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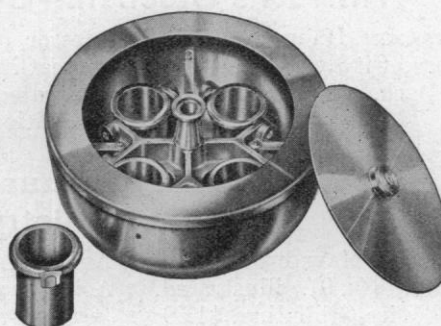
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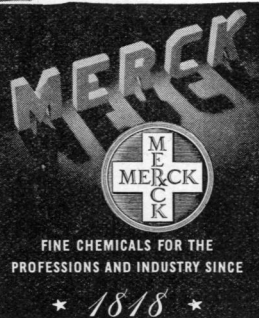
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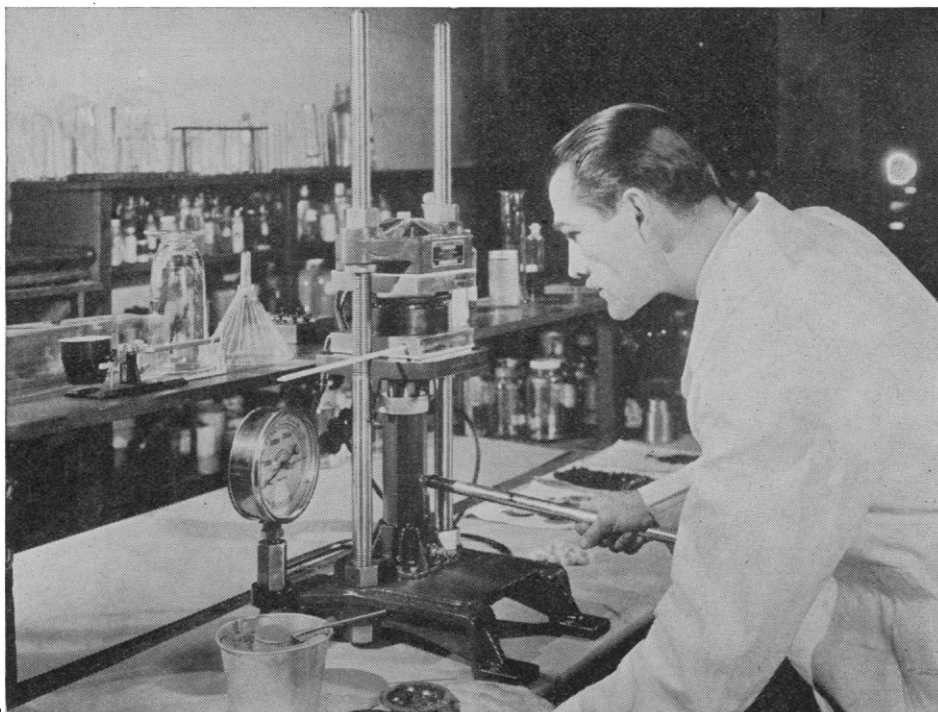
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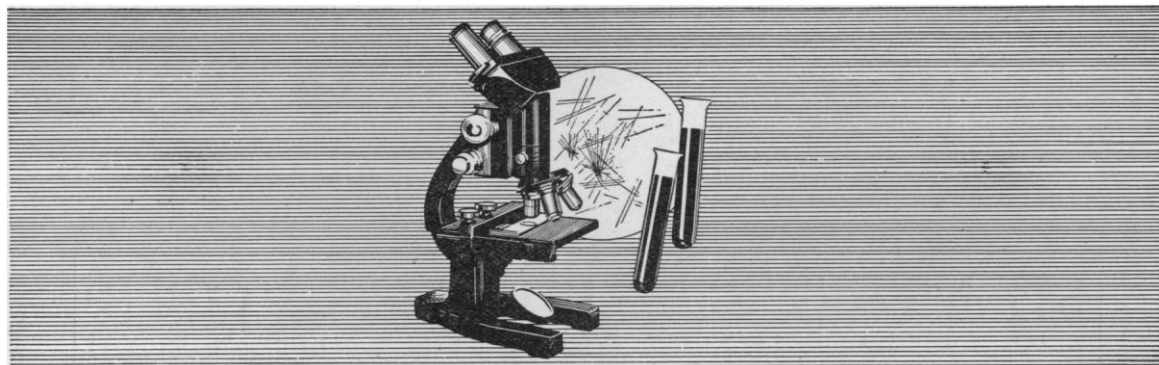
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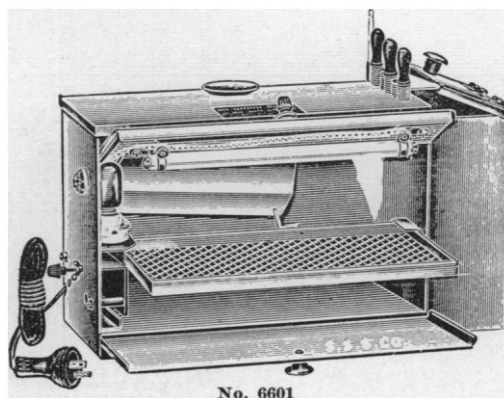
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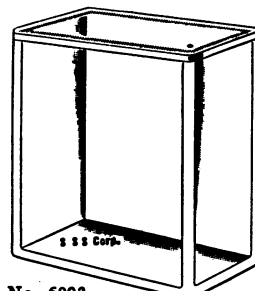
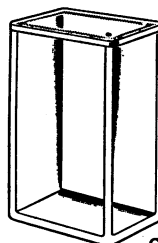
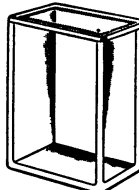
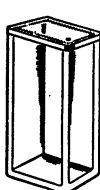
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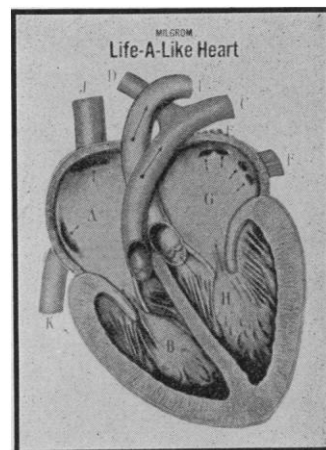
