

EDMUND'S FAMOUS BEGINNER'S LENS KITS



-  Magnifier
-  Telescope
-  Slide Viewer
-  Microscope

8-PAGE PLAN BOOK AND 10 ASSORTED LENSES . . . KIT #2 Only **\$1.00** Ppd.

The quality lenses in these fascinating kits are worth many times the price you pay. Because they are slightly chipped at the edges we can offer them at these low prices. They are of good optical quality and are ideal for the classroom, scout projects, hobbycrafts and experiments.

Any one of the kits is excellent for teaching and studying the principles of optics. They contain a select assortment of both positive and negative lenses. The instructions included with these kits are fully illustrated and show how to make many useful optical instruments. All can later be put to work in other projects for the classroom, clubroom or home. With this in mind, don't miss getting Edmund's "Fun With Optics" described below.

KIT NO. 2

Includes 10 lenses: 5 plano-convex, 3 double-convex, 1 double-concave, and 1 meniscus. You can make a 5X Galilean Telescope, 8X or 16X Astro Telescope, 10X Double Lens Magnifier, 3 1/2X Pocket Magnifier, 40X Microscope, 35mm Slide Viewer or a wide variety of other useful instruments. With 16-page instruction booklet. **\$1.00 Postpaid**

KIT NO. 5

This larger, more versatile kit includes 45 lenses: 13 plano-convex, 7 double-convex, 3 double-concave, 1 standard meniscus, 3 meniscus-negative, 8 meniscus-positive, 6 plano-concave, 4 miscellaneous lenses. For making instruments listed under Kit No. 1 and many, many more. With 16-page instruction booklet. **\$7.00 Postpaid**

KIT NO. 10

Includes extra large assortment of 80 lenses: 19 plano-convex, 14 double-convex, 8 double-concave, 4 meniscus-negative, 20 meniscus-positive, 9 plano-concave, 6 miscellaneous lenses. Perfect for group work . . . for building a number of the same optical instruments at one time. With larger, more inclusive instruction book. Complete kit. **\$12.50 Postpaid**

GET IT TODAY! "FUN WITH OPTICS", A PROJECT BOOK



Step-by-step, illustrated instructions on building all of the following optical instruments . . . inexpensively

- Telescopes
- Projectors
- Viewers
- Microscopes
- Binoculars
- Spectroscopes
- Magnifiers
- Riflescopes
- Many More

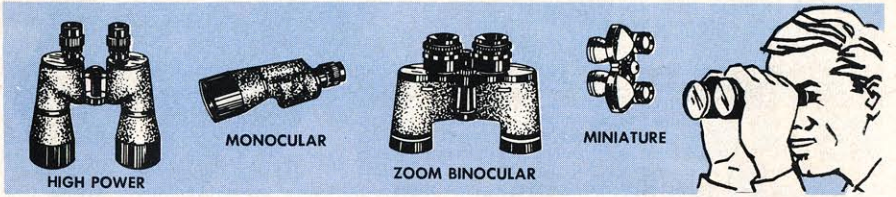
Cram packed with exciting fun . . . only 50¢

What an amazing treasurehouse of practical information. Dozens of optical projects . . . each carefully worked out, fully described and simply diagrammed. 32 pages, each measuring 8 1/2" x 11". Interesting projects for the photographer, artist, astronomer, zoologist, botanist, biologist . . . projects useful to almost any science-minded hobbyist.

One of the most practical optical manuals available. So simply and plainly written that any one can easily follow the instructions. Includes a primer section on lenses, prisms and optical parts. Build the instruments described at a small fraction of their normal retail price. Edmund can furnish, at low cost, the lenses, prisms and parts you will need.

See pages 61 to 78 for optical parts.

