

The instrument, embodying latest advances in industrial optics, is available in a large range of wide field objectives and wide field eyepieces to provide the variety in size of field, working distance, and magnification needed for the newest specialized factory applications.

A typical combination of wide usefulness, for instance, would be a 1.0 objective in combination with a 10 eyepiece, which would give 10 magnification with a 0.79-in. field and a 3.77-in. working distance.

Through other combinations, magnification up to 150 is possible.

The microscope was designed in response to demands from industry for an instrument which could cope with the ever-increasing precision of working tolerances, according to James R. Benford, head of the Bausch & Lomb microscope design department.

"In the last 15 years, working tolerances of .0001 inches and less have become almost commonplace instead of the rarity they used to be," Benford pointed out. "This has resulted in a need for increased use of optical instruments in both manufacturing and inspection."

The industrial stereomicroscope permits comfortable observation of an enlarged image with a wide field of view, long working distance and three-dimensional, easily-interpreted qualities. When built into a machine, assembly, or inspection set-up, it provides for continuing observation of the operation so that manufacturing and inspection standards can be adhered to, especially in such processes as fine machining, assembling of minute parts, and making tiny welds in electronic wiring.

It embodies vertical eyepiece tubes with adjustments for interpupillary distance and balancing acuity of the observer's eyes, binocular dustproof prism bodies, and illuminator socket.

**Framing Anchors as Joist Hangers.**—Instructions on the use of Trip-L-Grip framing anchors as joist hangers are detailed in a new folder being distributed to architects and home builders by Timber Engineering Company, affiliate of National Lumber Manufacturers Association.

Although the anchors are designed for all secondary connections in wood frame construction, they have their largest use as joist hangers because of resultant economies in time, labor, materials and space. They are adjustable, on the job, to joists of uneven width and depth, and can be applied before installation. They eliminate ledger strips and all notching, fitting and shimming of joists, and do away with old-fashioned toenailing of other connections.

An increasing use of these framing anchors is in clear span construction with trussed rafters. By placing the anchors in position on the plate in advance, the trussed rafters are erected more quickly and easily.

Detail drawings of other uses of the anchors are included in the folder, copies of which may be obtained on request to Timber Engineering Company, 1319 18th Street, N. W., Washington 6, D. C.

**Flying Saucers.**—An electrical discharge phenomenon produced in a vacuum bell jar at the Engineer Research and Development Laboratories, Fort Belvoir, Va., may be a possible solution to the mystery of "flying saucers," according to Noel W. Scott, physicist.

Working with the vacuum bell jar on experiments in mirror and lens coat-

ing, Mr. Scott produced an eerie orange object that bears a striking similarity to the "flying saucers" that many claim to have seen.

For the press, Scott demonstrated the "saucers" and made them behave very much like the real thing. He pumped air out of the bell jar to create a partial vacuum. The air left in the jar was electrified by discharge between highly charged electrodes. He then introduced air from the outside which caused a relatively bright glow to form on some portions of the positive electrode. By varying the amount of air introduced into the jar the color of the "saucers" varied from orange-red to purple, pink to white. The introduction of helium into the chamber produced a green "saucer."

The "saucers" were produced in many of the shapes that have been sighted to date. A wave of a magnet outside the jar and the laboratory-made "saucers" skirted elusively about the rim of the jar, stood still, reversed their fields and in general behaved very much like the real things are said to behave. "The saucers," Mr. Scott said, "remain stationary, move at an excessive rate of speed or change direction almost instantly by altering the direction and intensity of the rays and the electric and magnetic fields, and by changing the atmospheric pressure." This may explain why airplanes, attempting to fly near them, have failed in detecting or sighting them. Once any factor responsible for the formation of this phenomenon is changed, the "saucer" might completely engulf an object, attach itself to it, repel it or fade out completely. Scott also stated the "saucers" have enough substance to cause "blips" and be picked up on radar screens.

Scott said he came upon the "saucers" quite by accident and does not offer this explanation as the only answer to the nationwide "saucers" problem. "It is just one theory," he said, "and not even a new one at that." This theory—the ionization or electrification of air—is well known in science and has been advanced before. Actually, what Mr. Scott did was associate this theory with the "flying saucers" mystery that has kept the nation guessing since 1947. He did this by producing on the laboratory level, a phenomenon peculiar to the upper atmosphere.

"Flying saucers" are thought to possess the same family characteristics as other illuminating atmospheric phenomena. Mr. Scott said, "they probably lie somewhere between the two extremes of streak lightning and the multi-colored Aurora Borealis."

During the several demonstrations for television, magazine, newspaper and newsreel companies at the Engineer Research and Development Laboratories, Mr. Scott repeatedly stated: "The atmospheric conditions necessary for producing this phenomenon are not the *prevailing* conditions that exist in the upper atmosphere. However, it is not altogether improbable that there may be 'occasional' local conditions responsible for this glow which might be interpreted as 'flying saucers.'"

**Hen's Egg Playing Important Role in Fight Against Rabies.**—The common, everyday hen's egg, so popular on America's breakfast tables, is playing a vital role in medical science's efforts to eradicate rabies and other virus-caused diseases. You may like your eggs sunny-side-up, soft boiled, or poached, but scientists at Lederle Laboratories like theirs embryonated. No, that's not a new omelette; it's an egg with a living embryo. In fact, they like these eggs so well that they have used as many as 12,000,000 a year.