

SPECIAL REPORT

CANON V

THE CANON MODEL V is a unique instrument. It is the first camera to be offered with a choice of an ultra-fast 50mm, f/1.2 lens, a 50mm, f/1.8 lens, or a semi-wide-angle 35mm, f/1.8 lens as standard equipment.

It is the only camera with a lens-coupled combined rangefinder-viewfinder having a variable field to match either the 50mm "normal" lens or the semi-wide-angle 35mm lens. Thus, no accessory viewfinder is necessary when using the 35mm semi-wide-angle lens. This is a distinct advantage for those photographers who think the 35mm lens is ideal for most miniature camera work, particularly in color (and we do think so). Working with such a combination is an entirely new experience, and we liked it.

Here are some of the main features of this latest addi-

tion to the line made by Canon Camera Co., Tokyo. The basic cloth focal plane shutter and its mechanism remain the same. Shutter speeds are 1/1000, 1/500, 1/250, 1/125, 1/60, 1/30 (all on the high speed dial), 1/15, 1/8, 1/4, 1/2, and 1 second. Notice that each setting gives either half or double the exposure of the next setting. This makes exposure determination and setting very easy—not all cameras have this arrangement of shutter speeds. Your choice of shutter speed may be set before or after cocking and the shutter mechanism works quietly and smoothly.

Film advance and shutter winding is done with a rapid wind lever which folds into the baseplate when not in use.

The lens threading and rangefinder coupling have

Canon Model V is shown with 7-element, 50mm, f/1.2 lens. Rapid wind lever folds into baseplate when not in use.



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not been changed. All older Canon lenses will fit.

The flash attachment has been simplified, and a tiny B-C gun will be available soon. This clips onto an unobtrusive fitting on the side of the camera. A sync control lever under the shutter speed dial gives a choice of FP and M or XF and F synchronization, and in conjunction with the shutter speed setting dial automatically sets the delay mechanism for proper sync. A built-in self-timer allows you about 10 seconds before tripping the shutter.

The viewfinder-rangefinder

The single window combined range-viewfinder has a good-sized eyepiece, gives a bright image, and is actuated by focusing the lens. A small knurled-edge

wheel on the back of the camera is used to shift the field of view from that of the normal (50mm) lens to the semi-wide-angle (35mm) lens, or to a third position which gives a greatly enlarged image for fine focusing. The field of view of the third position is very small and seems not to correspond with that for any particular lens. The shift in fields and magnification is accomplished by rotating a small prism turret within the rangefinder housing. Previous Canons have had a similar turret, but the range of fields of view covered did not include that of the 35mm lens.

The view-rangefinder mechanism does not have built-in parallax compensation. However, we experienced no difficulty when using the 35mm lens. When lenses of longer than 50mm focal length are used, ac-

Three wide-angle lenses below are new. Standard 50mm, f/1.8 lens has been remounted. Viewfinders are new.



50MM, F/1.8 IN NEW MOUNT



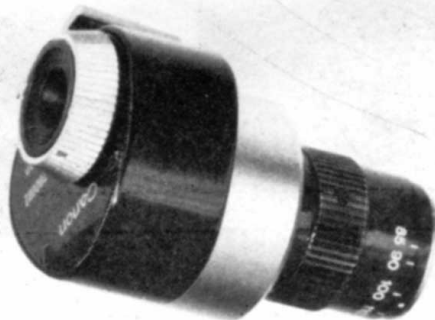
35MM, F/1.8 SEMI-WIDE-ANGLE



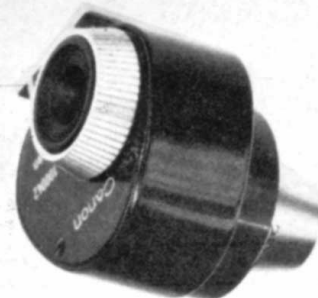
28MM, F/2.8 WIDE-ANGLE



25MM, F/3.5 WIDE-ANGLE



MULTI-FIELD VIEWFINDER FOR TELE, LONG-FOCUS LENSES



SINGLE VIEWFINDER FOR WIDE-ANGLE LENS

CANON V (cont.)

