\$ 33 00
33, " 144 " 2 " " "	40 00
34, " 144 " 2 " " Mov. G'd Glass... ..	45 00

Gothic Curled Black Walnut, Engraved and Gilt.

No. 35, For 100 Paper Views, 1 pair Lenses, price each.....	\$ 55 00
36, " 200 " 2 " " "	66 00

Table Curled Black Walnut, on Stand, Gothic Style.

	<i>Price each.</i>
No. 37, For 300 Paper Views, 2 pair Lenses.....	\$ 110 00
38, " 300 " 2 " " Eng. and Gilt... ..	125 00

Parlor Rosewood, Gothic Style.

No. 39, For 72 Paper Views, 1 pair Lenses, price each.....	\$ 42 00
40, " 144 " 2 " " "	48 00

Table Rosewood, on Stand, Gothic Style.

No. 41, For 300 Paper Views, 2 pairs Lenses.....	\$ 110 00
42, " 300 " 2 " " Eng. and Gilt.....	125 00

Graphoscopes.

This useful and highly ornamental favorite, in addition to stereoscopic views, exhibits, by means of a powerful single lens, large photographs, with something of a stereoscopic effect. Photographers who have the graphoscope find many advantages, not only in the sale of the instrument itself, but also in the increased demand for large portraits of superior excellence, and large local views. People of taste and means are always delighted with them. There are three sizes, in French polished walnut, inlaid with satin wood Price, No. 2, \$28 00; No. 3, \$45 00; No. 4, \$55 00.

Stereoscopic Views.

ORIGINAL FOREIGN PRODUCTION OF SPECIAL SELECT IMPORTATION.

<i>Maker.</i>	<i>Scenery.</i>	<i>Per gross.</i>	<i>Per dozen.</i>
Wilson's.....	Scotch.....	\$30 00	\$2 75
Hudson's.....	Irish.....	29 00	2 75
Maer's.....	Irish.....	29 00	2 75
Bedford's.....	Wales.....	29 00	2 75
York's.....	Animals.....	29 00	2 75
York's.....	London.....	29 00	2 75
Blanchard's.....	London.....	29 00	2 75
Pumphrey's.....	London.....	29 00	2 75
Thames'.....	London.....	29 00	2 75
Good's New Series.....	Eastern.....	33 00	3 25
Rustic Scenes.....	Old England.....	33 00	3 00
English Life and Scenery.....		33 00	3 00
"B".....	Paris.....	9 00	85
"G".....	Paris.....	12 00	1 10
Instantaneous.....	Paris.....	30 00	2 75
War Views.....	Paris.....	30 00	2 75
France.....	French.....	30 00	2 75
Holland and Belgium.....		30 00	2 75
England's.....	Swiss.....	30 00	2 75
Braun's.....	Swiss.....	30 00	2 75
England's.....	Tyrol.....	30 00	2 75
England's.....	Rhine.....	30 00	2 75
Assorted.....	Germany.....	28 00	2 75
New.....	Germany.....	33 00	3 00
Berlin.....	Germany.....	25 00	2 25
J. A.....	Italy.....	30 00	2 75
J. A.....	Spain.....	28 00	2 75
J. A.....	Holy Land.....	39 00	3 50

Good's.....Holy Land.....	39 00	3 50
Gibraltar.....	28 00	2 75
St. Petersburg.....	35 00	3 25
International Exhibition.....	35 00	3 25
Novelties.....	33 00	3 00
England's Statuary.....	28 00	2 75
" Artistic.....	39 00	3 50
" Cabinets.....	39 00	3 50
English Belles.....	39 00	3 50
Imperial Palaces.....	39 00	3 50
Berlin Belles.....	39 00	3 50
German Studies.....	33 00	3 00
German Groups.....	39 00	3 50
Thiebauld's Groups.....	33 00	3 00

Fine Foreign Colored Views.

	<i>Per gross.</i>	<i>Per dozen.</i>
English Colored Originals, (Comic).....	\$33 00	\$3 00
" " Copies, " 	24 00	2 25
Game, Colored.....	33 00	3 00
Operas, " 	35 00	3 25
Belles, " 	4 75	4 75
Berlin Groups, Colored.....	4 75	4 75

Superb Illuminated Scenery.

FOREIGN, RICHLY COLORED.

	<i>Per dozen.</i>
Surprises, splendid effects of Illumination.....	\$4 75
Diabes, " " 	3 00
Interior and Groups, splendid effects of Illumination.....	3 25
Operas, " " " 	5 25
Portraits, " " " 	4 75
Paris Ruins, " " " 	4 75
Lamys, " " " 	5 25

American Views.

