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WHAT
TYPE
OF
LENS
IS
BEST
FOR
MY
PURPOSE

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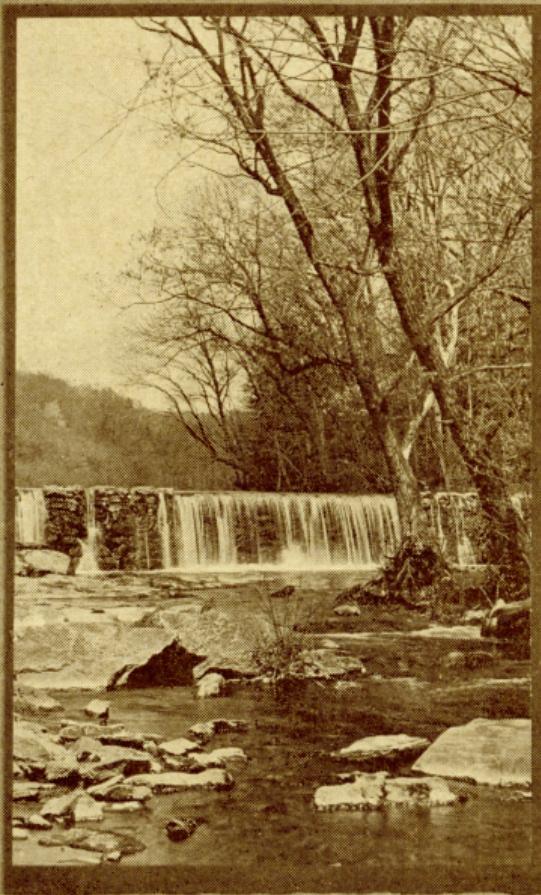


WE are pleased at all times to receive samples of work made with any of our lenses, arranging for the purchase of such of them as can be used to advantage in our advertising, booklets, etc.

CONCERNING LENSES IN
GENERAL AND AS WELL
AN ANSWER TO THAT
PUZZLING QUESTION,
“WHAT TYPE OF LENS IS
BEST FOR MY PURPOSE?”



PUBLISHED FOR
HAND AND VIEW CAMERA WORKERS
BY THE
WOLLENSAK OPTICAL COMPANY
ROCHESTER, N. Y.



—“Spring”—

Velostigmat
Series I F.6.8.
Negative.—

Photo by
Stenzel
Phila. Pa.

“What Type of Lens is Best for My Purpose?”

A QUESTION often asked but seldom answered in such a way as to leave no room for doubt. This question has been asked us so many times that it was thought best to incorporate our answer into a booklet for general distribution. Our aim has been to make the answers as plain and concise as possible and we trust the information given herein will prove of interest and value to the readers.

¶ We shall first take up the speed of a lens, the diaphragm stops or aperture, and their use. The speed of a lens is measured approximately by the focal length and largest diaphragm aperture at which it will cover a given size plate. To illustrate: a 5 x 7 lens marked F 8, with a focal length of 8 inches should cut the plate for which it is listed at a diaphragm aperture of 1 inch. To prove up the approximate speed of this lens divide the focal length by the working diaphragm aperture which gives the answer, F-8.

¶ Occasionally lenses are made with diaphragm stops marked with the U. S. or Uniform System. This method was simple in design but not as practical as the sounder method of working each stop with the F number or ratio of focus to aperture. The relative stop numbers in the U. S. and F systems are given herewith:

U. S.	1	2	4	8	16	32	64	128
F	4	5.6	8	11	16	22	32	45

The easiest way to remember the relationship one system bears to another is that 16 in the U. S. system is F 16 in the other.

¶ The size opening or area of the stops are so arranged that each smaller stop requires about twice the exposure of the next larger stop. To illustrate: if Stop F-4 requires 1 second exposure, F-5.6 will require about 2 seconds; F-8, 4 seconds; F-11, 8 seconds; F-16, 16 seconds; F-22, 32 seconds; F-32, 64 seconds, and F-45, 128 seconds.