cessory viewfinders are required. By means of a neat mechanism, these viewfinders are provided with automatic parallax compensation. A glance at the accessory shoe will reveal the end of a blunt metal pin (see photo *bottom, left, page 67*). This pin is connected to the rangefinder mechanism in such a way that when you focus, the pin is raised or lowered a small amount. This movement is just enough to tilt the eyepiece of the accessory viewfinder to compensate for the parallax error at any distance.

The accessory viewfinders are well designed and nicely made. There is one multi-field zoom-type finder for the long focus and tele lenses. Separate finders are provided for the wide-angle lenses.

Changes in the camera body

The body has been changed radically. The entire back plate is hinged and opens for loading or cleaning. Previous Canons loaded through the bottom. The take-up spool is permanently fastened to the camera, and the loading technique is unusual. First, the film tongue is inserted in a slot in the take-up spool so as to engage a small peg in one of the sprocket holes. After a preliminary wind or two of the take-up spool to get the film started (a knurled flange at one end of the spool is provided for this purpose) you drop the cartridge into the chamber at the other end of the camera.

We had a distinct impression that this system could be improved by making the spool slot deeper and the little peg somewhat longer. The back plate carries a hold-down roller to prevent film curl, and a leaf spring to keep the cartridge in position.

The film advance-rewind control is in the form of a

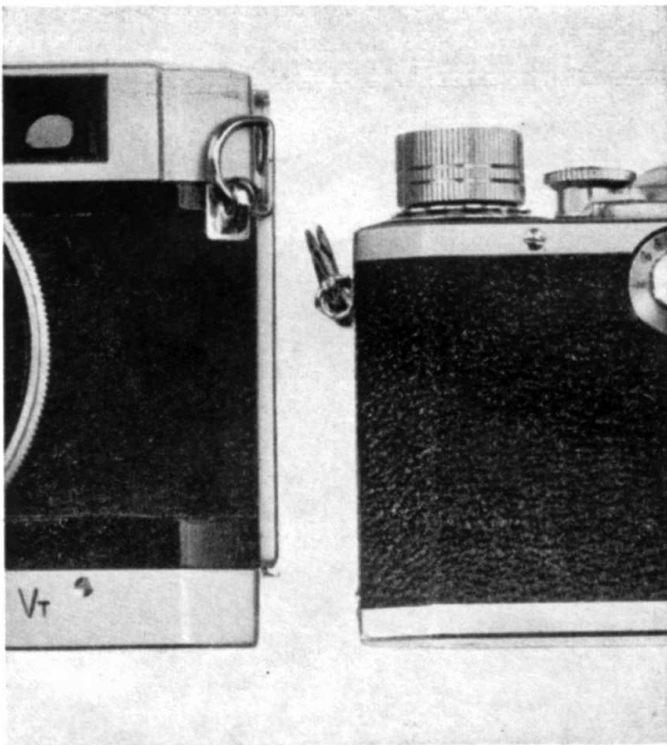
collar around the shutter release. The rewind knob is retractable, and ordinarily flush with the top of the camera body. To use it, you flick a flat lever (photo *bottom, left, page 67*) and the rewind knob springs up slightly and can be raised further. It was our opinion that a camera designed for such rapid use should also have a faster rewinding system—for instance, a crank. In some situations an entire film could be exposed more rapidly than it could be rewound into the cartridge.

Everything about the camera body indicated thoughtful design, good workmanship, materials and finish. It also has eye appeal.

