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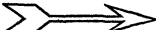
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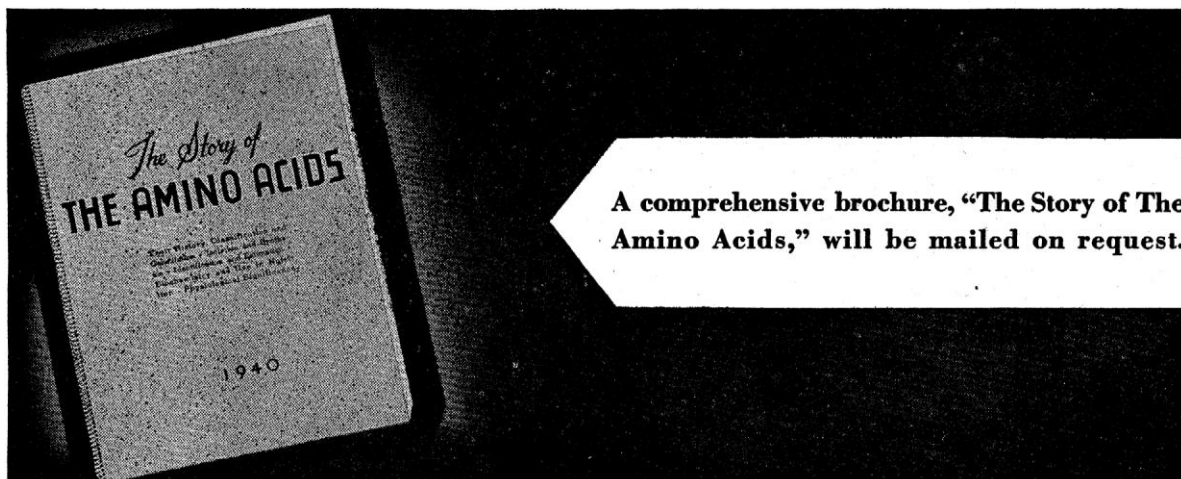
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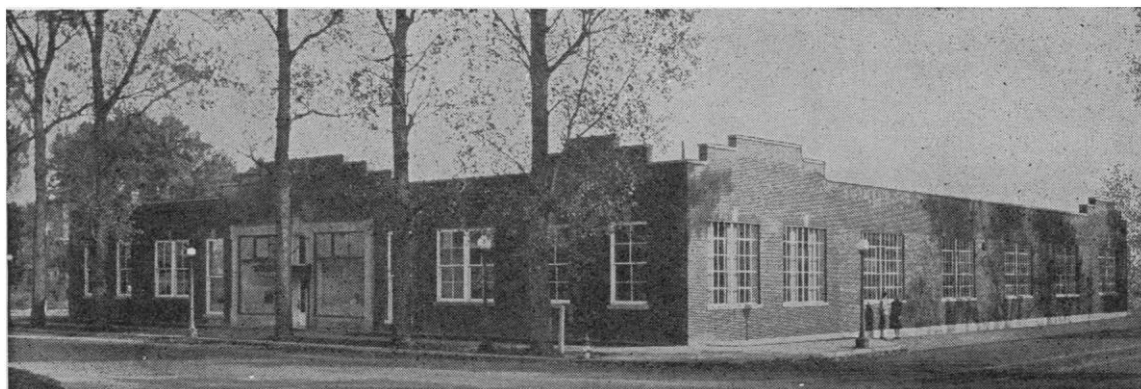
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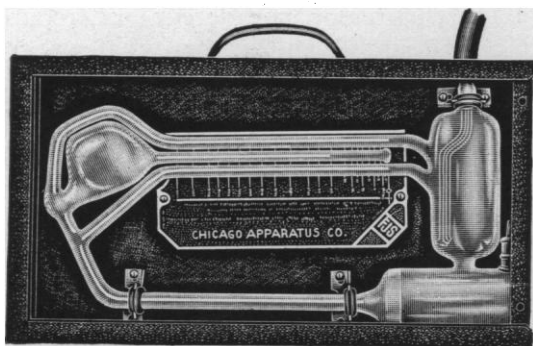
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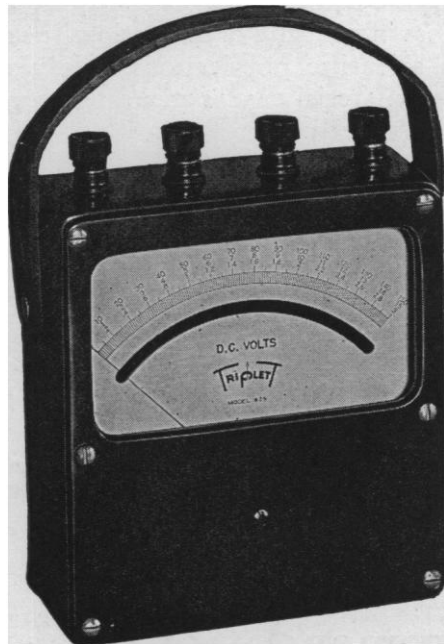
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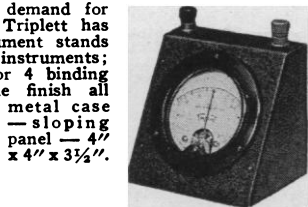
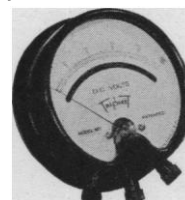