	<i>Per gross.</i>	<i>Per dozen.</i>
Assorted American Jobbing Views.....	\$ 7 50	\$0 75
Copies Foreign " " 	7 50	75
Niagara, latest and finest made.....	15 00	1 35

Watkins Glen, latest and best made.....	13 50	1 25
White Mountains.....	13 50	1 25
Baltimore, Old Series.....	10 50	1 00
" New " Artistic Size.....	18 00	1 50
Washington, Phila., N. Y., Boston, Artistic Size	18 00	1 50
Western Scenery and Pacific R. R.....	15 00	1 35
Hurst's Natural History of Animals, (colored) ..	.....	3 75
Lake George, Stoddard's.....	18 00	1 65
Weller's Plain Groups.....	15 00	1 35
Weller's Colored Groups.....	30 00	2 75
Anthony's Assorted American.....	12 00	1 10
" Instantaneous.....	14 00	1 25
" Gems.....	15 00	1 35
Gems of Statuary.....	13 50	1 25
Anthony's Assorted Colored.....	24 00	2 25
James' Views of Holy Land.....	18 00	1 50
Moulton's Yosemite Valley & Mammoth Trees	13 50	1 25
Mammoth Cave.....	24 00	2 20
Colored Groups, B.....	23 00	2 10
American Beauties.....	27 00	2 50
Chicago After the Fire.....	15 00	1 35

Other views furnished at lowest trade prices.

In our new premises we have every facility for the proper arrangement and selection of views, importing and purchasing only the finest quality of the several kinds. Parties ordering can rely on receiving a carefully selected and interesting series. The special discount, if applied to these prices, will make them reasonable beyond all competition. A trial order in this department is respectfully solicited.

Department P. STEREOPTICONS.

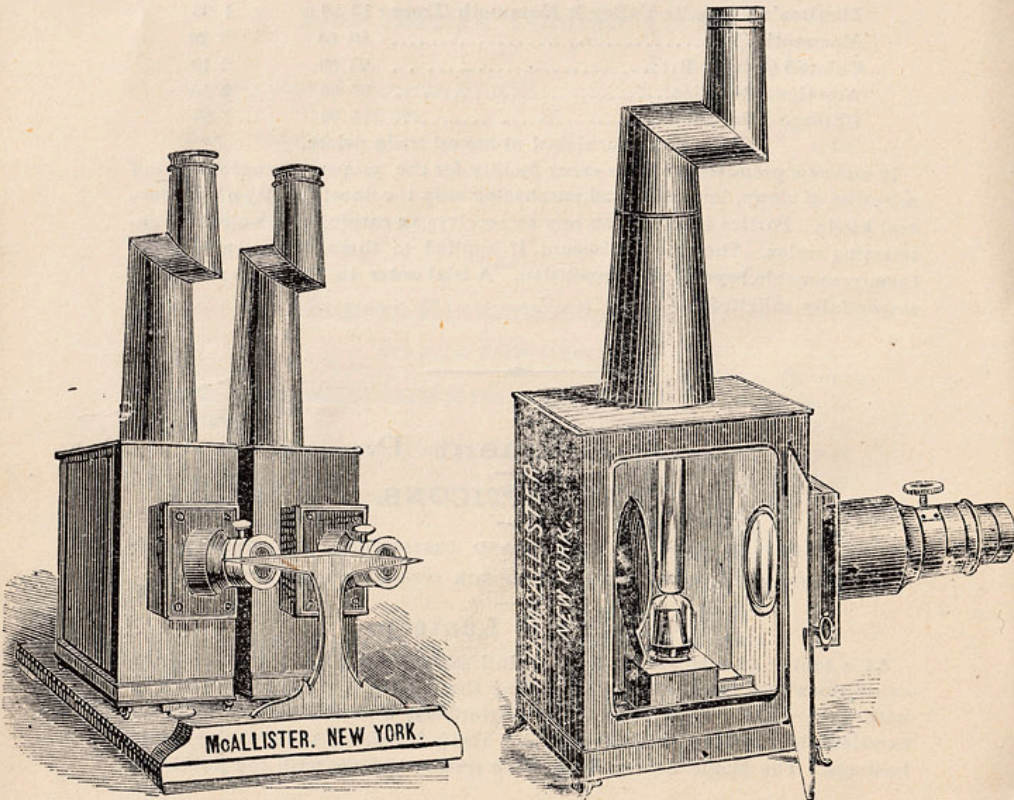
LATEST IMPROVED MAGIC LANTERNS, AND ARTISTICALLY COLORED PHOTOGRAPHIC VIEWS, SINGLE AND FOR DISSOLVING EFFECTS.

