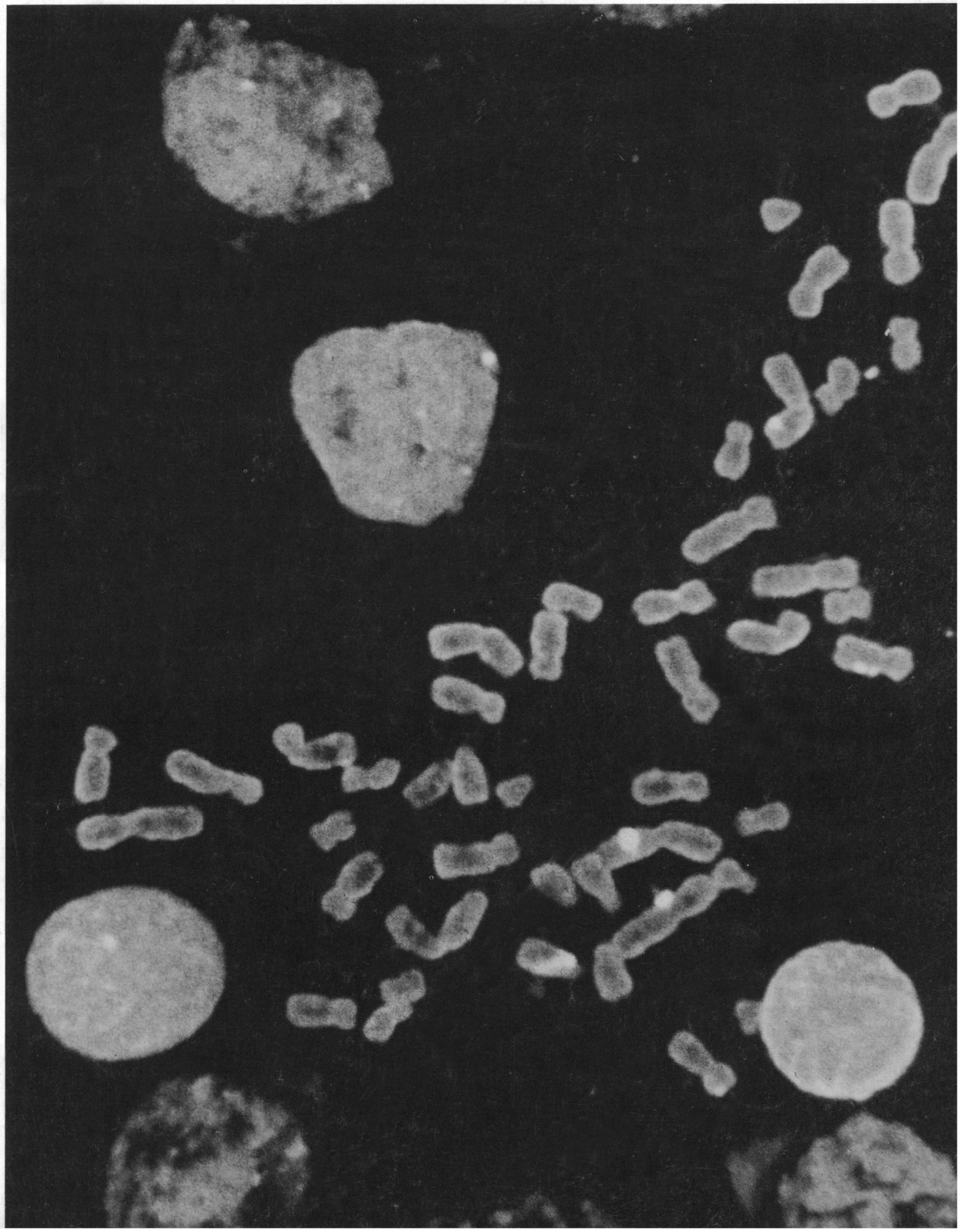