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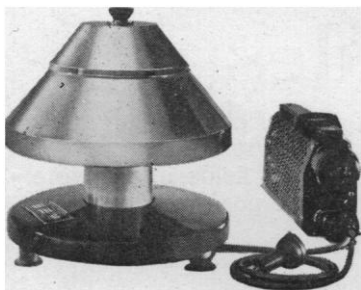


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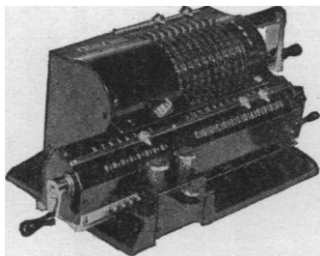
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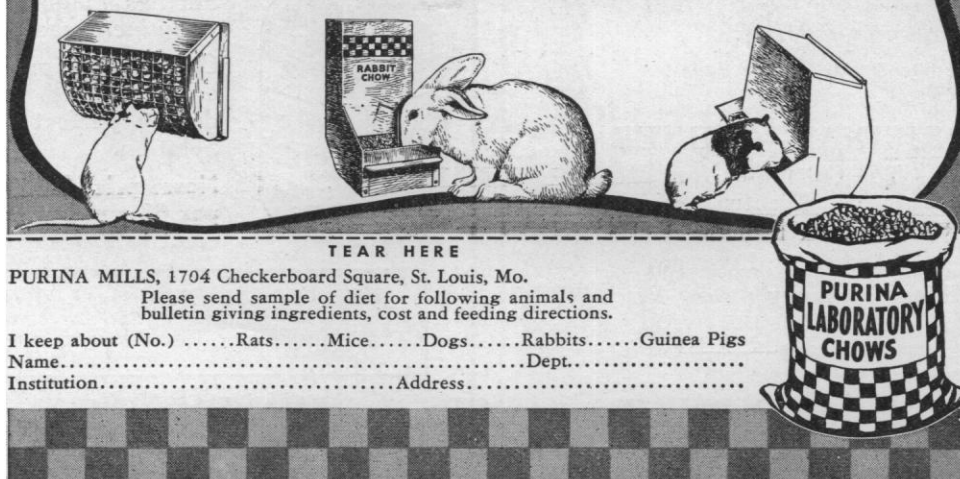
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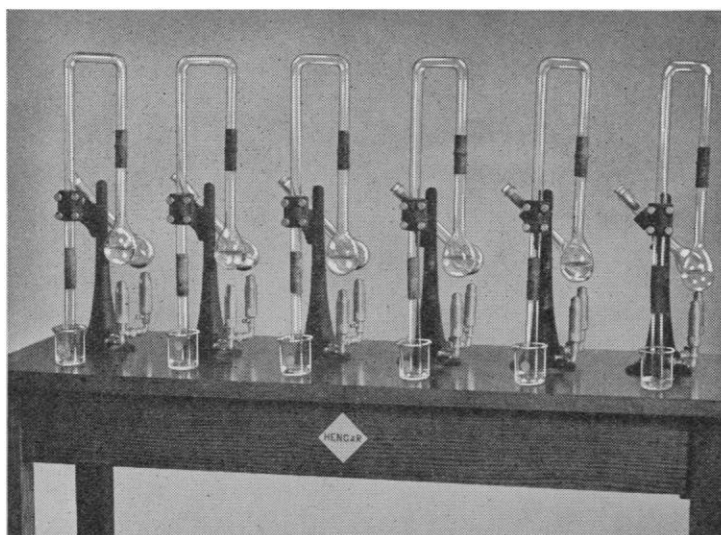


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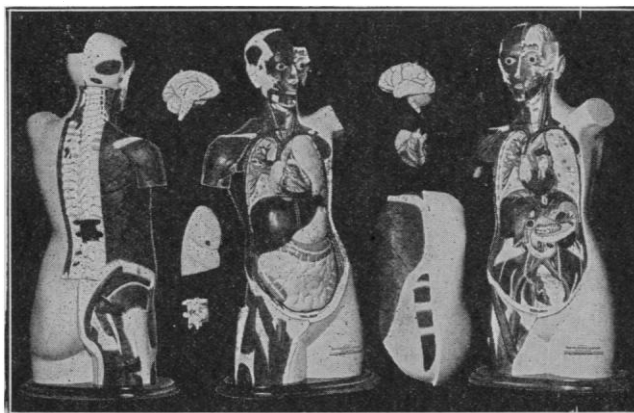
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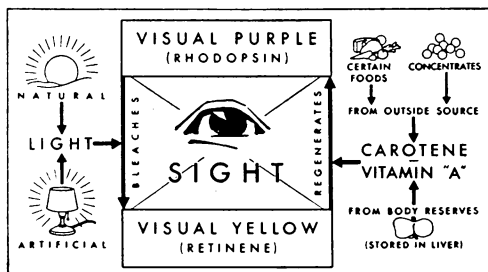


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* G. Wald, J. Gen. Physiol., 19: 351, 751: 1935; 20: 45: 1936