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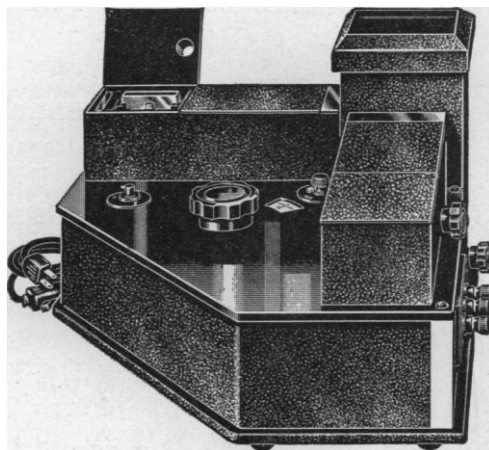
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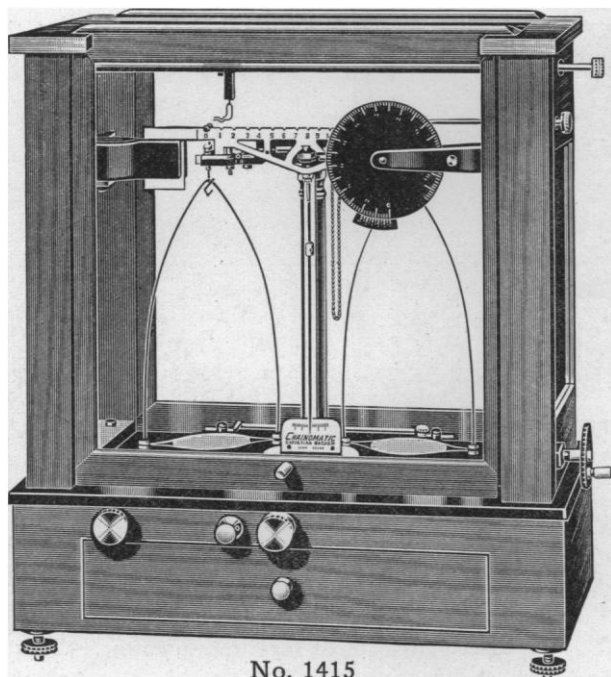
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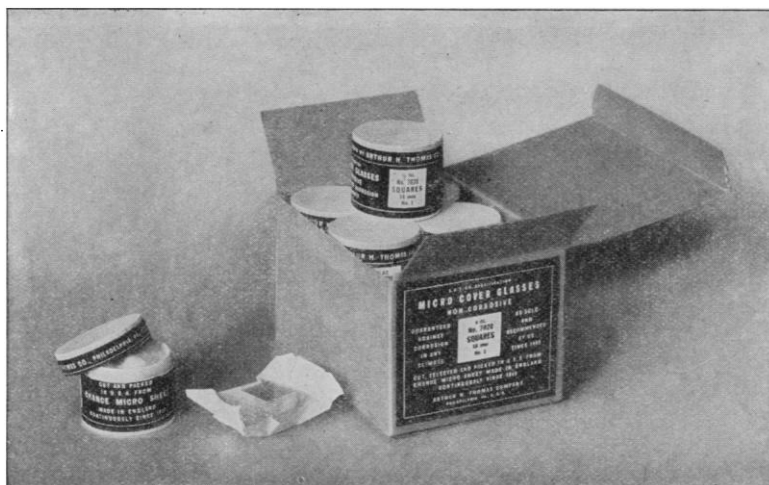
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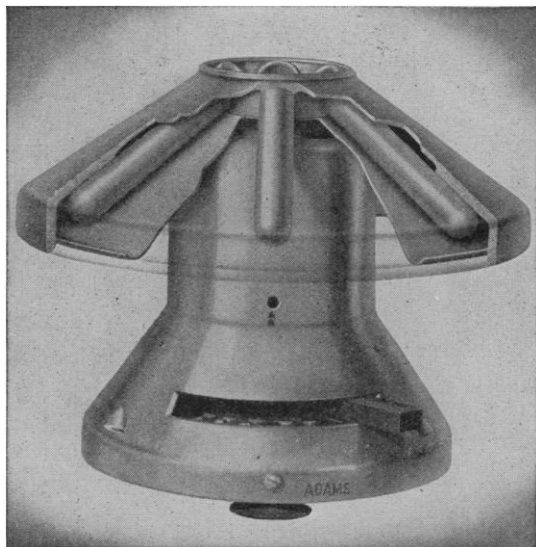
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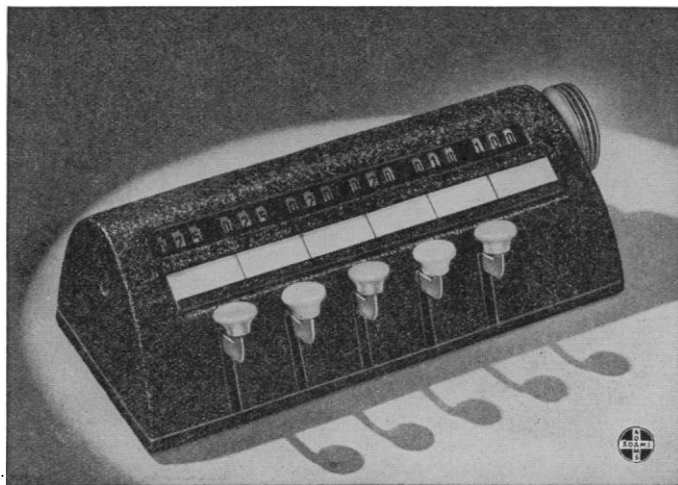
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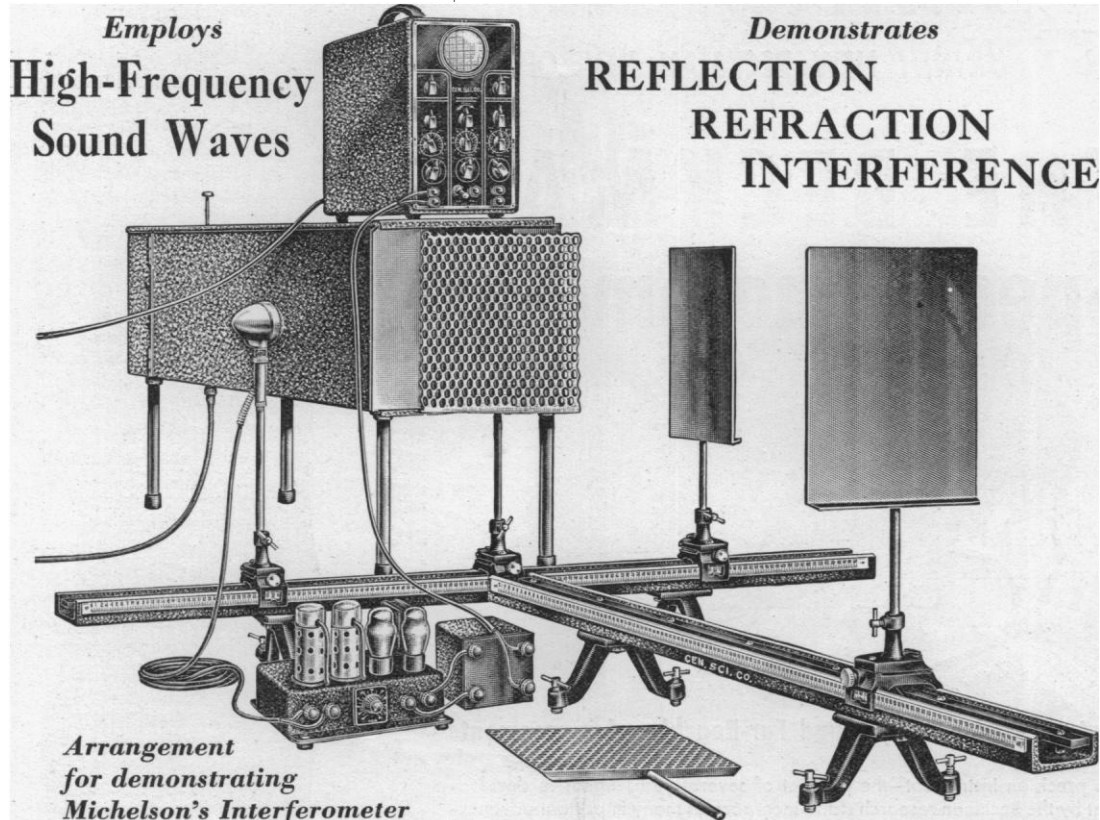
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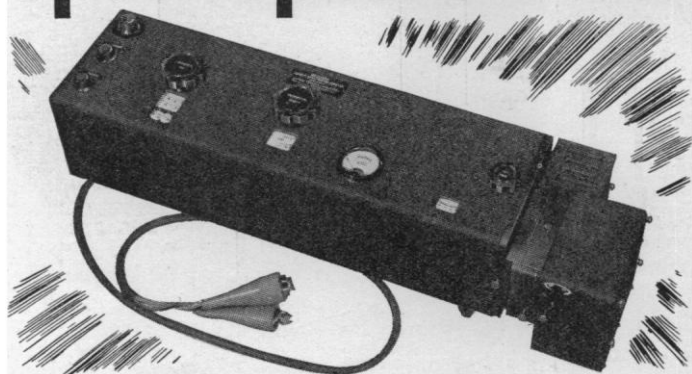
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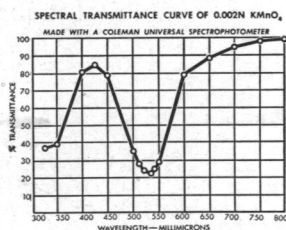
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# COLEMAN *Universal Spectrophotometer*