The Magic Lantern.

As a source of revenue during the dull season, many photographers hold exhibitions with the magic lantern during the evenings. This is specially so with very many of our itinerant photographers, who are indeed doing an excellent business in this way, besides also advertising their photographic business. The Magic Lantern is growing greatly in favor with the public, as

they begin to realize how truly valuable an agent the lantern is in exhibiting every scene, manners, customs, etc. true to nature; making it therefore a valuable instructor, valuable to all classes. The Lantern has been adopted in many schools with great success. More may be taught the young of the manners, customs and scenes of foreign lands, in a few exhibitions by the Lantern, than by months of close application to study. Photographers who have much leisure time might devote some attention to this branch, as with a little they could very soon command a very respectable revenue. It will be seen by our list that magic lantern slides are, while better in quality, no more in price than at any former period.

While we can furnish any of the Oxy-Hydrogen and Oxy-Calcium Stereopticons, together with all the chemical preparations necessary for their working, we again present only the more simpler and safer of the latest improved magic lanterns; from experience finding them to answer all purposes for public and private exhibitions, and being perfectly free from dangerous explosions and simple in their use.



DISSOLVING VIEW APPARATUS No. 426.

IMPROVED SINGLE LANTERN No. 433.

Dissolving View Apparatus.

WITH COAL OIL LAMPS.—(See Cut.)

The Lamps are with Circular Argand Burners and Reflectors, and are far superior to those formerly used.

- No. 425.—Japan'd Body 4 in. Conds'rs, brass rack, the best..\$ 75 00
- 427.— “ “ 3½ inch Condensers brass rack.... 65 00

Improved Phantasmagoria Magic Lanterns,

WITH COAL OIL LAMPS.—(See Cut.)

The Lamps are with Circular Argand Burners and Reflectors, and are far superior to those formerly used.

- No. 430.—Japan'd Body, 4 in. Conds'rs, brass rack, the best..\$ 35 00
- 432 — “ “ 3½ inch Condensers, brass rack.... 30 00

Every Lantern and Stereopticon sold by me is fitted with McAllister's New Slide Spring and Stop, by which the sliders are securely held in the central line of the lenses; an invention simple in construction, but the great importance of which is acknowledged by all who have seen it.

Marcy's best quality Sciopticon complete, with coal oil lamp, \$45 00

Photographic Slides.

In the matter of Slides, we present only those of choice and interesting objects and views, and in each case send perfectly finished ones. There are now in the market many of little or no interest except in the name of them; and it is here we have gained so many costumers to this department, through our efforts in sending out only those which are of value and entertaining, to an intelligent and appreciative audience. For an exhibition of several hours duration about forty pictures are required. Space prevents giving the name of each view, so we only give the title under which they come; and persons leaving the selection to us can feel assured of receiving the most interesting of each kind.

Each View, except when otherwise described, is 3 inches in diameter, and is mounted separately, in a mahogany frame of 4 inches wide and 7 inches long.

There are a great number of slides, but the following are the most desirable:

Old Testament Illustrations, finely colored, per slide..	....	\$2 75
New “ “ “ “	.....	2 75
Views in the Holy Land, “ “	.....	2 75
Illustrations to the Text of the Holy Bible, Finely Colored, per slide.....	.....	2 75
Views of Interest in Different Parts of the World, finely colored, per slide.....	.....	2 75
Set of Twenty Illustrations of Ancient Greece, finely		

colored, per slide, \$2 75; per set.....	\$45 00
Set of Twenty Illustrations of Ancient Rome, finely colored	
per slide, \$2 75; per set.....	45 00
Illustrations of the Chinese Empire, finely col'd, per slide..	2 75
Illustrations of Important Events in American History,	
Finely colored, per slide.....	2 75

Portraits of Celebrated Persons.

Finely colored, per slide..... \$2 75
 These show well with any of the Lanterns, and include Portraits of our Presidents, from the 1st to the 17th.

Views in Sets, Conveying Moral Lessons.

Finely colored, per slide.....	\$2 75
Embracing under this title the following views:—	
The Pilgrim's Progress, 12 slides to a set.....	\$33 00
The Drunkard's Progress and End, 12 slides to a set.....	33 00
The Bottle, 8 slides to a set.....	22 00
The Gambler's Career, 6 slides to a set.....	16 50
The Ten Commandments, 12 slides to a set.....	33 00
The Voyage of Life.....	11 00
The Ill Fated Ship, 6 slides to a set.....	16 50
New Tale of a Tub, 7 slides to a set.....	19 25
The Four Seasons, 4 slides to a set.....	11 00

Miscellaneous Pictures.