No. 9050 Only 50¢ Postpaid



IMPORTANT FACTS ABOUT BINOCULARS



Binoculars and Field Glasses. A Galilean field glass consists of two telescopes, one for each eye. This type of glass becomes very bulky in powers beyond 3X. Sportsmen and hunters seldom use them because of their size, weight, and small field of view. Sometimes field glasses are constructed to resemble prism binoculars. Do not be deceived. If the object lens is directly in front of the eyepiece, it is unlikely to be a true prism binocular. (See illustration at left.)

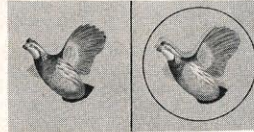
The prism system in a binocular enables a longer light path (related to magnification) to be built into a much more compact unit. Objective lenses too are farther apart than in a field glass, thus increasing the desirable stereoscopic effect.

Optical Correction refers to sharpness of image without distortion; and absence of undesirable color fringes.

Binocular Markings . . . 6X30, 7X50, etc. The first figure refers to the power, a magnification of 6X, 7X, etc. The second figure is the diameter in millimeters of each objective lens. There are 25.4mm to one inch.

Relative Light Efficiency. This item refers to the brightness of the image seen through a binocular. It takes into consideration not only relative brightness ("relative" size of the exit pupil) but also light loss (loss of image brightness within the instrument). A relative light efficiency figure is given for the binoculars and monoculars listed on the following pages. The higher this figure is, the brighter the image will be.

Zeiss type or American. Actually, the difference between the two is one of design. American type is more streamlined, and perhaps a little easier to hold. Zeiss are more square and angular in their design characteristics.



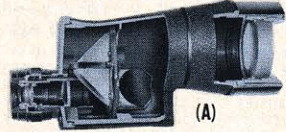
Optical Alignment Because binoculars have two separate optical systems, it is vitally important that each is correctly collimated, aligned one with the other; otherwise one eye looks in

one direction and the second eye in another. If the misalignment is minor the eyes will accommodate for it. When collimation is poor, eye strain is likely, accompanied by headaches. All the binoculars we make and supply are correctly adjusted and collimated before they leave our plant.

Center or Individual Focus. Each person has a preference. Both have advantages. With the center focus adjustment, the right eyepiece is individually adjustable. Once set, the center focus will adjust for both eyes. Individually focusing eyepieces are used by the Armed Forces because they offer more sturdy construction and less chance for moisture to enter system. Sportsmen usually prefer individual focus. Bird watchers like center focus.

Zoom Binoculars provide variable magnification which is sometimes a great advantage. Disadvantages however, are: (A) they are apt to lose their collimation, (B) are bulky, (C) and they are unsuited to rough handling, (D) few really good models are available.

How to Select your Binoculars. How will you use them? The 6X30 is popular for sports events. Compact and comparatively lightweight, it can easily be carried all day. Because of its light weight, it is a fine binocular for the whole family to use. For poor light conditions, choose the 7X50. Though they are a little larger and heavier, they have a relative light-efficiency of 75 and so are excellent for viewing in low light situations. Binoculars, exceeding 9X, require a rest or a tripod because when hand held they greatly magnify minor movements.



BINOCULARS ARE BUILT RIGHT HERE IN THE EDMUND PLANT



Building binoculars in the Edmund plant, as you can see from the cutaway (A) is a precision operation. Assembly itself (B) and adjustment of prism clusters (C) are vital to assure you full satisfaction. In addition to our own binoculars, we offer fine quality imported ones from the better Japanese optical plants. Lightweight and built to withstand rugged outdoor use, all are true prism binoculars with achromatically corrected oculars and objectives. All air-glass optical surfaces are coated except the field lens.

Cheaper binoculars are available, but our experience has been that the cheapest ones are not a good investment. All binoculars supplied by Edmund Scientific, whether built by us or imported, must be completely satisfactory to you, or we refund your money in full.

Our Company renders a service that few other importers and retailers do. Every imported binocular is checked on our own optical collimator before it is offered for sale. It's a long, rough voyage to the U. S. A. and from our experience, we suggest that you never buy an imported pair without this safeguard.

