Answer #313

Here is the photograph of the experimental setup:

Here are all of the photographs of "LIGHT" with the interspersed object identified:

(1: (e) a sheet of white paper.)  (2: (b) a concave Fresnel lens.)
(3: (a) a convex Fresnel lens.) (4: (d) a sheet of clear plastic.)

(5: (g) a concave "fly eye" Fresnel lens.) (6: (c) a beaker of water.)

(1) You can't see anything through the sheet of white paper, although it is a bit gray. (2) The negative (concave) Fresnel lens produces a smaller image. (3) The positive (convex) Fresnel lens produces a larger image, and has a bit of chromatic aberration. (4) The clear plastic (blank transparency) looks the same as the original. (5) The concave (negative) "fly eye" Fresnel lens produces an array of small images. (6) The beaker of water is a convex cylindrical lens that inverts the image left-to-right and introduces lots of aberration. There is no picture looking through a convex "fly eye" Fresnel lens because we don't have one.

For questions and comments regarding the Question of the Week contact Dr. Richard E. Berg by e-mail or using phone number or regular mail address given on the Lecture-Demonstration Home Page.