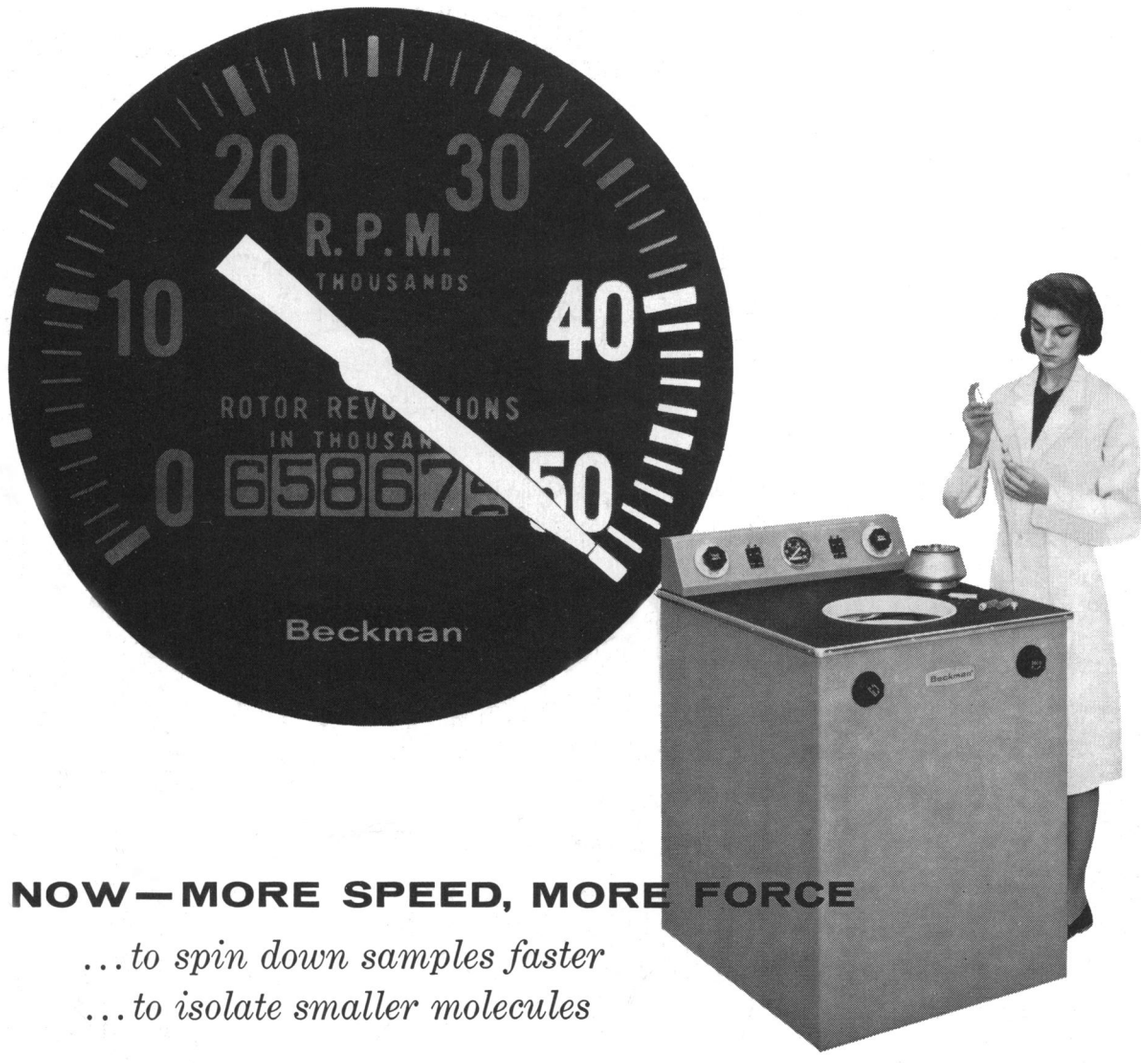
# SCIENCE