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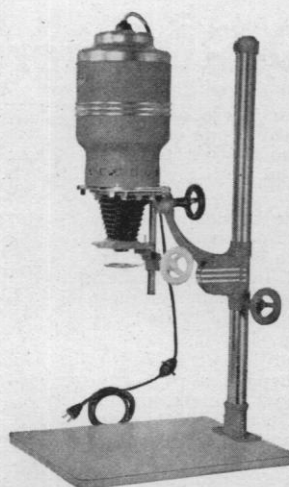
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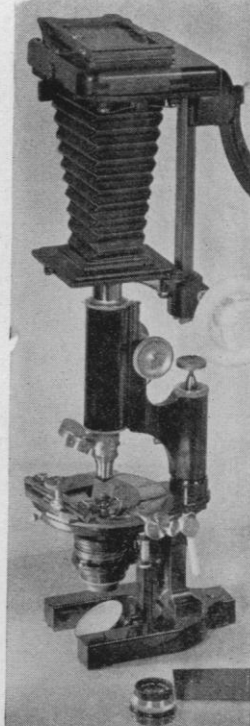
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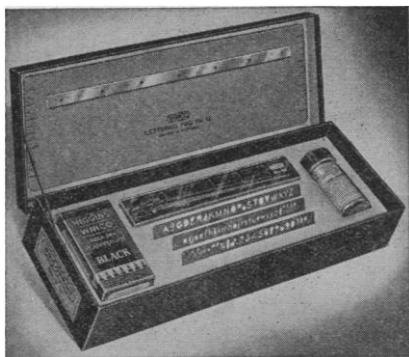
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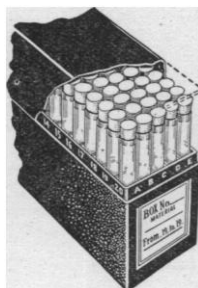
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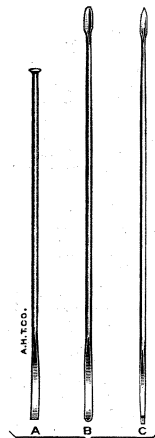


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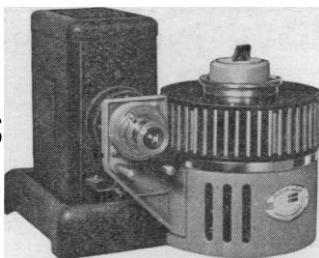
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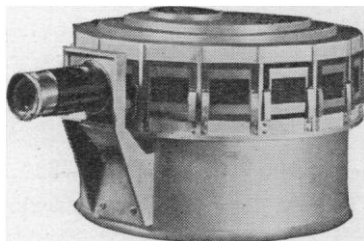
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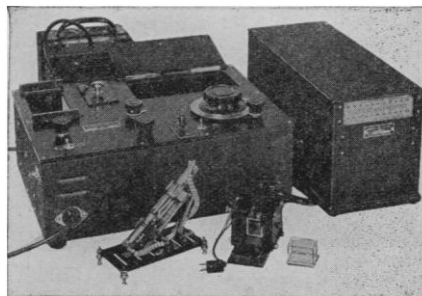
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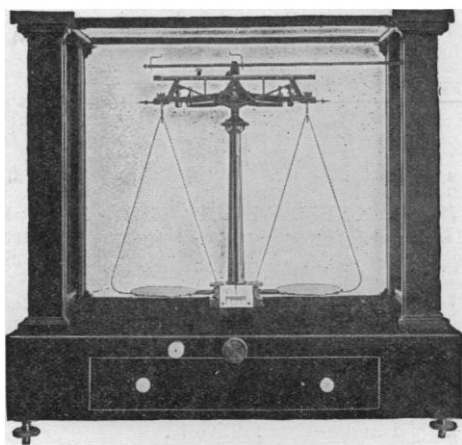
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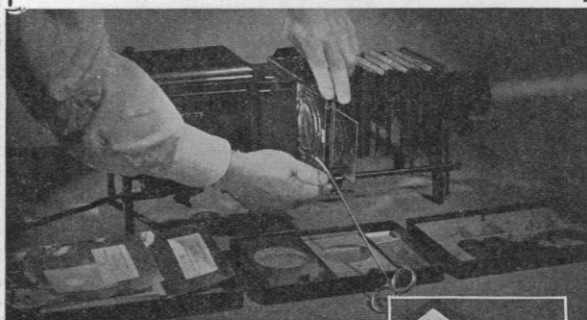
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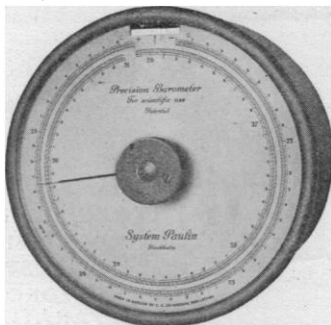
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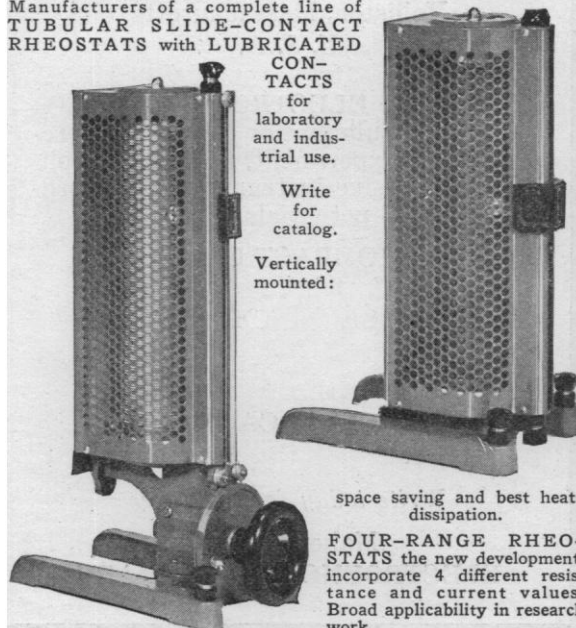
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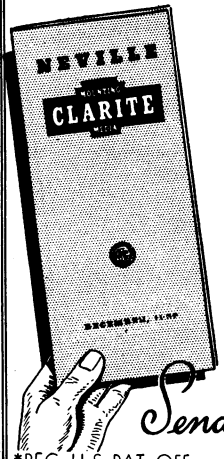