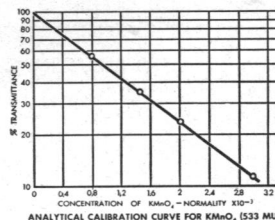
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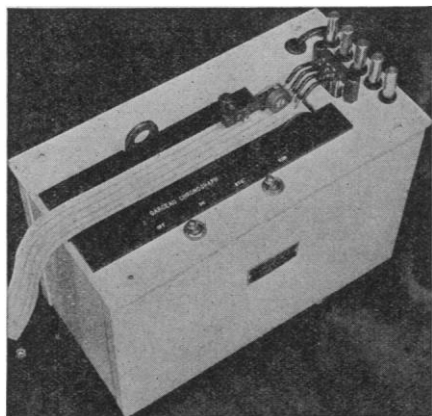


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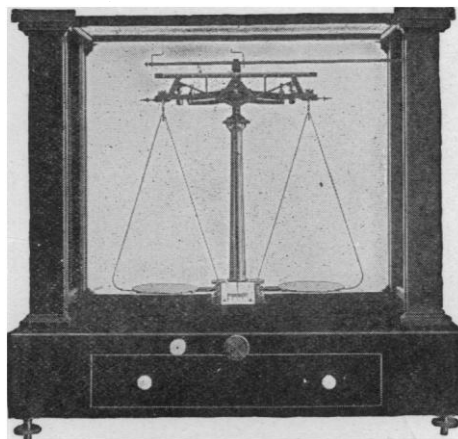


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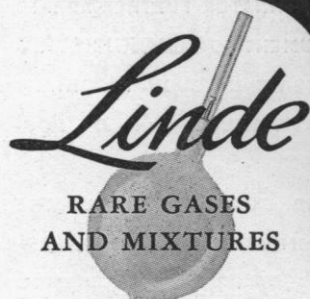
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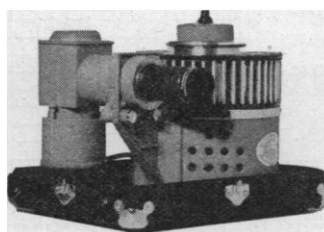
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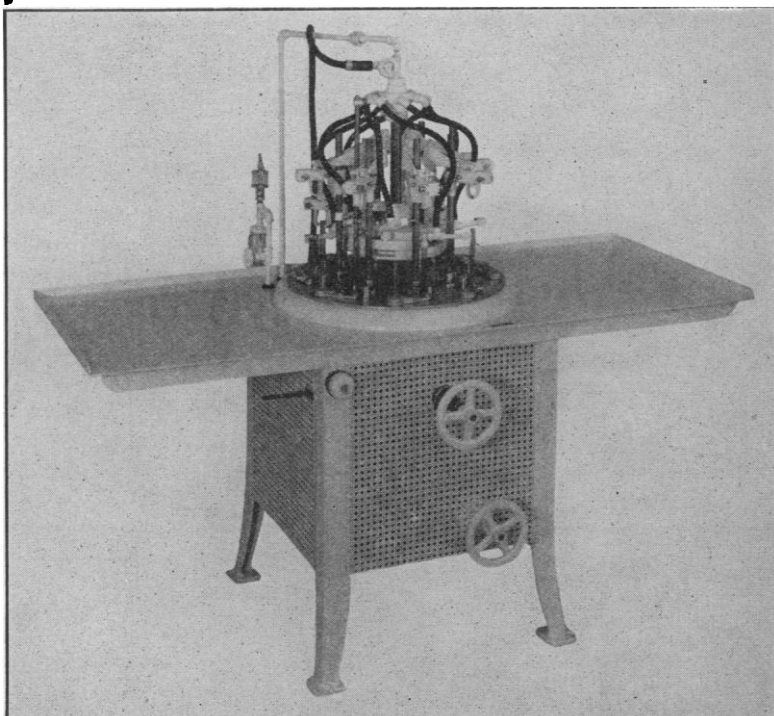
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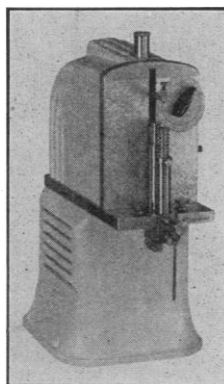