¶ Depth of field or definition is regulated by the diaphragm apertures, and where this is desired it is advisable to focus as sharp as possible on the middle distance and then stop down or reduce the size of diaphragm aperture until the desired depth of definition is obtained.

¶ To illustrate: we have a landscape before us where it is desired to have fine definition throughout the picture. Open lens to its largest working aperture and focus on an object in the middle distance or center of picture. To even up the definition decrease the size of stop or diaphragm aperture until everything becomes sharp. Should you focus sharply on foreground and then stop down to sharpen the middle and extreme distance it would have required a smaller aperture and therefore more exposure to have obtained the same results.

¶ In photographing groups always focus on a figure half way between center and edge of plate, and where there are several rows of figures on middle row, stopping down until the desired amount of definition is obtained.

¶ We shall now take up the various kinds of work required of a lens, showing that one objective will not do all classes of work and why, and choosing the best one for the purpose.

HOME PORTRAITURE

¶ Portraiture at home or in the studio requires a lens working at the greatest possible speed on account of the light difficulties.

¶ The lenses usually sold and advocated for this purpose are ones working from F-4.5 to F-6. This class of work does not require fine definition or detail and the lenses are usually small in size and of medium focal length. Long focal length gives better perspective but in order to gain this desired quality and still retain speed, the diameter of the lens must be increased, so that it is no unusual thing to see a portrait lens with the lenses measuring 4 inches to 6 inches in diameter.

¶ To better illustrate this point we will take as an illustration our No. 3 Vitax, a strictly professional lens which has a focal length of 16 inches and an aperture of $4\frac{3}{16}$ inches, thereby giving a speed of F-3.8. This lens will cut an 8 x 10 plate with good definition when used at its largest aperture but can be used on much larger plates for portrait work of every description. This lens on account of its size and weight would be impracticable for hand cameras or even view cameras. The most desirable lenses for home portraiture or portrait work which requires a portable outfit, are our Series II F-4.5 Velostigmat, Versar Portrait and View lens F-6 and where artistic effects are desired which will render prints, "as the eye sees," the Verito diffused focus F-5 lens is in a class by itself.

LANDSCAPE

¶ Workers in landscape photography can be divided into two classes: one desiring all the detail and fine definition that can be obtained, while the other desires soft or pictorial effects similar in appearance to old steel etchings. Our Series I or II Velostigmat will be found perfect objectives for rendering fine definition, as they are Anastigmat lenses of the highest type, fully corrected and optically perfect.

¶ For those workers desiring pictorial or artistic effects our Verito Diffused Focus lens will prove of untold value. It has the faculty of making those soft, sketchy

negatives without wiry definition. The planes are rendered true and the perspective is ideal. This lens is now being used exclusively by some of the best known pictorial and landscape workers.

SPEED WORK

¶ Speed work with reflecting type cameras requires a lens with the greatest speed, as oftentimes it is necessary to use the highest speed of the shutter and make exposures on dark days when a slow lens would be absolutely worthless.

¶ Our Series II Velostigmat working at the great speed of F-4.5 is an ideal objective for this work, as it covers the size plate for which it is listed to the corners at its largest aperture and the illumination, depth and definition are thoroughly satisfactory.

ARCHITECTURAL WORK

¶ Architectural work requires an objective fully corrected for every optical quality, free from astigmatism, curvature of field and distortion. As extreme speed is not the necessary quality in a lens for this work, we recommend our Series I Velostigmat F-6.3, which is an ideal objective for this purpose, because of its perfect corrections and great covering power.

COPYING, ENLARGING, ETC.

¶ Copying, reducing and enlarging are best accomplished by the use of a moderate speed anastigmat with absolute flatness of field and fine corrections. Our Series I Velostigmat having these good qualities, will be found especially desirable for this work, as it can be used on plates two sizes larger than it is listed for by stopping it down.

WIDE ANGLE WORK

¶ Where it is necessary to work in confined space, the Wide Angle lens will be necessary because of its short

focal length and wide angle of view. Good work can be done with our Symmetrical Wide Angle or Extreme Wide Angle lenses, the first having an angle of 80 degrees and the second of 100 degrees, but our Series III Velostigmat F-9.5, 90 degrees, is by far the most desirable objective for this class of work because of its great speed, fine illumination and optical corrections. It gives a perfectly flat field and covers the plate at its full working aperture, and is one of the few wide angle lenses on the market that can be used successfully for flashlight exposures.