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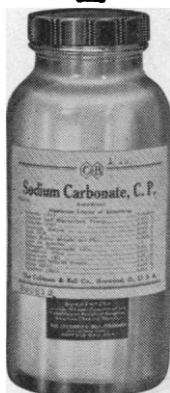
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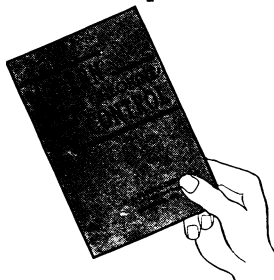
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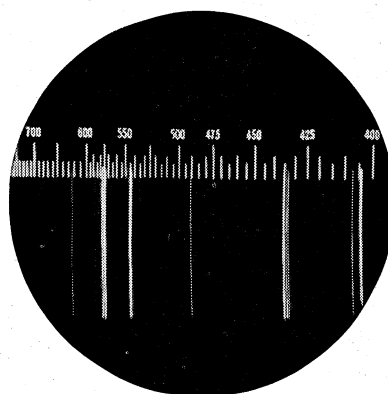
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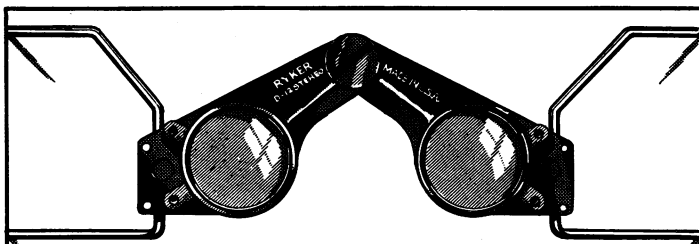
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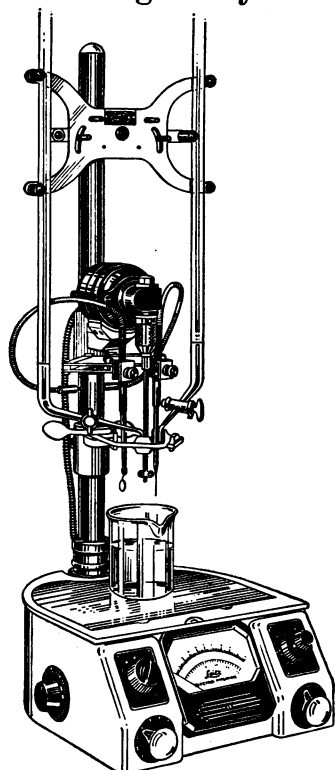
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Size 3, FS Centrifuge



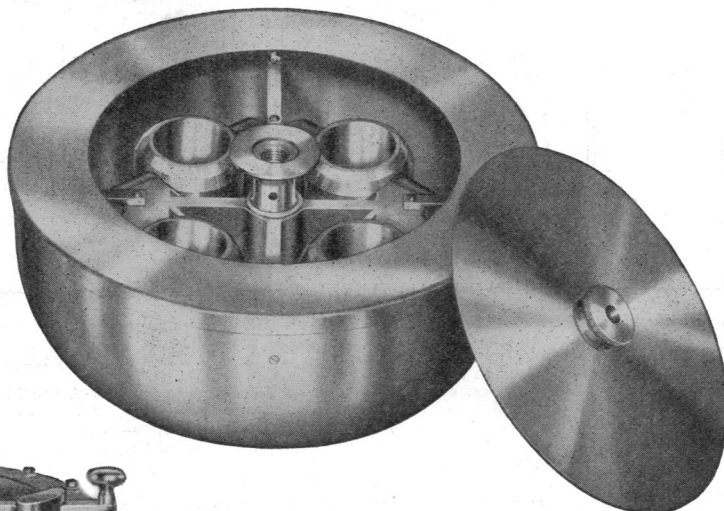
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DESIGNED FOR 1,000 ML. BOTTLES