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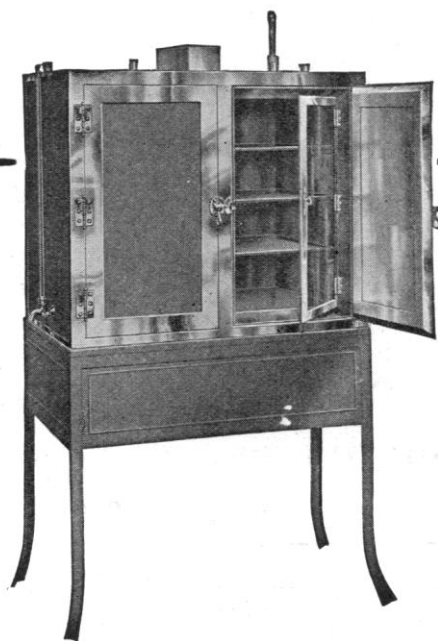
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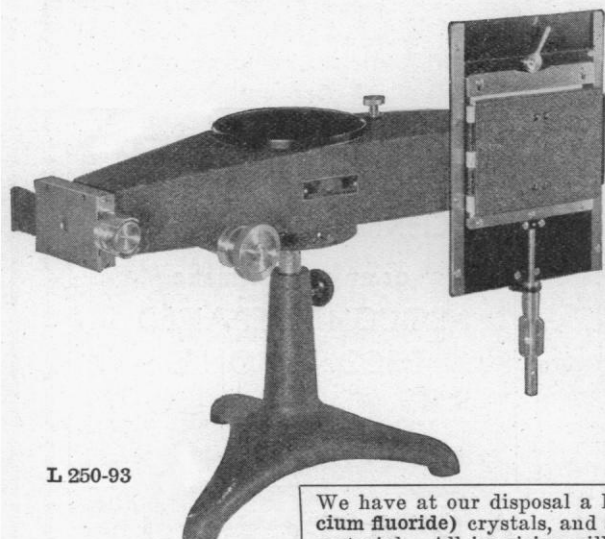
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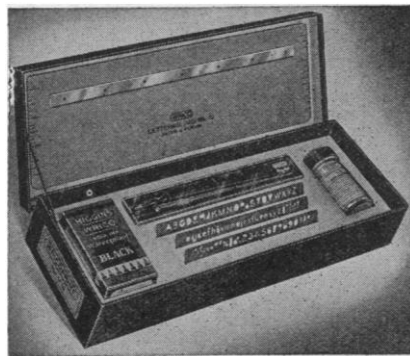
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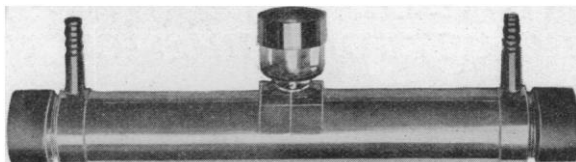
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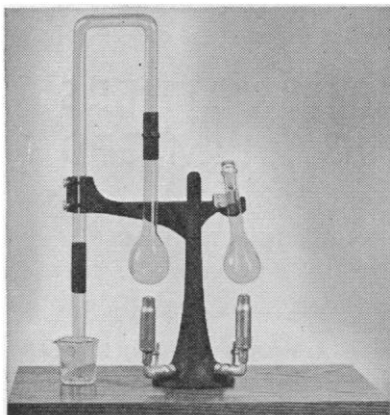
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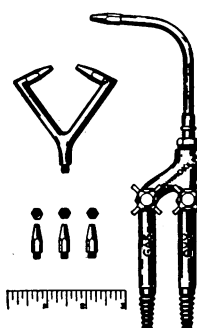
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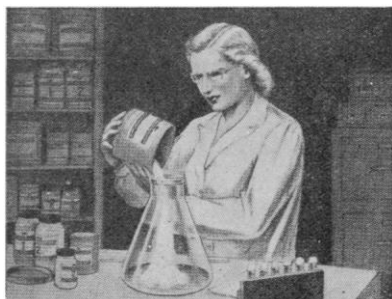
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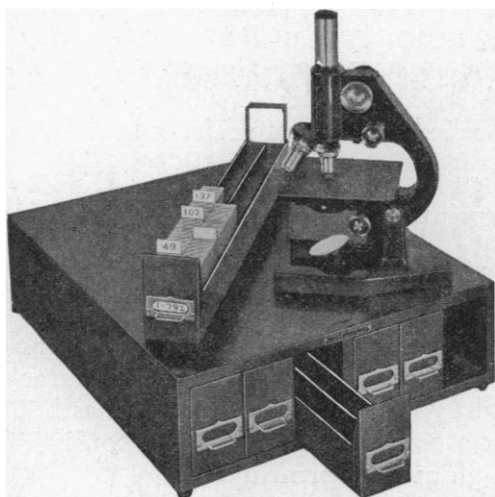
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# The Science Press Printing Company

**Purpose**—THE SCIENCE PRESS PRINTING COMPANY was founded for the purpose of printing the publications of The Science Press, the most important of these being the journals, *Science*, *The Scientific Monthly*, *The American Naturalist* and *School and Society*, as well as the Biographical Directories of "American Men of Science" and "Leaders in Education." In order to print efficiently these publications a shop of considerable capacity was required. Over the period of the last nineteen years additional scientific and educational journals have been added from time to time, until at present about forty serial publications, besides many books and dissertations, are being put out with appropriate scientific precision.

## Capacity

While the Press must use efforts to obtain work when the capacity of the shop requires it, its object has been to make it as great an advantage for the scientific man to have work done by it as it is for it to do the work. The Science Press Printing Company is a business corporation; but it is also a scientific institution. It is conducted on the same principles as the journals that it prints. Its object is the advancement of science—at the same time it must be self-supporting, and it is desirable to make profits that are used to increase its usefulness.

The company has had more work offered to it at times than it could accept. Now, however, in view of the increased efficiency made possible by its new one floor building it wants one or two scientific journals and several books and monographs in order that the full capacity of the shop may be used and all employees be given steady work.

## Qualification

We believe that our Company is known to all those active in the scientific and educational work produced in this country, and that they understand the high esteem in which we are held. Many thousands of pages of important scientific printing go

through our presses, and we print for those who are most distinguished in America in the production of scientific literature.

In this announcement we should like especially to call attention to our experience in printing books, monographs and theses. These and other occasional publications are a problem which is in some ways more difficult than the printing of journals, for each publication is different from every other. It is consequently desirable to have relations with a company that is especially experienced in this character of work and which can be relied on to quote fair and moderate rates.