Finely colored, per slide.....	\$2 75
Copies of choice pictures of Old and New Masters.	
Illustration to Milton's "Paradise Lost," finely colored,	
per slide.....	\$2 75

Dissolving Views.

Photographed from fine engravings, selected and executed with great care, so as to produce a charming effect in dissolving.
 These cannot be used with a single Lantern, as it requires a pair of Dissolving Lanterns, or Stereopticons to produce the dissolving effect.
 These come in sets of two slides each, price per set..... \$5 50

Stereoscopic Views of World-renowned Places of Interest.

TAKEN FROM NATURE, AND PREPARED FOR THE STEREOPTICON.

Foreign, each	\$2 00
American, each	1 00

Chromatropes, or Artificial Fire Works.

The Geometrical Chromatrope, each.....	\$5 00
The Washington " "	5 00
The Good-Night " "	5 50

Fine Slides With Revolving Motion.

The Fountain.....	\$5 00
The Snow Slide, representing falling snow.....	4 50
Windmill, with revolving fan.....	5 00
Ratcatcher, swallowing rats.....	4 50
Mount Vesuvius Eruption, throws out fire and smoke.....	4 50

Fine Paintings with Slip Motion.

Moving Waters, per slide each.....	\$2 00
Good-Night, " "	3 50

Select Painted Comic Slip Slides, Giving Laughable Motion to the Figures.

Fine Assortment, 1st quality, per slide.....	\$1 75
" " 2d " "	1 25

Paintings with Levers, Giving Laughable Motion to the Figures.

Per Slide.....	\$2 50
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Dioramic Paintings with Moving Figures.

Andernach on the Rhine, per slide.....	\$4 00
Rome on the Tiber, ".....	4 00
Tower of London.. ..	4 00
Menagerie.....	4 00
Stag Hunt.....	4 00
Mad Bull.....	4 00
Israelites Crossing the Red Sea.....	6 00
Noah and the Animals Entering the Ark.....	6 00

Statuary and Bas Reliefs.

Per Slide, plain.....	\$1 50
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Illustrations of Astronomical Science.

A Series of Twenty Fine Colored Photographic Views, with an Original Descriptive Lecture, Compiled Expressly to Accompany them.

These views are faithful Photographic copies from the works of the most celebrated modern astronomers, and are finer as works of art, and more scientifically truthful than any that have been heretofore exhibited to the public..... \$35 00 per set.

Illustrations of Botanical Science.

Series of Twenty Beautifully Executed Photographic Views, Appropriately Colored and Designed to Illustrate Prof. Asa Gray's Popular Work, "How Plants Grow."

In Box, with copy of "How Plants Grow," by Asa Gray, M. D., Professor of Natural History Harvard University..... \$35 00 per set.

Illustrations of Anatomical and Physiological Science.

A Series of Twenty Beautifully Executed Photographic Views, Appropriately Colored, in a Box with Descriptive Text Book.

These views have been prepared under the direction of an experienced physician, and are especially designed to meet the demands of teachers or those wishing to present the subjects to an intelligent audience..... \$35 00 per set.

Illustrations in Geological Science.

A Series of Twenty Beautifully Executed Photographic Views; Appropriately Colored where Necessary.

In Box, with a copy of Prof. Wells' celebrated work on Geology, in which will be found a full description of each view..... \$35 00 per set
The attention of Teachers is particularly called to this series.
Muslin Screens, with Loops, nine feet square..... \$8 00

Outfit, First Class.

For the convenience of those desiring an outfit to exhibit through the country or at home, we make the following estimates:

1 No. 425 Dissolving View Apparatus.....	\$ 75 00
1 set Scientific Slides and Description, 20 slides. Specify in ordering which of the sets are preferred.....	35 00
Chromotropes, 2 slides.....	10 00
Dioramic, 2 slides.....	8 00
Assorted Colored Slides, 12 slides.....	33 00
Comics and Statuary, 12 slides.. ..	18 00
Lever Paintings, 2 slides.....	5 00
Renowned Places of Interest, 6 American, 6 Foreign.....	18 00
Dissolving Views, 6 sets, 12 slides.....	33 00
Muslin Screen.....	8 00

Boxing, No Charge.