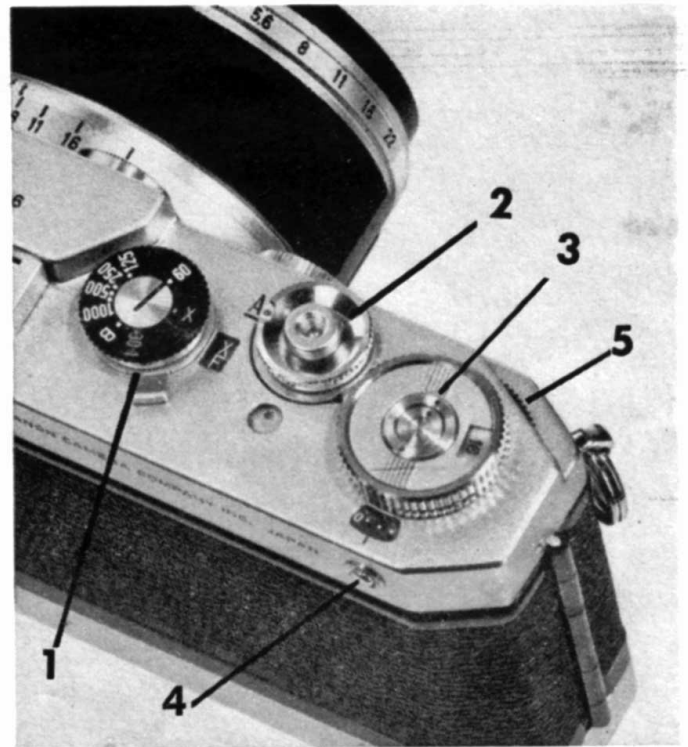
The f/1.2 lens: a \$64 question

How do you go about evaluating a camera with an f/1.2 lens as standard equipment? What standards apply? What comparisons can you make? This report is based on the results of extensive practical picture making and careful examination of the lenses by a topgrade optical expert with ample equipment, skill, and experience in testing lenses for 35mm cameras.

When do you use f/1.2? It was our opinion that this was an emergency lens setting, to use where nothing else could do the trick. So we made some tests at a dimly lit indoor polo match, and determined the combination of film-exposure-development which would take advantage of every bit of the film's reserve speed and latitude. At f/1.2 and 1/125 second sufficient action was stopped, usable pictures resulted, negatives were easily printable (see *pages 53 and 55*). We tried the same thing with f/2; result, total failure. An aperture of f/1.2 gives you almost 3X (2.8X, to be exact) as much light on the film as f/2. This is a formidable



Canon V, left, is taller than older models, trifle longer, but no thicker from front to back. Neck strap attachment eyes are offset to front of camera to counterbalance weight of lens, let camera hang straight.



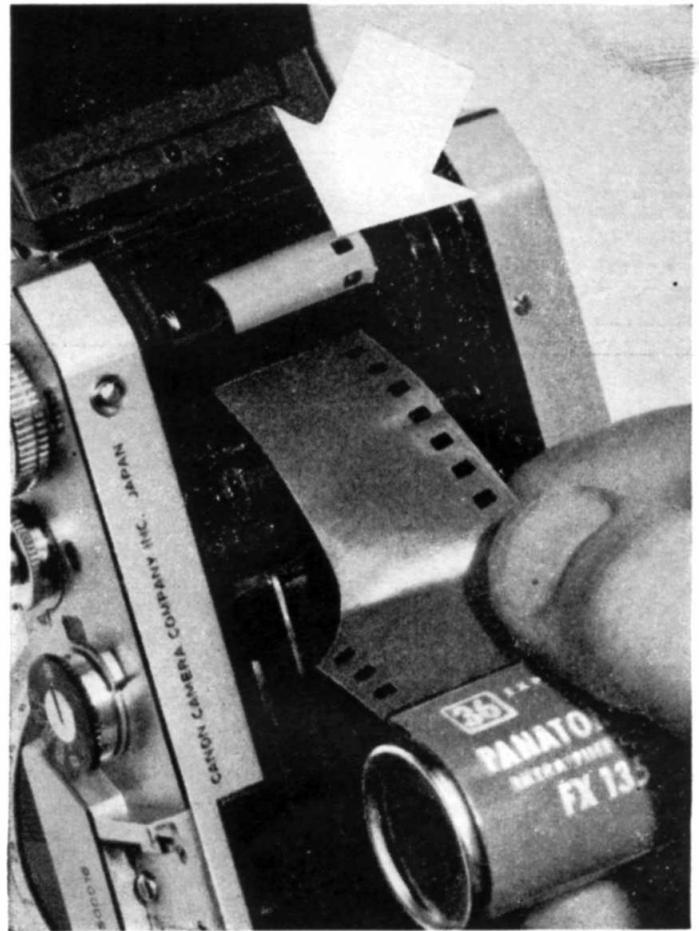
(1) Sync selector control. (2) Film rewind control. (3) Three dots to line up before manual film wind knob can be lifted, used. (4) Button to push, to reset knob. (5) Knurled edge of exposure counter. Rotate from here.