The printing is done by skilled workmen, especially trained for the production of scientific and educational publications and books. Publications printed by this company have been admired for their distinctive appearance as well as for the accuracy essential to scientific work. This has been done at a cost that is as low as is consistent with high quality printing.

## Service

It has been the aim of the company since its establishment to act as a professional organization working in close collaboration with those responsible for the publications which have been entrusted to its care. All profits earned have been used to enlarge the

capacity of the shop, to increase its efficiency and reduce the cost of publication. In doing this the company has become one of the best known printing organizations specializing in scientific publications. It aims to send out material that is accurate, economical and attractive.

It has been the policy to give every special service possible, and we have inaugurated a plan whereby books printed in our plant are allowed the additional benefit of carrying our name as publisher. The company does not act as publisher in the usual sense, as the author is expected to pay the costs of printing. Distribution is handled by the company and the sale of the books is materially aided by the author's affiliation with an organization of known reputation.

## The War

Costs of printing have increased and are likely to become higher due to the war. We have, however, kept our prices as low as possible by the addition of time-saving equipment which also increases the efficiency of the work.

It is more a problem of obtaining the necessary supplies, especially paper and metal, rather than the cost of the materials. There

is room to hope that the importance of scientific publication will be recognized and that the Priorities Board will allow special consideration for this work as has been allowed in the case of materials for research.

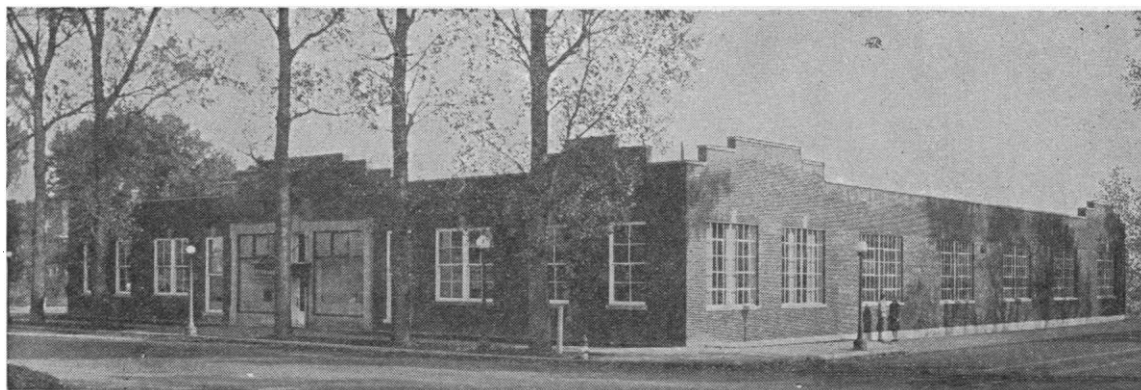
This company will do all it can to ease the situation and make possible a continuous sequence of all publications entrusted to its care.

## Conclusion

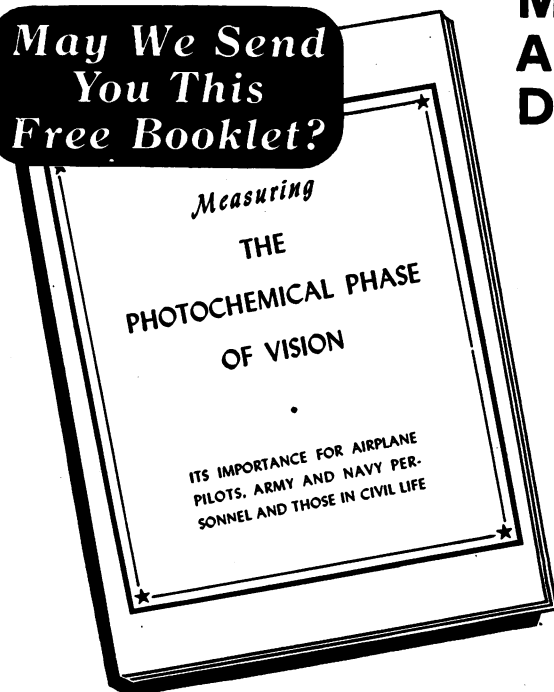
The average scientific man can not be familiar with the technique of printing, and for this reason competent and reliable advice is desirable and in many cases necessary before a satisfactory style can be adopted. This The Science Press Printing Company is well equipped to give, and we shall be glad if you will send manuscripts so that we may not only give an estimate of the cost but also make suggestions as to what would be the best style to use.