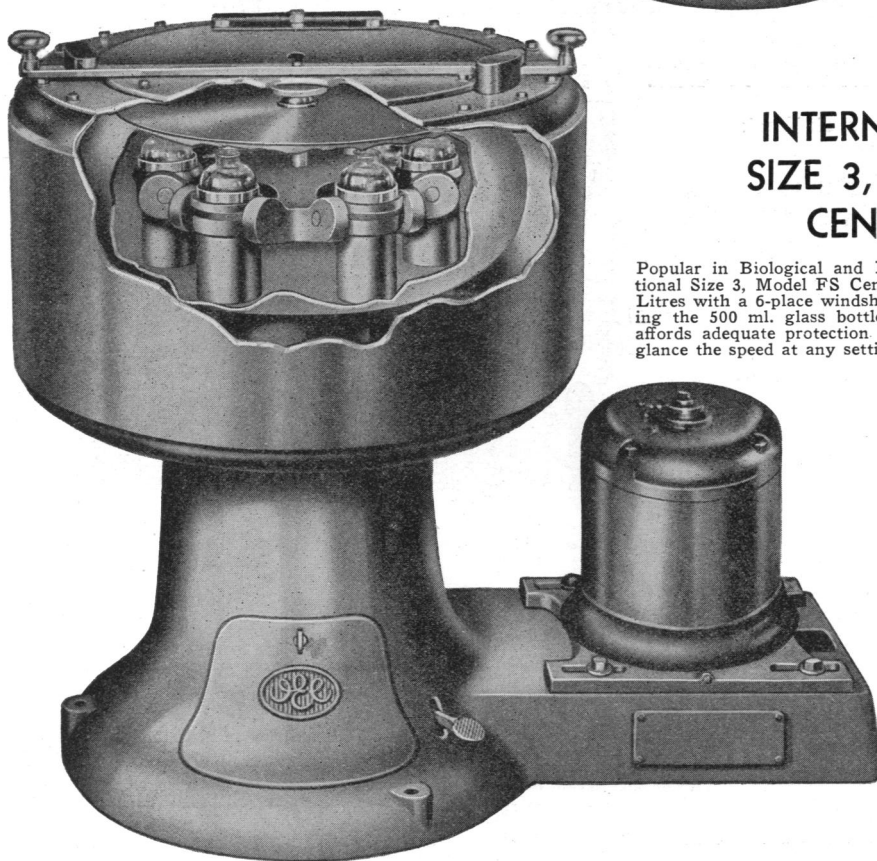
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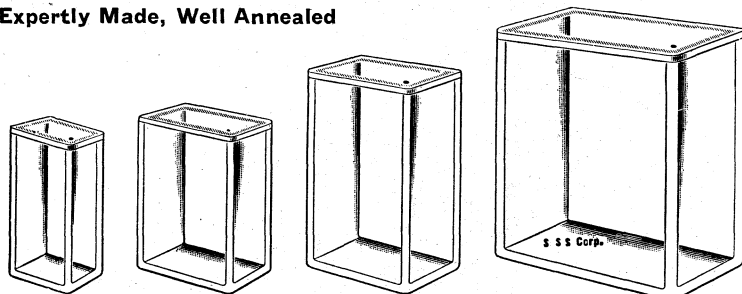
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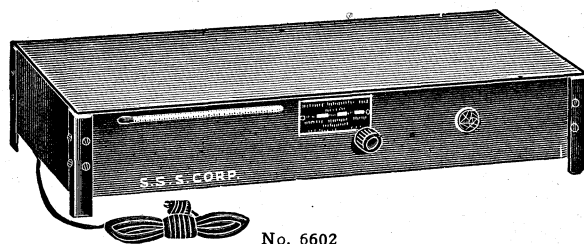
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Size Number	1	2	3	4	5
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" depth, cm.	3	3	5	5	9
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Size Number	6	7	8	9	
Outside height, cm.	16	20	20	20	
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" depth, cm.	8	4.5	8	10	
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Size Number	10	11	12	13	14
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" depth, cm.	13	5.5	10	12	9
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" depth, cm.	11	12	10	7.5	12
Each	\$8.00	6.50	4.00	5.25	18.00
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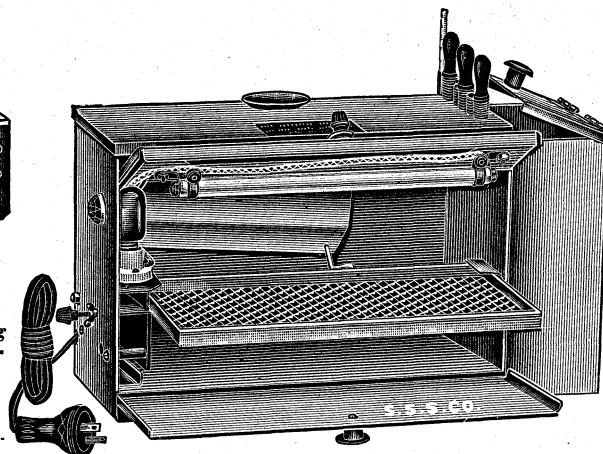
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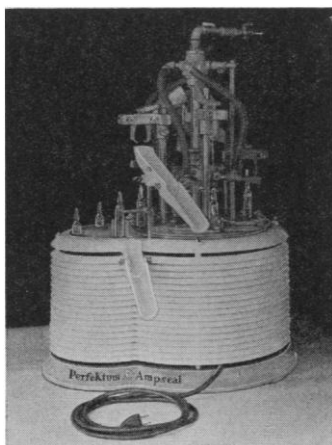
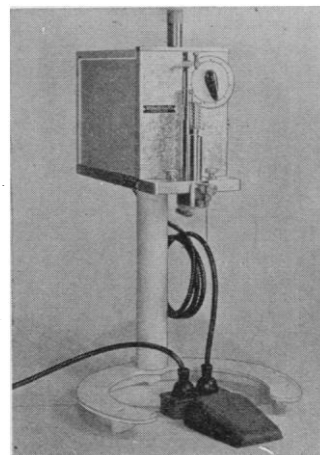
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9852
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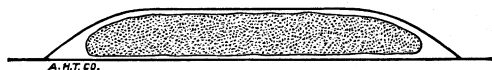


