

Of cameras there are many kinds in the market. It is simply a case of paying your money and taking your choice. Goods run from five dollars to one hundred. Those at from five to twenty-five dollars are the most saleable, but you occasionally get a chance to sell a higher priced one when you can pocket a nice little sum of money as your profit.

MAKING THE EXPOSURE.

Now with a camera and the accessories for work, the amateur may proceed to select some subject for his first attempt. For this I advise a landscape, as this, with a proper exposure, furnishes the best kind of a negative for development and study.

Many no doubt suppose all that is necessary is to point the camera, make the exposure, develop and fix and you have the picture. This is true, so far as saying you may have a photograph goes; but you are not likely to have a very good picture.

Don't try to crowd the whole earth into your picture. Your plate will not be large enough. Don't think because the view from some hill or mountain pleases your eye that it will look as well when you have it on a plate $3\frac{1}{2} \times 3\frac{1}{2}$ or 4×5 , in your camera. Long distance views can only be taken in a satisfactory manner with special lenses of long focus and under favorable atmospheric conditions.

But this fact need not discourage you, as by cultivating the habit of observation you will find views which make little gems of pictures all around you. A short stretch of that babbling brook; the turn in the road, with its overhanging foliage; the pasture, with its herd of cattle; the rustic bridge; the ruined mill; while even the little shallow mud pond, with its lily pads and reflected shadows, often furnishes the amateur with a subject hard to beat.

As a rule, look well to the foreground of your picture; the distance will take care of itself.

Suppose you are taking a picture of a pond or lake; have the foreground include some of the shore, with large rocks, if possible, or a clump of low bushes may be brought in play in absence of anything more desirable.

Attend to these matters carefully, and you will feel more than repaid for the trouble.

There are certain well defined rules for the art, with which I advise the amateur to make himself familiar. Of course, these cannot be as closely followed in photography as in painting, as many objects intrude themselves in our view which the painter may leave out, but we cannot, as the lens delineates perfectly all before it. But truly artistic views may be made with the camera, which appeal to the eye and mind as much as a painting. I would advise you, if possible, to obtain a copy of "Wilson's Photographics," and read the chapters on "Composition," and I feel sure you will feel amply repaid for the trouble. It is in many of our public libraries, so may be had for the asking.

Having chosen the subject, let us now proceed to make the exposure. Hold the camera in front of you or under your arm, whichever is the easier for you.

Be sure the slide of the plate-holder is drawn and your shutter set. Move the camera so as to show in the finder the exact view you wish to take; press the button of the shutter, and your exposure is made. Now return the slide to the holder, and right here a word of caution: When inserting the slide in the holder always have it square with the end of the holder; never insert cornerwise, for if you do you will open the little trap in the holder and let in light, which will "fog" your plate and spoil it. I have seen many plates spoiled in this way, and the camera blamed by the owner, until this matter was explained to them.

Now we reverse our holder in the camera and are ready for another shot. Supposing we try an interior this time. Here the conditions are not as favorable as out of doors. The exposure must be prolonged, for where you took a view out doors in a fraction of a second, you must now increase the exposure from 30 to 60 seconds in favorable places to even an hour or more in a dimly lighted church, with its stained glass windows and gloomy arches. For such cases as these the time can only be learned by practical experience, but I can say this, that, as a rule, interior views will stand lots of exposure, and must have it, if you would have harmonious pictures full of snap and detail.

For interior work you must use a tripod to support the camera during the exposure, or, in the absence of this, you may set the camera on some solid support, as a table or chair. Avoid, if possible, pointing the camera towards a window. If a window is to be included in the view, draw the curtain, make the exposure, recap your lens, raise the curtain to its proper height, then make a second exposure, about as quickly as you can uncap and recap the lens.

Portraiture is the most difficult of all the attempts the amateur will make in photography, and he will find the light a very unruly servant.

At first you will be sure to find you have too much of it in one place and not enough in another; one side of the face will be as white as chalk, the other as black as night. But this difficulty may be overcome, and you will be able to make very presentable pictures of such of your friends as you may induce to sit for you.

If you would take portraits effectively, you must provide yourself with some reflectors and shades.

These are simply light wooden or wire frames, covered with white cloth, or even paper, although cloth is best; but even a sheet of white cardboard may be utilized for the purpose.

For ordinary work, such as lighting the shadow side of the face, a frame about thirty by forty inches is sufficient, and by setting this at a proper angle, by leaning

against a chair (or an easel back may be attached), you can soften the shades to such degree as you may wish.

It is not within the scope of this article to give complete instructions in portraiture, but I trust the hints given, together with a little practical experience, will enable a reader to accomplish satisfactory results. Before closing this part of the subject, I want to say a few words regarding the stops or diaphragms.

These are the various sized holes, either formed of strips of blackened brass to slip in a slot in the centre of the lens tube, or else, made in the rotary style, they revolve in the same place.

These control the amount of light, as well as sharpen the outline of the image. For instantaneous work, generally the largest or the one next to it are used, while for interior work and time exposures outside, the smallest or the next larger will be the best.

For portraiture, the largest is the best, although for group work the next to it might prove better, this depending on the covering power of the lens.—C. A. Boyden, Ph.G., in *The New England Druggist*.

Compressed Air.

"Compressing air until it will remain compressed without any pressure upon it," are the few words with which a writer in *The Electrical Engineer* describes the new product, "aerine," or liquified air, remarking that, though requiring an enormous pressure to get it in such a form, it will remain there for some time in the open air; that is, until it gets heat enough from the surrounding air to turn again into its natural state. It will turn mercury into a solid form as soon as it is poured into it, and freeze up a thermometer rapidly. Such is the assumed prospective usefulness of this liquid that predictions are made of distant water-powers now running to waste being soon employed compressing the very air we breathe into a liquid form, and shipping it to all parts of the globe for industrial purposes.

Sponges.

The past summer has not been a very good one for the sponge fisheries. The sheepswool sponge of Florida is very scarce and difficult to get. Prices for this variety have risen in consequence and quotations run from \$3.25 to \$3.75 per pound wholesale. Supplies from the Mediterranean have also fallen off owing to the late war, the Greeks playing a large part in the industry. The Florida yellowwool sponge is also rather scarce, and is quoted at \$1.10 to \$1.35 per lb., but the grass sponge is in good supply, prices running from 75 to 90c. per lb. The Cuba and Nassau sheepswool sponge is cheaper than the Florida variety, the quality being inferior, and is quoted at \$2 to \$2.75 per pound.