\$243 00

More views can be added or some deducted, to suit the purchaser.

The Dissolving Views have superior advantages over the Single Lanterns.—The novel effect of "dissolving" one city into another—New York into London, London into Paris, Paris into Rome, etc., the exterior of a building into the interior of the same building, changing a smiling summer landscape to a snowy winter scene, etc., etc., and all in so gradual a manner as always to leave a picture before the audience—produces a magical effect that never fails to please.

Outfit, Second Class.

Magic Lantern, No. 430.....	\$ 35 00
1 Set Scientific Slides and Description.....	35 00
1 Chromotrope.....	5 00
1 Dioramic.....	4 00
20 Assorted Colored Slides.....	55 00

6 Comic and Statuary.....	\$ 9 00
1 Lever Painting.....	2 50
Renowned Places of Interest, 6 American, 6 Foreign.....	18 00
Muslin Screen.....	8 00
Boxing, No charge.	
	<hr/> \$171 50

More or less Views may be added or deducted to suit the purchaser.

Those taking the advantage of our special discounts will receive their Lanterns and Views at the cheapest possible prices, with the assurance that they also receive only superb slides of the various kinds ordered.

We have printed full instructions "how to use the Lantern," which accompanies each order. To be sure of receiving the best in that line, address your orders to

RICHARD WALZL'S
NATIONAL EMPORIUM,
Baltimore, Md.

As all orders to this department are accompanied with the funds, the special discount will bring the prices to the lowest possible figures, with the advantage of a superior selection of views.

Boys' and Girls' Magic Lanterns,

In Black Japanned Case and Packing Box, with Six Long Views, on Double Glass Sliders. Humorous subjects brilliantly colored. Two Revolving Views to produce the "Chinese Fireworks." One Comic View, with Life-like Movement to the Figure.

No. 1, with Condensing Lenses 1 1/4 inch diameter.....	\$ 6 00
2, " " 2 "	7 00
3, " " 2 1/4 "	10 00
4, " " 2 1/2 "	12 00

The larger the Condensing Lenses are, the more light can be condensed from the Lamp, and the pictures more highly magnified.

Household Microscopes.....	\$5 00
A Collection of Forty-eight Interesting Objects of Natural History.....	5 00

Error on page No. 164. The cut of Dissolving View Apparatus is the No. 425—not 426.

To be sure of securing the very best Stereopticons and interesting and select Slides, see the order addressed to

RICHARD WALZL,
43 N. Charles Street,
Baltimore, Md.

Department R.

Miscellaneous and Novelties.

Albumen Water Colors, per box of 12 colors.....	\$1 25
" " " " bottle.....	15
Blue Frosting, per can.....	1 00
Cake Water Colors and Tube Oil Colors at lowest prices.	
Diamonds, Ebony Handle, with Key.....	3 50
" Ivory " "	5 50
Dry Colors, Anderson's Fitted, per box.....	1 50
" " " per single box.....	10
Dusters, Camel's Hair, 1 1/2 inch.....	25
" " " 2 "	35
" " " 2 1/2 "	42
" " " 3 "	50
Filtering Cotton, per bundle.....	25
Filter Folder.....	75
Gold and Silver Saucers, small, each.....	10
" " " medium, each	18
" " " large, each.....	25
Hydrometers.....	75
Locket Shears.....	50
Paste Brushes, 1 inch.....	25
" " 1 1/2 "	30
" " 2 "	35
" " 2 1/2 "	40
Pencil Brushes, per dozen, assorted.	2 00
" " each, from 15 to.....	25
" for Retouching, each.....	20
" " " 5 in a box.....	90
Scales and Weights, tin boxes.....	75
" " wood boxes.....	1 00
Spirit Lamps, small.....	25
" " medium.....	50
Quill Dusters..	16
India Ink, per stick.....	10
Tack Hammers, each.....	25
Leadens Faucets, "	75