Fig. 1
Showing shape of specimen which can be mounted
under Levin Plexiglas Cover



Fig. 2
Showing shape of specimen which can be mounted
under the usual watch glass

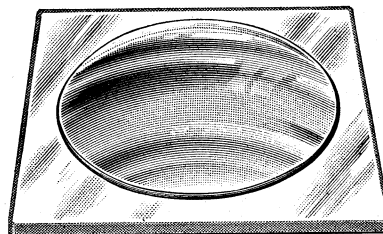


Fig. 3
Showing 9852 Levin Plexiglas Specimen
Cover in position (without specimen) on
9853 plate glass base plate

SPECIMEN COVER, LEVIN, of transparent Plexiglas, a methyl methacrylate resin, for display mounting of anatomical specimens in accordance with the technique of Larson and Levin.

Specially designed to provide room near edges for mounting thick specimens. Depth at center is 24 mm and at 30 mm from the edges is 20 mm, while the usual glass cover is approximately 14 mm and 7.5 mm at the same points. Wall is heavy and shape permits expansion and contraction of the mounting fluid. Edges are carefully ground and provide a sealing rim approximately 2 mm wide. Diameter 200 mm, capacity approximately 500 ml.

See Charles P. Larson and E. J. Levin, "Plastic Watch Glass Museum Mountings," *Archives of Pathology*, Vol. 30, No. 5 (Nov., 1940), p. 1093; "Museum Mountings at Minimum Cost," *Archives of Pathology*, Vol. 23 (April, 1937), p. 536; and "Inexpensive Watch Glass Museum Mountings," *Northwest Medicine*, Vol. 37, No. 8 (August, 1938), p. 254.

9852. Plexiglas Specimen Cover, Levin, as above described, 200 mm diameter, without base plate	1.45
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All Beckman instruments are built to one standard of quality—the *highest*. The best practice of precision instrument makers is followed throughout in construction and assembly operations . . . only the finest of precision-made parts, nearly all of them made in the Beckman factory under the most rigid supervision, are used . . . and at every step exacting inspections are made to insure long life and sustained accuracy under the most adverse operating conditions.

A point of particular significance is that *no Beckman pH Instrument has ever become obsolete*. The basic design of each type of instrument has been so soundly engineered that every Beckman instrument built can take advantage of the important Beckman research developments that have been perfected.

Because of such leadership, Beckman pH Instruments today are the recognized standard of the industry. Thousands are in use in laboratories and industrial plants throughout the world—far more

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DO YOU HAVE THESE BECKMAN pH BULLETINS?

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Bulletin No.	Subject
B10	Determination of Neutralization Number of Petroleum Products with the Beckman pH Meter.
12	Micro Glass Electrodes for the Beckman pH Meter, Model G.
13	Flow Type Electrode Assembly for the Beckman pH Meter, Model G.
15	Sealed Electrode Adapters for Beckman pH Meters (Models E and F).
16	Beckman Model R Automatic pH Indicator.
19	External electrodes for the Beckman pH meter, Model G.
20	High Temperature Electrodes for Continuous pH Measurement with Beckman pH Instruments.
21	Beckman Industrial Model M pH Meter.
31	Beckman Laboratory Model G pH Meter.
35	Discussion of pH Measurement Methods.
36	Sodium Ion Correction Sheet.
45	Beckman Quinhydrone Model Q pH Meter.
56	Beckman "Type E" High pH Glass Electrodes (for the range pH 9 to 14).
69	Bulletin on Rejuvenation of Glass Electrodes.

BECKMAN HIGH pH ELECTRODE EXTENDS FIELD OF GLASS ELECTRODE APPLICATIONS

More and more research workers are finding the recently-developed Beckman Type E High pH Glass Electrode a great aid in certain types of investigations where the pH of highly alkaline solutions must be measured in the presence of sodium ions. Ordinarily under these conditions the excessive sodium ion correction required for standard glass electrodes render them practically useless, but the High pH Electrode, an exclusive Beckman development, gives a high degree of accuracy under such conditions even at very high pH values.

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Made of a special type of glass developed by the Beckman research staff, it is the only glass electrode available for continuous operation at high temperature work and is rapidly assuming great importance in both laboratory and industrial applications.

Send for bulletin describing this Beckman-developed electrode.