¶ To sum the matter up we append the first, second and third choice of lenses for the various kinds of work mentioned.

HOME PORTRAITURE

First choice, Series II Velostigmat F-4.5.

Second choice, Versar F-6.

For soft effects, Verito F-5.

LANDSCAPE

First choice, Series I Velostigmat F-6.3.

Second choice, Series II Velostigmat F-4.5.

Third choice, Versar F-6.

For pictorial effects, Verito F-5.

ARCHITECTURAL WORK

First choice, Series I Velostigmat F-6.3.

Second choice, Series II Velostigmat F-4.5.

Third choice, Versar F-6.

SPEED WORK

First choice, Series II Velostigmat F-4.5.

Second choice, Series I Velostigmat F-6.3.

Third choice, Versar F-6.

COPYING, REDUCING AND ENLARGING

First choice, Series I Velostigmat F-6.3.

Second choice, Series II Velostigmat F-4.5.

Third choice, Versar F-6.

WIDE ANGLE WORK

First choice, Series III Velostigmat F-9.5.

Second choice, Extreme Wide Angle.

Third choice, Symmetrical Wide Angle.

¶ A general purpose or all around lens is impossible to make. We believe the nearest approach to this ideal objective will be found in our Series I Velostigmat F-6.3. or for a cheaper lens our Versar F-6.

VELOSTIGMAT LENSES

¶ The manufacture of photographic lenses is a complicated one involving the installation of expensive machinery, employment of skilled labor, to say nothing of the knowledge and experiments necessary on the technical end.

¶ Theory in lens building has its place but practical results are demanded. Therefore a lens may be theoretically correct but as a practical working tool for one who must have results, a blank failure. The incorporation of the two branches, practical and theoretical, makes an ideal combination, as one must have the services of the other at one time or another. In our lens department these two branches have been drawn together with the result that our product is as near perfect as money, experience, skill and brains can make.

¶ Wollensak Velostigmats are lenses built on the anastigmat principle, being fully corrected for every optical condition. The word "Velostigmat" is a trade name adopted to distinguish Wollensak Anastigmats from other makes and is derived from the Latin words meaning "velocity" and "stigmatism." The glass used in making this lens is of the very highest grade possible to obtain and no expense is spared to eliminate any possible error that might occur in the making of a Velostigmat from the time the moulded glass is started until the lens is completed.

¶ The average photographer has a misconception of the possibilities of the Anastigmat lens when compared with lenses of the Versar type. Like a fine tool of any kind the Anastigmat requires more careful handling, in fact more thought in operating it to get the best results but when once the user has discovered the wonderful possibilities of it, the results obtained will be so far in advance of those of any other type of lens that there is no comparison. Exposures can be made with the Anastigmat lens at times when cheaper lenses would be of absolutely no use.

¶ In choosing a lens do not be misled in the belief that one lens will do all kinds of work with the best results. For portraiture, a portrait lens; for speed work, a speed lens; for as near an all-around lens as can be obtained, an Anastigmat working at a moderate speed, is the most desirable.

¶ We have repeatedly said there are cheaper Anastigmats but they are not as good, there are higher priced ones but they are no better, and this backed by our guarantee, which is a very liberal one, gives absolute protection to the purchaser of Wollensak Velostigmats.

¶ A fast lens in a slow shutter is folly if it is intended to be used for speed work. Therefore in choosing an equipment it is well to look to the selection of a shutter which will work at the maximum exposure possible with the lens.

¶ The Optimo shutter is built upon an entirely different principle from any other upon the market, as "the leaves revolve." It works up to $\frac{1}{300}$ of a second, which is ample speed for almost any subject or action.

¶ *Results* after all are what is desired and the fact that our lenses and shutters are giving results to hundreds of the best known workers in this country, coupled with the fact that we consider no product of ours sold until the customer is satisfied in every respect,

should be convincing proof that we endeavor by all means possible to have each lens or shutter of our manufacture give absolute satisfaction in every respect.