28 July 1961

Vol. 134, No. 3474

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

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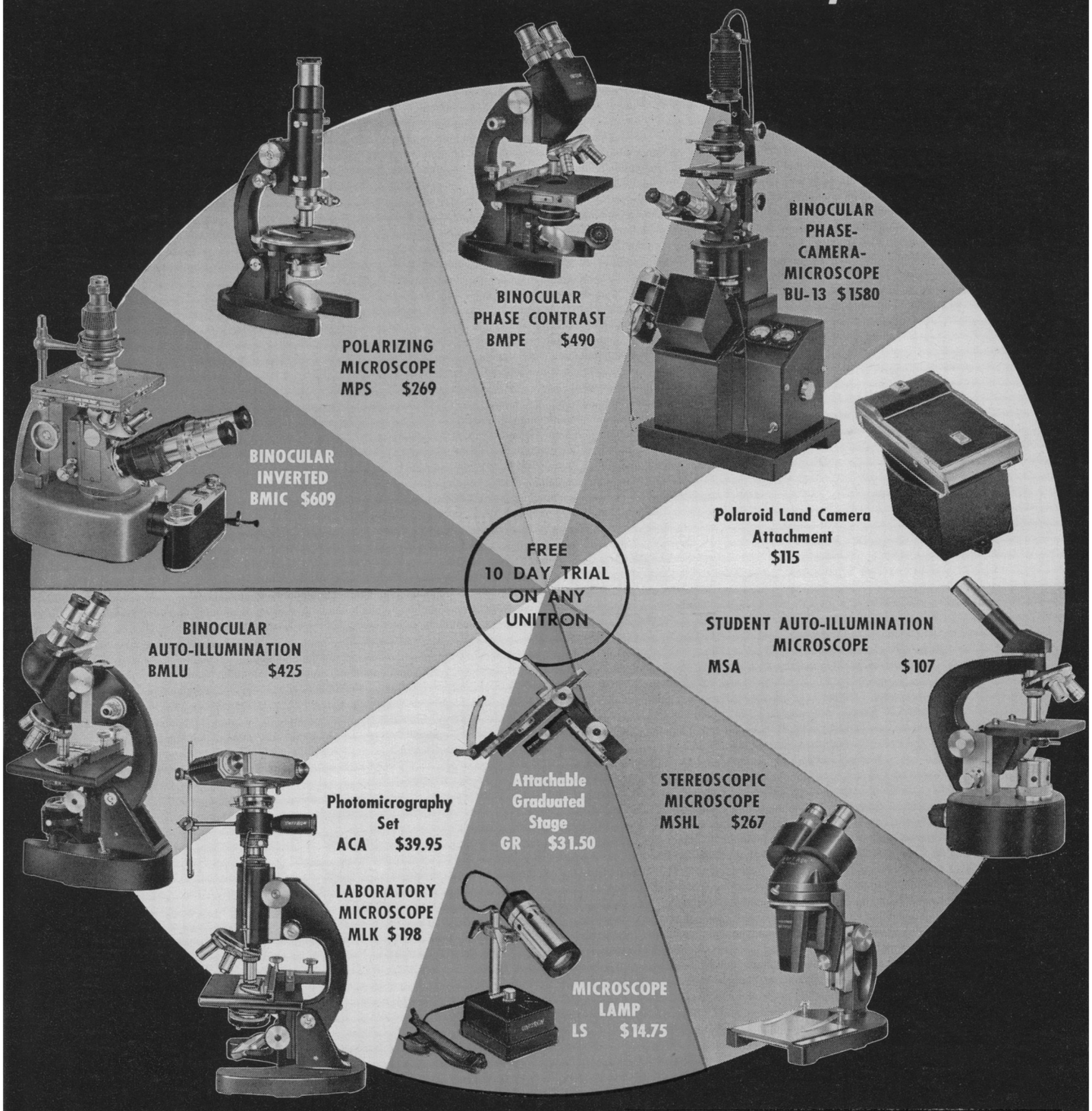


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Fluorescence photomicrograph of human chromosomes from a peripheral blood culture. The preparation was treated with serum from a patient having lupus erythematosus and was subsequently stained with fluorescein-labeled horse antihuman globulin. The human serum containing antinuclear factors apparently reacted with the chromosomes. After the subsequent application of fluorescent antibody, the chromosomes could be seen as yellow, glowing structures when stimulated with ultraviolet light. Normal serum did not react with the chromosomes and did not stain with fluorescent antibody. All of the 23 pairs of chromosomes fluoresce. The resting nuclei also show fluorescence (about × 2700). See page 284. [R. S. Krooth, University of Rochester Medical Center, Rochester, New York]