JAQUES CATTELL  
*Vice-President*

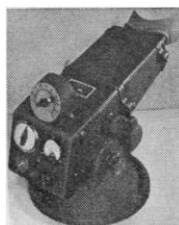
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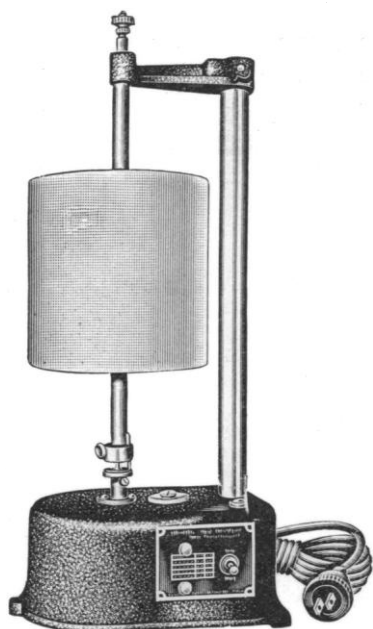
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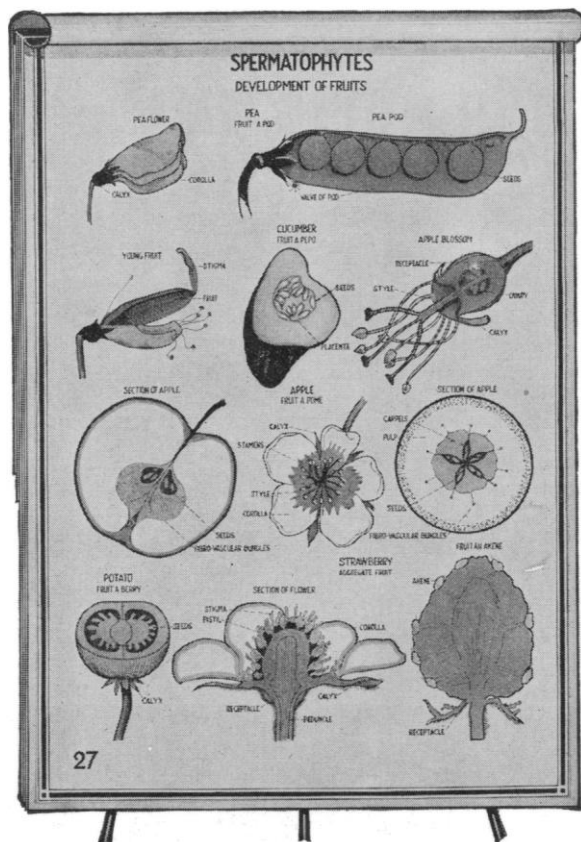
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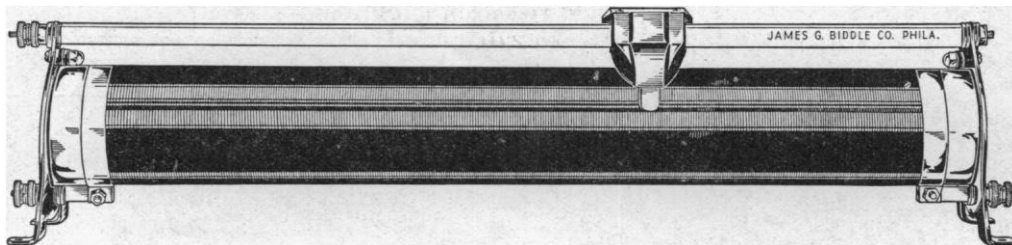
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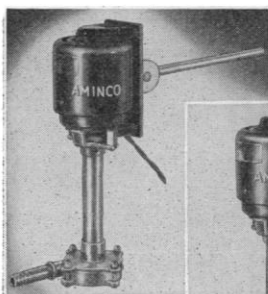
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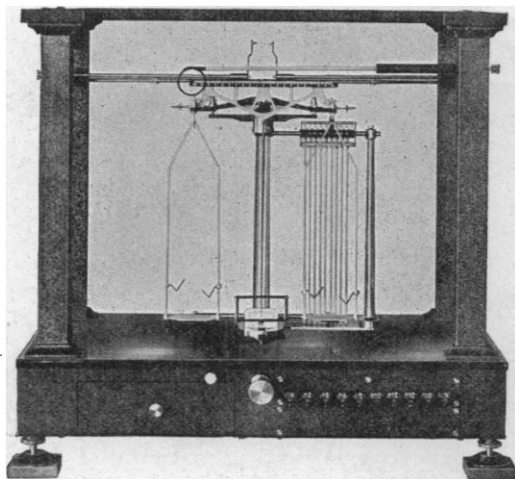
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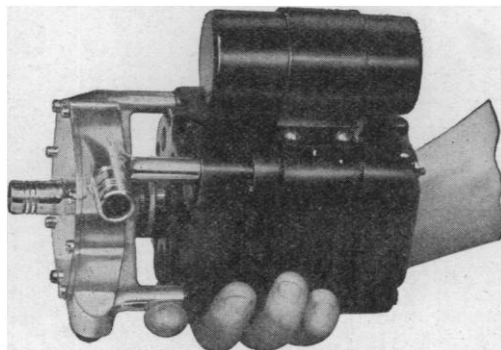
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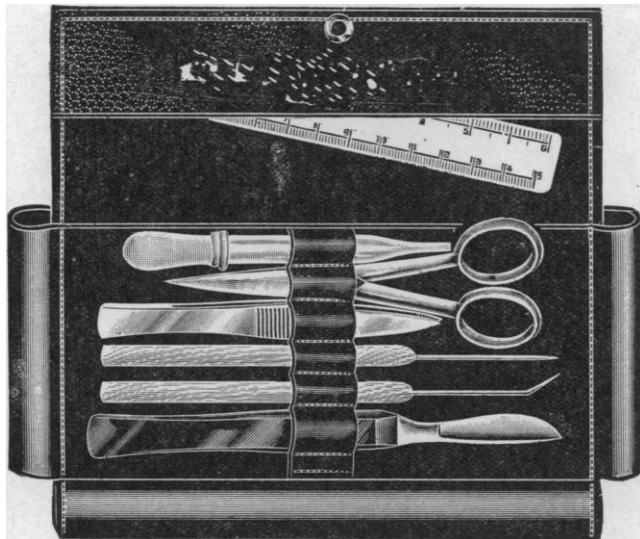
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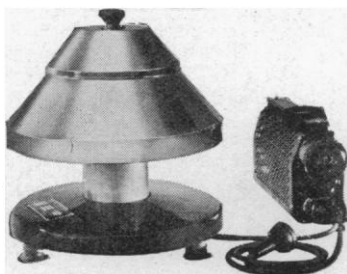
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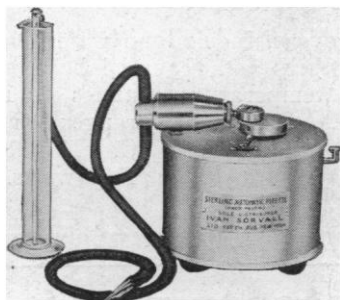
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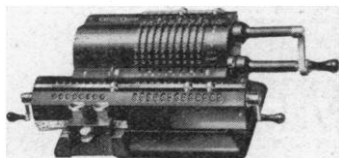
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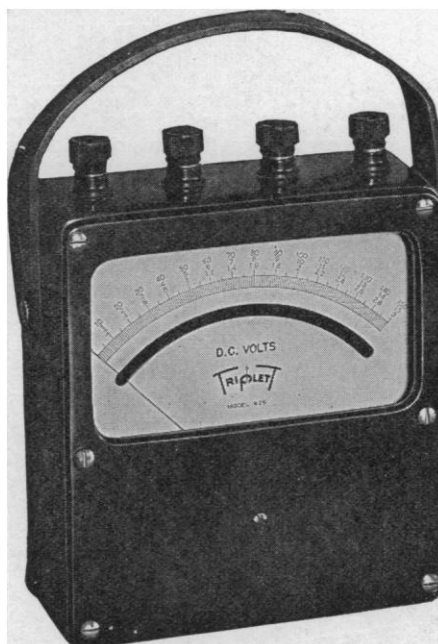
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... new molded case portables, may be obtained with extreme sensitivity for laboratory use—as well as those for general commercial and industrial testing purposes. Have mirror scale and knife-edge pointer to assure quick, accurate readings. Scale length is 4.58" —Accuracy within 1%. Attractive black molded case, 6" x 5 1/4" x 2 1/4". Attached leather strap handle.

**TRIPLET**

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Clear Readability

Another popular line of portables includes Models 725 (DC)—735 (AC).

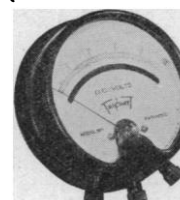


This popular style has a precision instrument with long 6" mirror scale. Oak case is 11" x 9" x 4".