¶ A special department is maintained for the exclusive service of our dealers and their customers wherein questions in regard to our products and the selection of an outfit most suitable for various purposes will be answered in an honest, frank manner. No charge will be made for this service and we trust readers of this booklet will have no hesitancy in addressing us at any time. Communications of this nature should be addressed to

Promotion of Trade Department
WOLLENSAK OPTICAL COMPANY
ROCHESTER, N. Y.

¶ The best advertisement for a product is the good word of one who has used and obtained results with it, as each purchaser of a lens or shutter equipment must necessarily, in a way, be his own judge of the good or bad qualities of the instrument as well as its adaptability to his own particular purpose.

CARE OF LENSES

¶ Like a fine instrument or tool of any kind a photographic lens requires care and attention.

¶ It should be cleaned occasionally by blowing off surplus dust, etc., and then carefully wiped with a fine piece of silk which has been washed several times or with Japanese tissue, a supply of which we will be pleased to send to any address upon receipt of a two-cent stamp.

WOLLENSAK OPTICAL COMPANY
ROCHESTER, N. Y.

“Your dealer is a Wollensak dealer”

VELOSTIGMAT SERIES I F-6.3.



It is a wonderful lens, the best I have ever used.

CHESTER STEVENSON
North Yakama, Wash.

THE SERIES I are fully corrected Anastigmats, "optically perfect" and as near "all around" or "general purpose" lenses as can be made.

Their small size makes them desirable for pocket and hand cameras.

They can be used as wide angle lenses on plates two sizes larger than listed for by stopping down.

Each combination is a perfectly corrected lens, the focus being double the equivalent of the double combination and can be used singly by stopping down.

VELOSTIGMAT SERIES I F-6.3.

No.	Equivalent Focus	Plates Covered Sharply at F-6.3	With Barrel or Regno Shutter	With Optimo Shutter
1	5 ins.	3 1/4 x 4 1/4	\$ 25.00	\$ 35.00
2	6 "	4 x 5	30.00	40.00
3	7 "	5 x 7	38.00	50.00
4	10 "	6 1/2 x 8 1/2	58.00	70.00
5	13 "	8 x 10	70.00	85.00
6	16 1/2 "	11 x 14	125.00	

1-A Special, 3 1/4 x 4 1/4-5" focus in mounts to fit No. 3 F. P. K., \$20.00

2-A Special 4 x 5-6 1/2" focus in mounts to fit No. 3 A and No. 4 F. P. K., \$25.00.

VELOSTIGMAT SERIES II F-4.5.



It is by far the best Anastigmat lens I have ever used.

J. E. MOCK
Rochester, N. Y.

THE SERIES II is a fully corrected Anastigmat covering the size plate for which it is listed at F-4.5.

The smaller sizes are especially desirable for reflecting type cameras and the larger sizes for portrait and group work both "at home" and in the studio, they being equipped with our simplified diffusing adjustment.

The Series II is absolutely guaranteed to be at least equal to any objective of like character upon the market regardless of make or price.

VELOSTIGMAT SERIES II F-4.5.

No.	Equivalent Focus	Plates Covered Sharp y at F-4.5	With Barrel or Regno Shutter	With Optimo Shutter
1	5 ins.	3 1/4 x 4 1/4	\$ 35.00	\$46.00
2	6 "	4 x 5	42.00	53.00
3	7 "	5 x 7	50.00	62.00
4	9 1/2 "	6 1/2 x 8 1/2	80.00	92.00
5	12 "	8 x 10	120.00	
6	15 1/2 "	11 x 14	200.00	

The No. 4, 5 and 6 sizes have diffusing adjustment.

VELOSTIGMAT SERIES III F-9.5.



It is putting it mildly when we say we are more than pleased with the Series III Velostigmat.

HARRIS & EWING
Washington, D. C.

THE SERIES III is a fully corrected wide angle Anastigmat giving a perfectly flat field of 90 degrees and covering the plate sharply at full aperture.