improvement in exposure, where the film has been pushed to its limits and a fast shutter is needed.

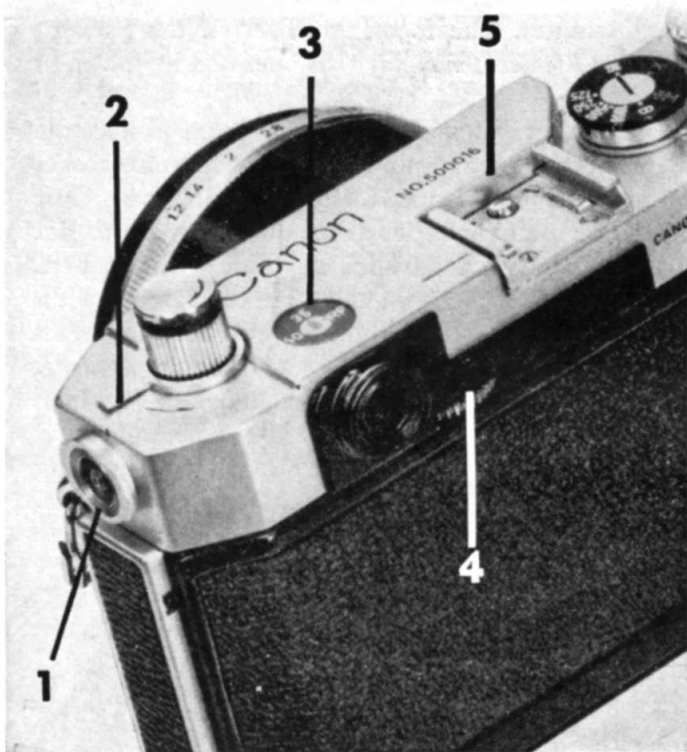
No one would be rash enough to claim that these 11x14 prints were razor sharp, or of the topmost photographic quality. There was a noticeable light loss at the sides of the prints (this is to be expected with such a lens at $f/1.2$), and definition there was also not too good. In the central two-thirds of the negative the lighting was more even, and there was reasonably good definition, though by no means critically sharp. However, at $f/1.2$ the depth of field (zone which is in sharp focus) is so shallow that it was difficult to tell whether the unsharpness was due to the lens or the position of the subject. In some pictures, a halo effect appeared around the edges of some light colored objects, indicating some flare in the lens.

But keep *this* in mind. Many 11x14 straight prints, with the defects noted, were presented to a wide variety of viewers—photo editors, horse lovers, amateur photographers, and people with no interest in photography but who liked pictures. Without exception they paid no heed to anything except the subject matter. Therefore, it's our opinion that a lens which can take pictures at $f/1.2$ is a useful, in fact essential piece of equipment for this extremely difficult photographic problem. And the pictures were good enough technically for publication in any magazine.