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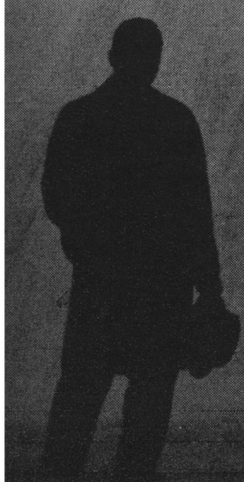

28 July 1961, Volume 134, Number 3474

SCIENCE



SCIENCE, now combined with THE SCIENTIFIC MONTHLY, is published each Friday by the American Association for the Advancement of Science at National Publishing Company, Washington, D.C. SCIENCE is indexed in the *Reader's Guide to Periodical Literature.*

**Editorial correspondence** should be addressed to SCIENCE, 1515 Massachusetts Ave., NW, Washington 5, D.C. Manuscripts should be typed with double spacing and submitted in duplicate. The AAAS assumes no responsibility for the safety of manuscripts. Opinions expressed by authors are their own and do not necessarily reflect the opinions of the AAAS or the institutions with which the authors are affiliated. For detailed suggestions on the preparation of manuscripts, see *Science* **125**, 16 (4 Jan. 1957).

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# Arms Control and Self Control

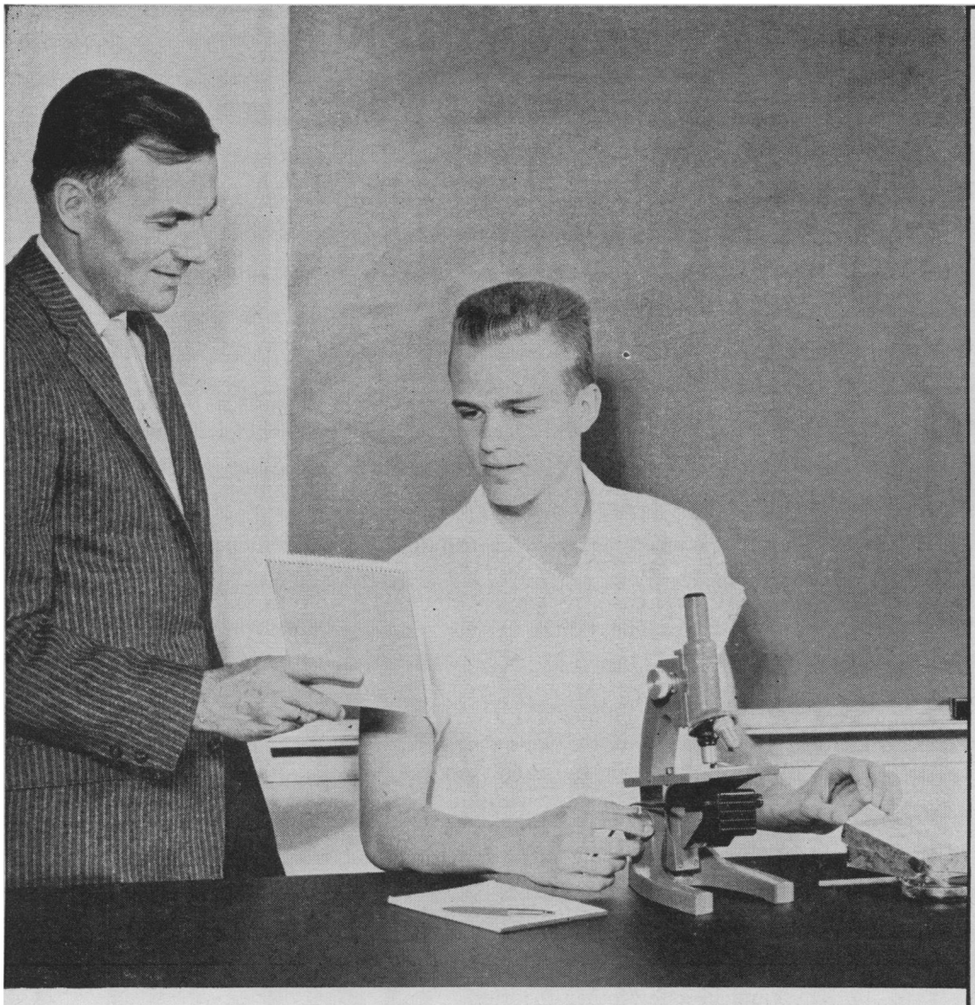
Expectation of gaining a propaganda advantage has led the United States and Great Britain to ask the U.N. General Assembly to review the nuclear test-ban talks, which in almost three years of effort have failed to produce a treaty. The West at this juncture has a good case. Failure to reach agreement does not hinge on some subtle, technical point concerning, say, the conditions under which an on-site inspection may be initiated. The result of such a dispute might be that even if the West were correct, it might find it difficult to make its position understandable. The failure results rather from the not-so-subtle Soviet demand that, in effect, any proposed on-site inspection of a suspected violation must be open to veto by the suspected party.

