



Amateur Photography

How to Buy and Use a Camera

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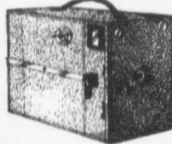


THE impression existing in many minds that photography is an expensive hobby is responsible for preventing many persons taking up this fascinating "hobby"; but the results shown in the recent *Omara* competition give no indication as to whether the outfit employed cost \$5 or \$100, or whether the negative was developed in an elaborately-equipped dark-room or in a cellar with the window blocked up with brown paper. Of course it is wise to get a good camera and a good lens, for these extend the sphere of possibilities; but with a low-priced camera it is possible to make excellent pictures that will hold their own pictorially with those taken with much more expensive outfits.

The first consideration when selecting a camera is to decide whether plates or films are to be used. If most of the work is to be done at home, plates are preferable; but if there is much travelling to be done the relative advantages of films increase rapidly. The majority of modern cameras can be used for both. The advantages of films are their lightness, unbreakable character, the way they lend themselves to daylight loading, and the fact that of all photographic materials the film is the one which is most generally obtained in good condition anywhere. Against this must be put its high cost (the price of films being generally twice that of glass plates), the fact that the celluloid base is not so inert under severe climatic conditions as glass, and certain minor inconveniences when single exposures are to be made and developed.

We give herewith illustrations of the four types of cameras: *Fixed Focus, Folding Pocket for Roll Films, Folding Pocket for Plates or Film Packs, and Reflex.*

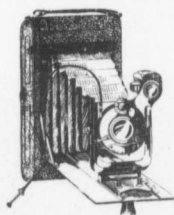
FIXED FOCUS CAMERA.



This style consists of the hand camera in its simplest form, a light-tight box with a lens at one end and an arrangement for holding the film at the other, with some arrangement whereby the lens can be uncovered and covered again in such a short time that the camera can be held quite still during the working of the "shutter." In cameras of this type all objects beyond a certain distance are in sufficiently sharp focus for ordinary purposes, but objects nearer than this limit of distance will not be so sharply defined. To deal with near objects we would use a smaller stop in the lens, or add another thin lens to the original lens. Such lenses are generally termed magnifiers, and cost about 50c. The use of a small stop means an increase of time of exposure, and this may not be permissible on account of the conditions of light or the rapid movement of the object. A

supplementary lens gets over these limitations, and is, therefore, to be recommended.

THE FOLDING POCKET CAMERA FOR ROLL FILMS.



Probably no type of camera is so deservedly popular as this style, known in some forms as the hand-stand camera. This name is very aptly descriptive of a camera which may be held in the hand or used on a

stand, with equal success in both instances. The person handling this variety of camera for the first time is at once struck with its compact design and perfect mechanical construction. The body is made of seasoned mahogany, neatly covered with morocco leatherette, leather bellows, nickel-plated metal parts, and all necessary focussing adjustments and other movements. It is adapted equally well for roll films, film packs and plates; is fitted with a double rectilinear lens, and an automatic shutter giving time, bulb, and various instantaneous exposures. The camera closes into a very compact space, and is extremely light and portable. Pressure on a hidden button at one side releases the baseboard, which is drawn down at right angles with the camera back and snapped firmly in position. When the camera is opened thus far the front is pulled forward as far as it will go. This brings the pointer to the infinity point on the focussing scale, with the designating sign (either INF. 100 or ∞) beside it. When the camera front is in this position the distant objects shown in a photograph will be sharply focussed. To get nearer objects in focus allow the camera front to come further forward until the pointer is over one of the other marks on the focussing scale. These marks indicate distances in feet, and if an object is ten feet distant it will be in perfectly sharp focus in the resulting photograph if the pointer is placed over the mark ten feet on the focussing scale. The capacity of the lens is generally sufficient to give considerable depth of definition when working at even full aperture; that is, objects at extreme distance and those nearer can be rendered sharply in focus at the same time. However, if very near and distant objects are required to be rendered sharp, the lens aperture must be "stopped down." This is done by means of the iris diaphragm inside each lens. By moving the small pointer on the shutter to the different marks, F8, 11, 16, 22, etc., it will be seen that the aperture of the lens is smaller. These apertures bear a definite ratio to each other. The smaller the aperture the

sharper all the planes of the picture become; but at the same time the quantity of light reaching the film is reduced, and the exposure has, therefore, to be proportionately increased. The ratio of exposure to stop aperture is double the exposure for each preceding smaller stop. Thus, if one second is necessary at F8, approximately two seconds are required for F11, and four seconds for F16.

In loading cameras such as this (which can be done in broad daylight), hold the camera firmly in the left hand, and with the finger and thumb of the right hand press the two small plates on either side of the back. This releases the loose back, and allows it to be taken apart. In one end of the camera will be found an empty reel, in position for holding the end of the new spool and forming a spindle on which the film will be wound after each exposure is made. The new spool is placed in the recess at the opposite end of the camera, and is held in position by the little spring pins on either side.

The seal of the film should now be removed, and the pointed end of the black paper passed over the metal rollers and inserted in the widest end of the slit in the empty spool. The winding key is given a couple of turns, and the black paper pulled tight and true. The camera back should now be replaced, making sure it is the right way up. The winding key is turned until the figure (1) appears in the little red window in the camera back, indicating that the first section of the film is ready for the exposure.

When using the camera it should be held firmly against the body and the operator's head bent over comfortably so that the image of the object to be photographed can be seen clearly in the viewfinder. The distance is then judged, and the focussing scale set to that distance. In most cases, however, for general snapshot work, if there are no very near objects, the pointer can be kept at thirty feet, the lens at full aperture, and the shutter set at 1/50. This will serve for most outdoor subjects which are well lighted and have no rapid moving objects in them.

When exposing with the trigger release, the thumb of the right hand is employed. If a ball and tube, or an antinous release is used, the bulb is held in the right hand and squeezed gently, but firmly, at the correct moment.

The Rising Front.—In all pictures that include buildings the camera must be held level, otherwise, if the camera is pointed up to include the upper part, the picture will show the building leaning over backwards, or with all the vertical lines converging towards the top. To overcome this the rising front must be used. There is a clamping screw on the camera front, which allows it to be raised to the required height and clamped in position. This has the effect of including more of the top of the building and cutting off the excessive foreground shown in most pictures of this type.