Picture quality and light distribution improved progressively as the lens was stopped down. At $f/1.4$ the difference was just noticeable. At $f/2$ it was the equal of a very good $f/2$ lens, and at $f/2.8$ it was the equal of an excellent $f/2.8$ lens. So having an $f/1.2$ aperture has not harmed the rest of (Continued on page 117)



Loading: first fit film tongue into slot in take-up spool, engage small peg (arrow) in sprocket hole. Film winds on with emulsion side out. After securing tongue, drop film cartridge into chamber at opposite end.



(1) Flash contact and mount for gun. (2) Lever to allow rewind knob to be raised; it's normally recessed. (3) Variable viewfinder field indicator. (4) Variable viewfinder control. (5) Automatic parallax compensator.



Close-up of manual film wind knob shows it in elevated position. This is for auxiliary use only; ordinarily film is advanced, shutter cocked by means of rapid wind lever on camera's baseplate. Knob is easy to operate.

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(Continued from page 67)

its performance in any way that we could determine.

Our optical expert arrived independently at exactly the same conclusions, plus some more. The light transmission of the lens is excellent. At f/1.2 it really is an f/1.2 lens, at least for the central half of the negative; the light falls off noticeably at the side edges. The other f/numbers are accurately marked.

On the test bench the lens showed some flare wide open; it was no problem at f/2. The most interesting thing of all was that definition did not fall off at f/16 and f/22. The lens was well focused to the camera at all apertures, and there was no objectionable shift of focus throughout the full range of f/numbers (that's good). Our expert pointed out the engineering difficulties of making an iris diaphragm work efficiently at both f/1.2 and f/22, and said he thought these problems had been well solved. He admired the lens coating, and the finish of the mount. Any conclusions

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(Continued from page 117)

about the f/1.2? Well, yes. It's a valuable item *if you need it*.

Our approach to the 35mm, f/1.8 lens was similar to that used with the f/1.2 lens. A semi-wide-angle lens of such high speed would be extremely useful for reportage under bad lighting conditions. Careful tests showed that this lens had a very flat field (which is good), that it did not shift focus objectionably when stopped down. At f/4 this was a "sharp all over" lens. At f/2.8 it was perhaps not quite on a par with an exceptionally good older model Canon 35mm, f/2.8 lens wide open. At f/2 and f/1.8 definition and ability to cover the entire negative sharply were definitely below what it could do at f/2.8. But it could take pictures of reasonably good quality in places where the older f/2.8 lens would be unusable.

Testing the 25mm, f/3.5 lens

This is a completely new lens designed to cover an angle of 81° on the diagonal of the negative. When this lens was tested for light transmission it was found to be more of an f/4 lens than an f/3.5. Our expert was of the opinion that this was due to the fact that the iris diaphragm had only six leaves instead of the usual 11 or more, that this produced a not quite circular aperture, thus cutting off a bit of the light. The lens was found to be well focused, to have a flat field (quite an achievement with such a wide angle) and to be otherwise well corrected. When closed down a little bit, to f/4, which was actually about f/4.7, it was better in performance than at its widest aperture.

A lens of such speed and covering power would be of great value in confined areas where there is little light. Even at f/4 this short focal length lens has great depth of field and puts a remarkably deep area into sharp focus.

The new Canon lenses are all set in beautifully finished black and satin chrome mounts. These mounts are a combination of lightweight alloys with brass for the moving and wearing parts. There are two other lenses shown on page 65. The 50mm, f/1.8 is a remounting of the standard Canon lens. The 28mm, f/2.8 is a new wide-angle lens covering 75° on the diagonal. It is a supplement to the 28mm, f/3.5 which Canon has been making for some time. Unfortunately, we did not have time to run complete tests on this lens; there will be more on it in a future issue.

The prices of the camera and lenses described are: Canon Model V with 50mm, f/1.8 lens, \$325; with 50mm f/1.2 lens, \$450; with 35mm, f/1.8 lens, \$350.—JOHN WOLBARST.