1	Package No. 19 Filterers.....	\$0 35
1 ½	H. R. Tray.....	75
1	Pint Silver Solution.....	2 00
1	Evaporating Dish, 24 oz.....	68
2	oz. Silver.....	2 25
2	Bots. O. K. Collodion.....	1 00
2	“ O. K. Varnish.....	70
1	lb. Iron and Ammonia.....	20
2	“ Acetic Acid.....	45
2	“ Alcohol.....	73
1	oz. Nitric Acid.....	18
½	lb. Cyanide.....	55
1	Box 1-9 E. S. Plates.....	70
1	“ 1-6 “ “.....	1 15
1	“ 1-4 “ “.....	1 70
1 ½	in. Duster.....	25
100	Card Envelopes.....	80
300	Ferro Mats 1-9 and 1-6.....	75
300	“ Slips embossed 1-6.....	1 50
3	doz. Gum Paper.....	75
½	“ No. 10 Albums.....	1 50
½	“ Card Rustic Frames.....	45
1	“ P. M. Frames assorted.....	75
1	“ Passe-partouts.....	40
1	“ 1-9 C. V. Cases fitted.....	1 15
1	“ 1-6 “ “.....	1 50
½	“ 1-4 “ “.....	1 33
½	“ 1-9 Union “.....	1 75
½	“ Locket “.....	56
½	doz. Assorted Fine Fancy Cases, Fitted.....	3 00
2	Display Mats and Frames.....	5 00
1	Faucet.....	75
1	Stereoscope and 24 Stereoscopic Views.....	2 75
	Packing Box.....	1 00

\$97 28

Those desiring the best Instrument should order the Voigtlander Lenses which would be \$23.50 additional. Those desiring to make four Gems on a ¼ Plate and single work from 1-9 to ½ or two on a ¼ or ½ Plate, will find a very profitable and excellent Camera in the No. 42½, price, with 4 1-9 Lenses and 1 ½ Darlot \$54.00, or \$89.00 with a ½ Voigtlander Lens. This we would recommend as the best for Ferrotyping. Negatives can also be made with the same Box and Lens. There to can be added any amount for Plates, Mounts, Carte Envelopes, Chemicals, etc., to suit the buyer's purse.

Additional cost for Materials as required for Photographing.

1	10 x 12 Porcelain Dish, Deep, (Fixing).....	\$1 60
1	10 x 12 H. R. “ (Silvering).....	2 25
4	8 x 10 Porcelain Ware, Deep.....	4 00
1	5-7 H. R. Dish, (Fixing Negatives).....	75
3	oz. Silver.....	2 40
1	lb. Liq. of Ammonia, 25, bottles, 18.....	43
5	lbs. Hypo Sulphate of Soda.....	45
1	lb. Bi Carbonate “.....	12
1	lb. Kaolin.....	10
½	lb. Gum Arabic.....	50
1	Paste Brush.....	25
1	Card Glass Cutter.....	35
50	No. 22 Card Mounts, Tinted Border, Tinted Board.....	1 65
2	1-4 Platt's Presses and Vignettings.....	1 30
1	Bottle Negative Varnish.....	45
1	“ “ Collodion.....	75
½	oz. Pyrogalic Acid.....	45
1	oz. Citric “.....	15
1	Bottle Gold, pure.....	65
1	oz. Acetate of Soda.....	10
1	Bottle Intensifier.....	45
1	Box Albumen Colors.....	1 25
½	Dozen Sable Brushes.....	1 00
1	“ Albumen Paper.....	1 00
4	Funnels—Glass.....	62
	Box.....	40

\$24 42

Roller Press, Retouching Frames, Box of Faber's Pencils, etc., will be needed by the practical Photographer as he advances.

A 4-4 size outfit in proportion to the 1-4 size for making Ferrotypes and Photographs, including a 4-4 Darlot Lens, late improved Camera Box, Lewis' late improved Stand; also, 1 dozen Assorted Frames, 1 dozen Passepartouts, Mounts, etc., usually amounts to from \$175 to \$200.

Outfits for Viewing can be readily made up from the Price List. We can recommend the Morrison Lenses for Fine Stereoscopic Views.

Great Southern and Western Fast Freight Steamship and Railroad Lines.

Photographers in distant States frequently object to the high freight charges of the Express Companies. While their freights may be high, there is still a great saving in their favor when Goods are ordered from this Emporium. If you order further North, the freight will be increased, and the goods will not

be sold for less. If you deal with Houses remotely situated from points of manufacture and import, their prices will be so high as to make it a clear case of gain by sending direct to Headquarters here.

Those of our customers who have their orders accompanied by the Funds, can have the goods forwarded by Freight Line, at much less cost than by Express; besides, a special discount is made only on such Orders, which often covers the expenses of transportation, etc.

For Example:—A customer in Texas sends an order for \$300 00 with check accompanying it, requesting the goods forwarded by the Baltimore and New Orleans Steamship Line to Galveston, Texas, or New Orleans, La., naming his Commission House, to whose care they are to be directed, and who will see to the transportation of the goods to the final point in the interior.