For complete information on any Beckman equipment, or for helpful advice from our Research Department on problems involving pH, write

NATIONAL TECHNICAL LABORATORIES
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Jagabi "Lubri-tact"

LABORATORY RHEOSTATS

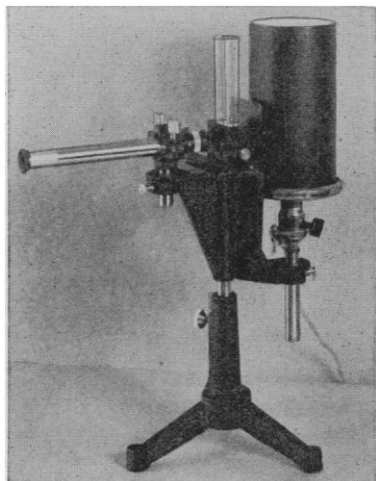
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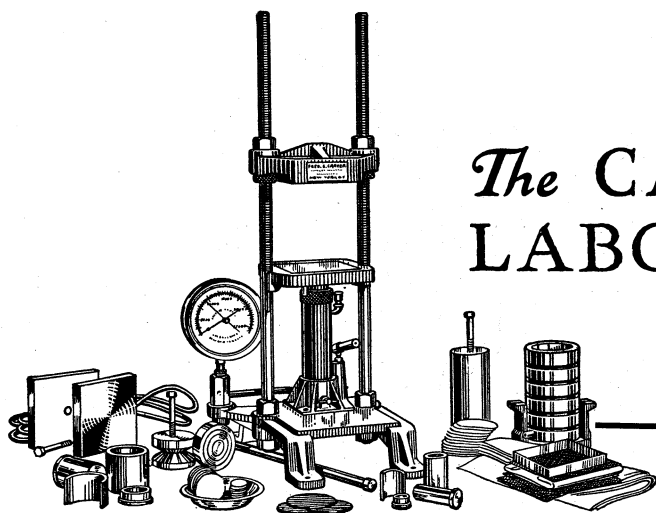
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for Filing Slides

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Illustrated at right is a unit for 3 x 1" micro slides. This type unit can be supplied with one or more drawers for 3 x 2" slides.

Paragon Tray-Drawer Cabinets, Sectional Units

- | | |
|--|---------|
| C101—Six Drawer Unit for 4500 slides (Illustrated) | \$25.00 |
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| C141—Four Drawer Unit for 3000 slides | 17.50 |
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| C121—Two Drawer Unit for 1500 slides | 10.00 |
| Dimensions: 18¾" x 5¾" x 4¾" | |



Paragon cabinets are especially designed and constructed according to rigid specifications—not merely adapted.

U. S. Patent No. 2,202,047



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- | | |
|--|---------|
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| Dimensions: 18¾" x 11" x 3⅞" | |
| C231—Three Drawer Unit for 2250 slides | 20.00 |
| Dimensions: 18¾" x 15¾" x 3⅞" | |

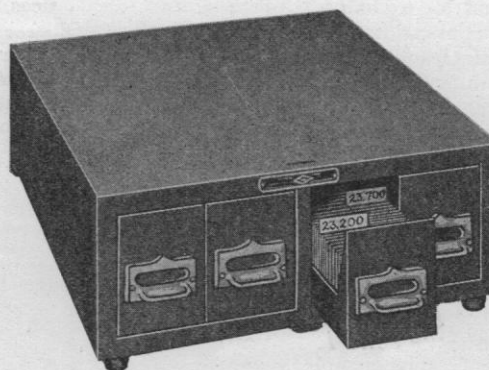
Locks on individual drawers priced at \$1.50 each.

PETROGRAPHIC SLIDES

Regular Paragon construction and design. Each drawer has two channels which are wide enough to accommodate slides up to 27 mm in width thus making it possible to accommodate varied petrographic slides.

- | | |
|---|---------|
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| C341—Four Drawer Unit for 3000 slides (Illustrated) | 17.50 |
| Dimensions: 18¾" x 11" x 3⅞" | |

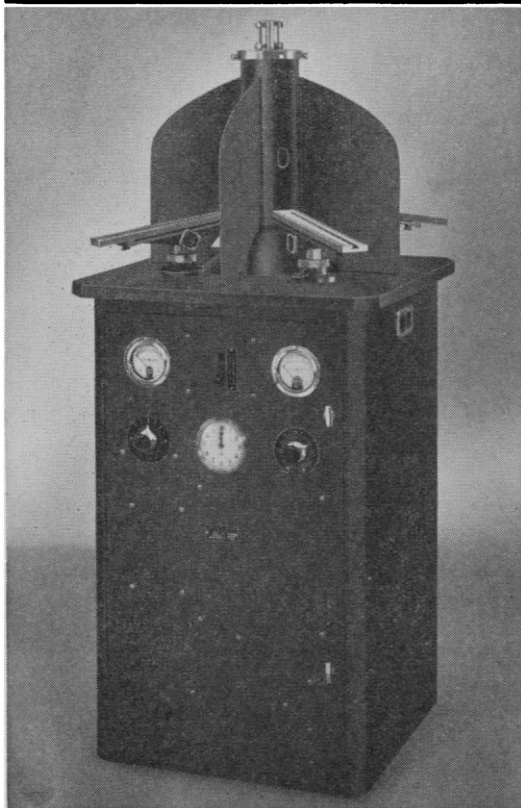
All above prices are for dry filing units and are f. o. b. New York, N. Y. Fresh and dry filing units are identical with exception of labels and adhesive supplied at slight additional cost. For additional information write for *Catalog N40*, and mention the unit in which you are interested.