**MODEL 325 . . 2.37" SCALES**  
Models 325 (DC)—335 (AC) for laboratory, shop bench and special purposes. Tilting feature permits adjustment to any angle for accurate reading.

To further meet the demand for portable instruments, Triplet has available handy instrument stands for 3" and 4" panel instruments; available with 2, 3, or 4 binding posts. Black wrinkle finish all metal case



—sloping panel — 4" x 4" x 3 1/4".



**MODEL 325 . . 3.50" SCALE**  
Has mirror scale and knife edge pointer for extreme accuracy in reading.

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**Triplet Electrical Instrument Co.**  
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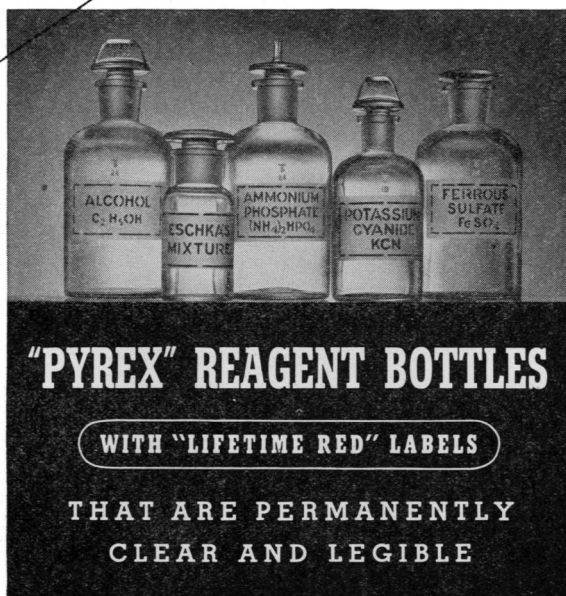


**F**abricated from balanced glass, Pyrex brand Reagent bottles are mechanically strong; and because of the high chemical stability of the glass from which they are

made, reagents remain unaffected. As a result, the long-run economy of Pyrex brand Reagent Bottles has been definitely established.

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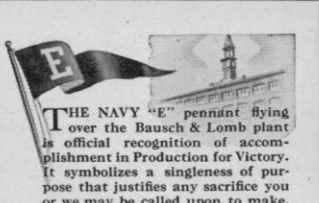
to do better...  
 merchant marine...  
 men to serve its guns (crews...  
 from eight to 24), it is unlikely that Navy...  
 personnel will take over the whole job.  
 More probably, a great many noncommis-  
 sioned reservists will be drafted as gun-  
 ners, will be commanded by chief petty  
 officers or cram-course officers from re-  
 serve schools.

Admiral Blandy's chief worry is about  
 fire-control and optical instruments. High  
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 companies which rate a production E (for  
 Excellence) is Bausch & Lomb. But, al-  
 though it is working at top speed, it can-  
 not supply all that the Ordnance Bureau  
 needs. Says Admiral Blandy: "Consider  
 that a single fire-control unit may weigh  
 up to a ton, and that tolerances in that  
 unit will scale down to .0005 of an inch,  
 about half the thickness of a cigaret paper,  
 and you'll see why we'd like a few more  
 Bausch & Lombs."

TIME, November 10, 1941

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 plishment in Production for Victory.  
 It symbolizes a singleness of pur-  
 pose that justifies any sacrifice you  
 or we may be called upon to make.

## Why Bausch & Lomb?

THE ability of Bausch & Lomb to produce the highly specialized optical instruments needed by the armed forces of the United States was not born of the present emergency. It has been acquired over eighty-nine years of unremitting research and unbroken experience.

Today the abilities and facilities and accumulated experience of Bausch & Lomb are being directed in their entirety to Production for Victory. Needed immediately are the instruments of which Admiral Blandy speaks—the rangefinders, binoculars, aerial height finders, and photographic lenses.

Vital as these are, there are others equally essential which Admiral Blandy did not mention. Among these are the spectrographic and metallographic equipments used in the analysis and quality con-

trol of cartridge cases and armor plate, the contour projectors and the tool-makers microscopes for making the fine measurements upon which mass production of tanks and airplanes depends. And to aid in maintaining military and civilian health and efficiency there are microscopes, diagnostic instruments and spectacles.

Never before has the ability of Bausch & Lomb been more important. Never before has Bausch & Lomb been in better position to serve or more mindful of its obligation.

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# SCIENCE

No. 2458

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SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary in the Smithsonian Institution Building, Washington, D. C.

In 1931-1932 the association held its annual meeting in New Orleans, a much larger city than Dallas and one nearer the great centers of population. At the New Orleans meeting a decade ago and in time of peace the registration was 1,447, less than the registra-



## SCIENCE EXHIBITION

Agricultural and Mechanical College of Texas: (1) Division of Swine Husbandry, (2) Division of Animal Husbandry, (3) Division of Agronomy, (4) Division of Plant Pathology and Physiology, (5) School of Engineering and Department of Physics; American Association of Petroleum Geologists; American Association of Scientific Workers; Bausch and Lomb Optical Co., Rochester, N. Y.; Biological Abstracts, University of Pennsylvania; The Blakiston Co., Philadelphia, Pa.; Central Scientific Co., Chicago, Ill.; The Dallas Petroleum Geologists; The Eastman Kodak Co., Rochester, N. Y.; The General Electric Co., Schenectady, N. Y.; The Gradwohl School of Laboratory Technique, St. Louis, Mo.; The Linguaphone Institute, N. Y.; Kansas Agricultural Experiment Station; The Macmillan Co., New York; McGraw-Hill Book Co., New York; Metric Association; National Geographic Society, Washington, D. C.; North Texas Biological Society; North Texas State Teachers College, Department of Chemistry; University of Oklahoma, Department of Botany; Prentice-Hall, Inc., New York; W. B. Saunders Co., Philadelphia, Pa.; Science Clubs of America; The Science Library; The University Presses, A Cooperative Exhibit; The South-Western Biological Supply Co., Dallas, Texas; Spencer Lens Co., Buffalo, N. Y.; Texas Power and Light Co., Dallas, Texas; John Wiley & Sons, Inc., New York; The University of Texas, Austin, Texas; The University of Texas, Department of Physiology; Tulane University of Louisiana, Department of Tropical Medicine; RCA Manufacturing Co.

In the report sent to the daily press by Science Service it is remarked that progress of science during 1941, despite threats of war and final sudden outburst of war itself, was strikingly set forth in the annual exhibition of the American Association for the Advancement of Science, shown in connection with the Dallas meeting. Many universities, research institutions and industrial firms cooperate annually in this display of the latest results of research.