The Special discount on the \$300 00 is \$15 00: The freight from Baltimore to New Orleans will amount to from \$5 00 to \$10 00, (according to the Measurement of the boxes.) The insurance is $1\frac{1}{2}\%$, which is \$5 25 on \$300 00. The special discount will about cover these expenses for freight and insurance. The goods will then cost when delivered in New Orleans, about the rate they are quoted on the Price List; whereas, if the same bill of goods were ordered nearer Texas, the difference in the prices are 20 and some articles 30 per cents more; making a nett saving of from \$60 00 to \$90 00 on a moderate bill of \$300 00; or from \$200 00 to \$300 00 on every thousand dollars worth of good used. This is an item worth saving to a Photographer.

The same difference will be found not only by the Texas photographers, but by *all* who are in distant States. To parties where the Steamship Lines do not harbor or connect, the goods can be forwarded by "all rail," and as freights by Railroad are somewhat higher, the difference is balanced by the all rail goods not being insured, (unless requested,) as the dangers by land are less than those by sea.

STEAMSHIP LINES.—*Baltimore to Havana and New Orleans, calling at Key West.* Leaves Baltimore the 1st and 15th of each month. This line furnishes through Bills of Lading to Galveston, Indianola, Rockport, Lavaca, and Brazos, in Texas. Also, to Mobile, Baton Rouge, Bayou Sara, Natchez, Vicksburg, Helena, and Memphis.

Baltimore and Savannah Line forwards to Savannah, thence by rail to all points on the Central Railroad of Georgia, and connecting with Florida Steamers.

Charleston and Baltimore Line issues through Bills of Lading to Charleston and Columbia, S. C.; Augusta, Milledgeville, Atlanta, and West Point, Georgia; Montgomery, Pollard and Mobile, Alabama. Also, to all stations on the following railroads: Georgia, Macon and Augusta; Atlanta and West Point; Alabama and Florida, and Mobile and Great Northern. Steamers leave Baltimore every five days.

Baltimore and Wilmington, N. C. Line sails weekly, and furnish through Bills of Lading to all points on the Manchester and Weldon Railroads.

Steamers from Baltimore to Norfolk and Portsmouth, Va., and Plymouth, N. C.

Steamers from Baltimore to Richmond and Petersburg.

The Maryland Steamboat Company forward to all points and intermediate Landings on the Eastern and Western Shores of Maryland and Virginia. All the Steamship Lines forward at less rates than is charged from New York.

Fast Freight "All Rail" Lines.

The Baltimore and Ohio Railroad forwards goods to all points by Rail South, South-west, West, North-west, connecting with every railroad line from the Atlantic to the Pacific shores. By this road through cars are run to Cincinnati, Louisville, Chicago, and St. Louis. Purchasers of goods in Baltimore can receive their goods at a considerable less rate than by other roads, which necessarily have to re-ship in changing cars, &c.

The Western photographers will find a great saving in the freight, and time gained, by ordering from this Emporium. The Baltimore and Ohio Railroad and its connections being several hundred miles nearer to the West than from New York.

The Northern Central Railroad forwards goods to all points between Baltimore and Niagara Falls, thence connecting with the several Canada Lines; also connecting at Harrisburg with the Pennsylvania Central Railroad and all its branches and connections, running to every part of the State of Pennsylvania; also connecting with the Erie Line and its branches, traversing Western New York in all directions.

Goods to be sent by either of these lines must be prepaid, as Freight Lines do not send merchandise C. O. D.

Large orders and those for distant places only should be forwarded by the Freight Routes, provided time is not so much an object.

The Adams Express Company forward from Baltimore to all points accessible by Railroad, making fast time, and prompt connection with the Southern, Texas, United States, American, Merchants' Union, Wells & Fargo, Canada, and other Express Companies.

Texas customers can order their goods to New Orleans by Steamer, thence to be transferred to the "Texas Express Company," (A. B. Small, President,) who will transport them to their destination.

Returning my thanks to my friends for the liberal patronage they have extended to me during the past, and being encouraged by the general acknowledgement of satisfaction with which my former Price List has been received, I have been induced to publish on this occasion, for the benefit of my customers, the most complete Price List which has ever been issued, together with the special addition of a handsome Illustration, made with materials in daily use supplied from our Stock Department. It will also be remembered that it is the only Emporium which offers to all alike a Special Cash Discount, particulars of which will be found in the body of the book. In consideration of the reasonable prices subject to these discounts, and the central position this establishment occupies geographically, the photographers from all quarters will find the

National Emporium the most profitable and advantageous channel to send their orders, and it will continue to be my pleasure to treat all orders with the most careful and prompt attention.