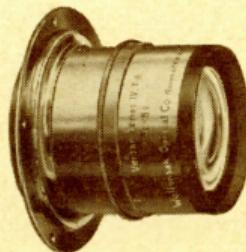
Especially desirable for interior, architectural, flashlight work and all other purposes where it is necessary to work in confined space.

VELOSTIGMAT WIDE ANGLE SERIES III F-9.5. Angle of Field, 90 Degrees

No.	Equivalent Focus	Plates Covered at Full Aperture F-9.5	With Barrel or Regno Shutter	With Optim Shutter
3	4 $\frac{3}{4}$ ins.	5 x 7	\$30.00	\$42.00
4	5 $\frac{7}{8}$ "	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	40.00	52.00
5	6 $\frac{7}{8}$ "	8 x 10	50.00	65.00
6	9 $\frac{3}{4}$ "	11 x 14	85.00	

VERSAR PORTRAIT AND VIEW

F-6.



It is the best "all around" lens that I ever had.

R. M. WENGER
Richmond, Ind.

THE VERSAR is of the symmetrical type, the two elements being corrected for use singly can be used where a lens of double the focal length of the complete lens is desired.

The Versar is recommended to any one desiring a compact, inexpensive objective for general work.

The Versars will not cover the size plates for which they are listed to the extreme corners unless stopped down.

VERSAR PORTRAIT AND VIEW F-6.

No.	Size	Equivalent Focus	Price	
			Mounted in Barrel	With Regno or Studio Shutter
1	4 x 5	6 1/2 ins.	\$16.00	\$17.00
2	5 x 7	8 3/4 "	19.00	20.00
3	6 1/2 x 8 1/2	9 3/4 "	25.00	27.00
4	8 x 10	11 3/4 "	33.00	35.00
5	10 x 12	14 3/4 "	42.00	45.00
6	11 x 14	16 1/2 "	54.00	57.00
7	14 x 17	18 1/4 "	70.00	75.00
8	17 x 20	22 1/2 "	90.00	95.00

VERITO DIFFUSED FOCUS F-5.



The Verito is absolutely right in every respect for pictorial work, both landscape and portraiture.

WM. H. KUNZ
Boston, Mass.

THE ideal objective for the worker in pictorial or artistic landscape and portrait photography.

A double lens that makes sketchy negatives "as the eye sees" free from ghost, flare, etc., and with a perspective and delicacy about the modeling impossible to obtain with any other lens.

Sharp, wiry negatives with fine detail cannot be made with the Verito unless it is stopped down to F 16.

VERITO DIFFUSED FOCUS F-5.

("True to Life")

No.	Size	Equivalent Focus	Diameter of Lens	Price with Studio Shutter
1	5 x 7	9 ins.	2 1/4 ins.	\$25.00
2	6 1/2 x 8 1/2	11 1/2 "	2 1/2 "	32.50
3	8 x 10	15 "	3 "	45.00
4	11 x 14	19 "	3 9/16 "	60.00

OPTIMO, "THE SHUTTER OF SHUTTERS"



The Optimo shutter is perfection.

J. E. TAYLOR
Baltimore, Md.

THE OPTIMO shutter was designed to meet the demand for a shutter, compact in size and simple in operation, which would work fast enough to successfully photograph rapidly moving objects, etc.

"The leaves revolve" in the Optimo, opening and closing with a star-shaped aperture, thus giving the greatest possible illumination to the plate.

It sets and releases with push buttons and works without recoil or jar up to $\frac{1}{300}$ of a second.

No.	Light Aperture	Price	No.	Light Aperture	Price
1	$\frac{3}{4}$ in.	\$14.00	3	$1\frac{3}{8}$ ins.	\$18.00
1-A	$\frac{7}{8}$ "	15.00	4	$1\frac{3}{4}$ "	20.00
2	1 "	16.00			

The 1-A Size is specially adapted to No. 3-A Folding Pocket Kodaks and other compact cameras.

FOR years the firm of Wollensak has been making photographic lenses and shutters exclusively. Each instrument leaving the factory is guaranteed in every respect, no Wollensak product being considered sold until the customer is satisfied in every respect, the policy being to "Let The User Judge."