The very blatantness of this demand has been the cause of speculation about why the Soviets choose to proceed in this fashion. One theory has it that the Russians want to provoke us into renewed testing, so that they can test weapons in the atmosphere and still have the blame fall on us. Another theory is that they cannot afford to have inspection teams moving through the Soviet Union, and so are using the talks to reinforce their position in the U.N. concerning the organization of the U.N. directorate. What the Soviets want in the U.N. is a three-man, or "troika," council—East, West, and neutral—with each member possessing veto power. There is probably some truth in both these theories and in a few other theories as well.

Whichever theory is the most true, one thing is clear. The Soviets see more advantage in the treaty for the West than for the East. To the Soviets, the West may be in the position of a gladiator armed with net and trident who wants to negotiate a treaty regulating the use of sword and buckler. The test-ban talks have aroused considerable interest in the United States in the technology and psychology of arms control. If we are determined to see in the present failure some hope for actually instituting somewhere a system of arms control, then the lesson is that in future efforts we must look for agreements in which all parties stand to gain equally, or think they do.

From the viewpoint of effective propaganda, simple as is the West's case, it still does not, it is true, capture the sweep of the Soviet 4-year plan for complete and universal disarmament. To do this, we would have to come up with something like a 4-year plan for the complete and universal abolition of poverty. Yet the West's case ought to convince a few uncommitted persons and nations. There should be enough grim humor in the world to appreciate the virtues of an inspection system which is designed to prevent bootlegging and yet which permits the bootlegger to suspend surveillance whenever it comes time to run the still.

Present efforts to show how the Soviets put up obstacles to disarmament are necessary to prepare public opinion for the possibility of our resuming, in the absence of an inspection system, nuclear weapons testing. But our position in the East-West struggle may also be improved by simply having in our possession a good demonstration of Soviet intransigence. If, in forthcoming discussions, the demonstration proves particularly effective, then the advantage of keeping it untarnished may be one more factor that must be considered in deciding whether to resume testing.—J.T.



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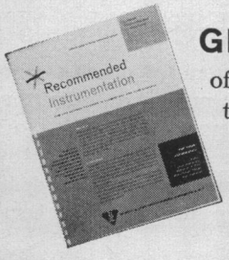


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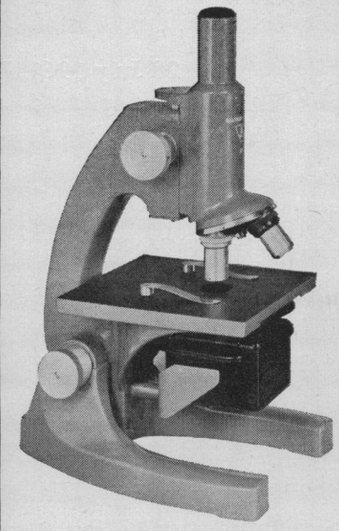

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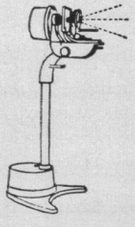

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