Wishing the Fraternity the success their efforts towards the advancement of our art merits, I remain,

Very respectfully,

RICHARD WALZL.

A Stock House for the Period

Is represented in the extensive and extending national Photographic and Stereoscopic Emporium in Baltimore, Md. Richard Walzl, the proprietor, is strictly speaking, a business man, both in taste and education, and it may be said the right man in the right place. For the past thirteen years he has been actively engaged in his business, and is well posted in the requirements of the successful operator. His energy, industry, and enterprise, marked with liberality and modesty regarding his own part in each undertaking, have won for him a reputation second to none. His manner of doing business is on modern principles—small profits and an extensive trade. Fairness and square dealing is the rule of this establishment. He has received the surrender of all the legitimate Stock houses in Baltimore, in consequence of his ability to manage the Stock Trade in a style giving utmost satisfaction. In the Photographic Department of the business, his Gallery is a model for cleanliness and refined elegance. The work executed under his directions and by himself, has thrice carried the awards at the Maryland Institute Exhibitions in competition with leading Photographers of ability.

Promptness and order reign supreme throughout his establishment. Customers to this Emporium are kept posted in all that is new and of interest to the business. They are encouraged by words of good cheer in their labors and efforts in the trade. His staff of employees are courteous and efficient in their several departments. The capital of the House is ample for the increase of its already extensive facilities should the trade require it. Photographers are there furnished with materials and Chemicals superior in quality and at the lowest prices, thus extending assurance of fairness and justice to all customers. Its facilities for manufacture and direct importation are now being fully developed and increasing in extent. The Stock of carefully selected Goods, Chemicals and Materials is the largest and most complete line ever introduced in this market. The rapid strides forward this establishment is making, are the legitimate fruits of a thorough practical experience, unceasing toil, unbounded enterprise, perfect system, and an upright and liberal course of dealing with the Trade and the public.—*Daily Times.*

—A new Cameo Press with two dies for the No. 2 and 3 Card Masks, has just been introduced. Price only \$5.00. Every Photographer can now afford to have a Cameo Press.

BUSINESS ITEMS.

Although the number of orders sent to and from this Emporium is something marvellous, but as each department is thoroughly classified and systematized, and giving personal attention to the management of the business, few if any errors can occur. In the event of any oversights, the same will be promptly adjusted.

Write plain and definite as possible your name, town, county and State to which the invoice is to be sent, and directions for the shipping of goods.

In ordering Ferro Mats, or any card stock, send sample, and specify numbers and sizes as near as possible to prevent mistakes.

In ordering Cases or Frames, specify if to be fitted or empty, and the sizes.

Gun Cottons, Varnishes, Collodions and Papers, are several makes of each; in ordering, which to send should be specified.

For Plates, please specify black or tinted, egg shell or glossy.

Goods will be forwarded to any place where there is an Express Office, and amount of bill collected on delivery.

Persons, however, with whom we are *not* acquainted, must remit with order about twenty-five per cent. of amount ordered, as a pledge of faith that they will pay balance and take the goods promptly on delivery. We would, however, advise all to take advantage of our offer of special discounts, thereby securing also the cheap freight rates.

Ferrotypes have again been advanced, and prices still unsteady, consequent upon the increase in cost of iron. Ferrotypers will have to advance their prices for their productions. The best chance is now before them.

Positively no drummers, agents or pedlars employed by this establishment therefore all orders must be addressed direct through the Mail.

All goods sent C. O. D. should be taken from the Express Office within ten days after arrival or notice of the same.

Positively no discount can be allowed on bills C. O. D.

Small orders, if accompanied with the cash, not only save time in express transportation, but also saves return charges, etc.

All goods are carefully put up in good order and well packed before shipping. Should any damage occur during transportation, we request that the matter be brought promptly to the transportation company who, if it is through their neglect, are responsible.

Steamboat orders must be accompanied with the funds to receive attention, and allowance made for box and freight.

Mail orders must be prepaid and an allowance made for postage, and are at the risk of the buyer, as the P. O. Department does not hold itself responsible for any loss.

Boxing and packing always at cost price. Our box charges will be found extremely moderate.

The best and safest way to remit money is by Draft, payable to Richard Walzl, Baltimore, on any bank or bankers in Baltimore, Philadelphia or New York, or by P. O. Money Order, Registered Letters, and through Express.

LP1406

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I deal with RICHARD W. LIZZL, and read "THE PHOTOGRAPHER'S FRIEND." I bought on credit, and did not read the Journal.