Oil, indispensable alike in war and peace, is one of the chief products of the region where this year's meeting was held, so that a demonstration of modern scientific oil prospecting methods, by the American Association of Petroleum Geologists, fittingly occupied a prominent place in the exhibits. By models and charts it demonstrated how geologists feel their way through hundreds of feet of solid rock and shifting sand, to where the oil is.

How science also aids in providing more and better food and clothing, to meet the increased needs of war and the post-war world, was demonstrated in several booths set up by the Texas Agricultural and Mechanical College. Colchicine, the evolution-speeding chemical, has been applied to the cotton plant, to make it

produce bigger bolls and oilier seeds. Some of the husky new cotton plants were exhibited, growing in pots, contrasting with their punier untreated relatives that stand beside them. Science helps cotton below ground as well as above; another part of the exhibit demonstrated advances in combatting the fungus-caused root rot, one of the worst of cotton diseases.

Dissemination of scientific knowledge, as well as its increase through research, claimed its share of attention. A recently formed organization of professional scientists, the American Association of Scientific Workers, devoted its exhibit to a demonstration of its work in aiding defense, morale and national health; preserving science and freedom of thought in war time; educating the scientists themselves in problems that involve social welfare.

A booth was maintained by *Biological Abstracts*. Scanning and boiling down to a few sentences each the technical articles in more than 1,400 scientific journals, this publication saves the time of busy research workers.

Science is not exclusively an affair for professionals. That the tradition of the serious amateur, established in America by Franklin and Jefferson, Rittenhouse and Priestley, still carries on valiantly was evidenced by the exhibit of the Science Clubs of America. This is a national organization of hundreds of school and adult clubs composed of persons young and old who devote their spare time to scientific pursuits, ranging all the way from the study of the ways of frogs and field-mice to the making of telescopes and their use in discovering comets and watching variable stars. Science Service, which serves as liaison agency for these clubs, displayed some of its publications and the monthly specimen-service known as Things of Science.

## BOOKS RECEIVED

- Advances in Colloid Science*. ELMER O. KRAEMER, editor. Volume I. 161 Illustrations. Pp. xii + 432. Interscience.
- Four Treatises by Paracelsus*. HENRY E. SIGERIST, editor. Translated from the German by Sigerist and Others. Pp. xii + 256. Johns Hopkins Press. \$3.00.
- COLEMAN, LAURENCE VAIL. *College and University Museums*. Illustrated. Pp. viii + 73. American Association of Museums. \$1.25.
- LEYSON, BURR. *It Works Like This*. Illustrated. Pp. 224. E. P. Dutton. \$2.50.
- MARKHAM, EDWIN C. and SHERMAN SMITH. *General Chemistry Problems*. Pp. 240. Reynal and Hitchcock. \$1.25.
- MERRIMAN, GAYLORD M. *To Discover Mathematics*. Pp. xi + 435. Wiley. \$3.00.
- Papers on Mammalogy*. Published in honor of Wilfred Hudson Osgood. Volume 27, Field Museum of Natural History Zoological Series. 12 Plates. Pp. 395. Field Museum. \$3.00.
- ROEBUCK, JOHN R. and HENRY C. STAEBLE. *Photography, Its Science and Practice*. Illustrated. Pp. xv + 283. D. Appleton-Century. \$5.00.
- UNGER, W. BYERS and C. E. MORITZ. *A Laboratory Manual for Elementary Zoology*. Pp. iv + 102. Ginn. \$1.25.



# MICRORADIOGRAPHY

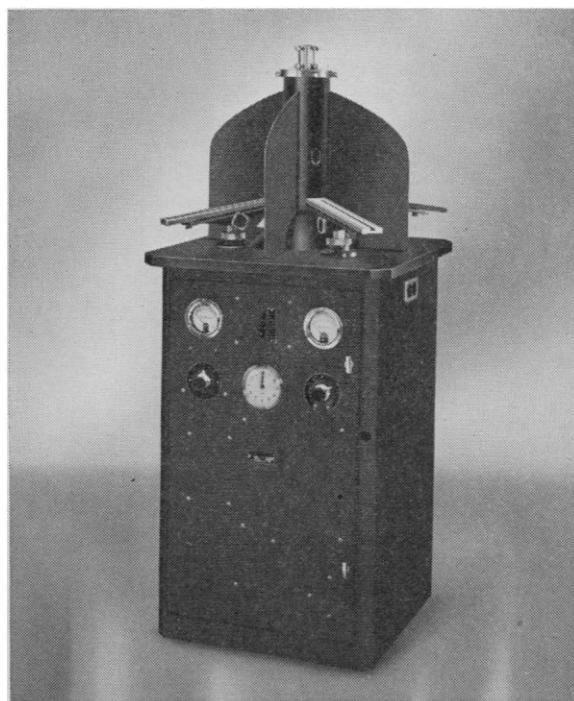
## New Method of Structure Investigation Now Available with the G-E XRD Unit



It has long been known that materials offer a different ratio of absorption to x-rays. The microradiograph reproduced here is an example of this fundamental principle, and it illustrates the different ratio of absorption between a protein mixed with a lipid.

Similar problems in organic analysis may be solved readily and quickly by microradiography using the G-E Model XRD X-Ray Diffraction Unit. This new method of investigating materials opens many new channels for determining homogeneous structure and the composition of organic and inorganic materials.

The G-E XRD Unit is a precision instrument which provides facilities for both microradiography and x-ray diffraction investigation. Its importance as a recognized, dependable "problem solver" is growing fast; it is a modern analytical tool that every progressive laboratory should investigate fully. To get full details about the G-E XRD Unit write for your copy of the big illustrated catalog. Address your request to Dept. R62.



**GENERAL ELECTRIC X-RAY CORPORATION**

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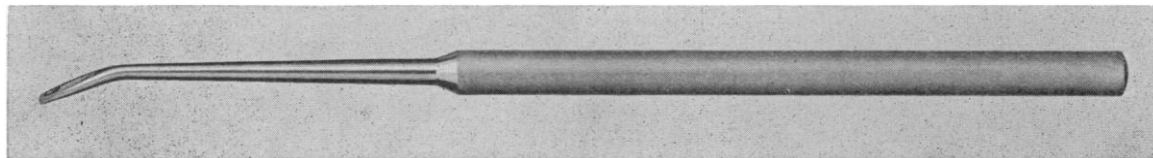
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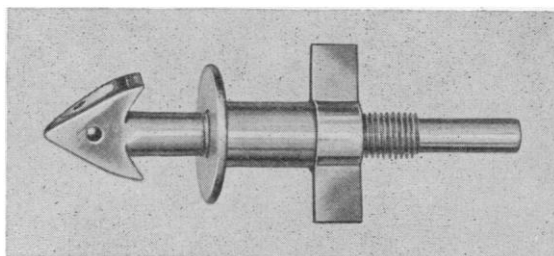
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