Send inquiries and orders to your dealer or direct to us with his name and address
DEPT. F41

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The G-E XRD X-Ray Diffraction Unit

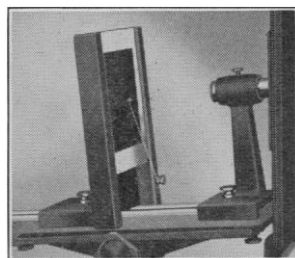


The General Electric XRD Unit has been designed and built to satisfy the increased industrial demand for a compact, versatile, and safe apparatus for application of x-ray diffraction methods. It embodies features which satisfy the most rigorous specifications for precision research and control analyses without sacrificing the safety, convenience, simplicity, compactness, flexibility, ease of operation, and adaptability that are needed for effective utilization of the x-ray method.

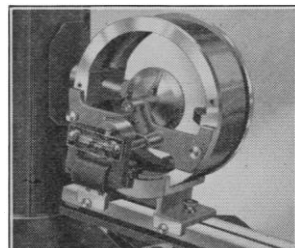
The tedious labor involved in mounting specimens, registering diffraction patterns, and operating the apparatus has largely been eliminated, thus allowing the operator to apply practically all of his time to planning his research routine, preparation of specimens, and interpretation of results.

The cameras and cassettes provided for use with the G-E XRD Unit are constructed to facilitate the use of the most common and dependable x-ray diffraction technics. Each instrument is built to do a particular type of work in the best and simplest manner. For complete information about the G-E XRD Unit, address Department R42.

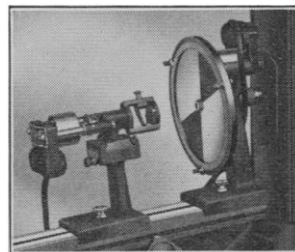
The XRD Pinhole Assembly and collimator tube support in use with flat cassette and cassette holder for 3 1/4" by 4" film.



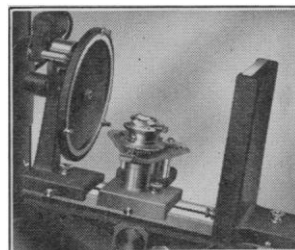
The XRD Powder Camera with oscillating specimen holder in position. Standard equipment also includes rotating specimen holder to be used with capillary tubes, and a septum which divides the camera so that a reference pattern may be placed upon one half of the film.



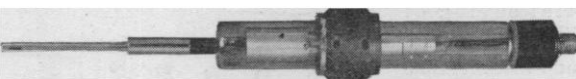
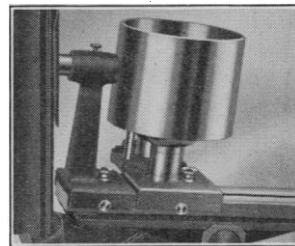
The XRD Back Reflection Camera and rotating specimen holder—a high-precision instrument for the exact evaluation and comparison of lattice parameters in the study of metals and alloys and other crystalline structures.



The XRD Universal Specimen Mount may be used with the Pinhole Assembly and flat cassette for Laue and rotation patterns, with the Back Reflection Camera for Saunter patterns and for back reflection Laue patterns, or with the Cylindrical Cassette and the Pinhole Assembly for oscillation and rotation patterns.



The Cylindrical Cassette which is furnished with the XRD Universal Specimen Mount for use with the Pinhole Assembly. The Cylindrical Cassette is mounted on the goniometer head which has fine screw adjustments on the arcs and for centering the specimen in arcs.



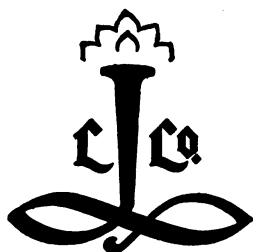
The G-E Model CA-4 Crystal Analysis Tube with four Lindemann glass windows and protection shield. Tube is available with complete x-ray protection shields which extend to cover both arms of the tube and includes x-ray proof stoppers for the ports of the tube which are not in use.



GENERAL ELECTRIC X-RAY CORPORATION

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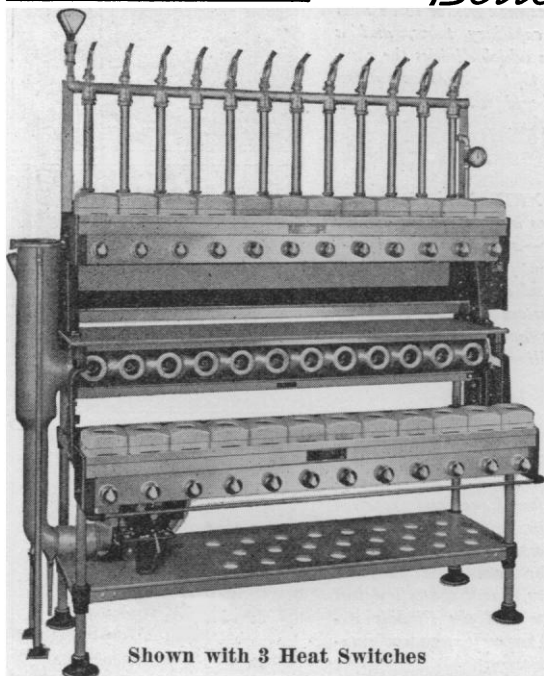
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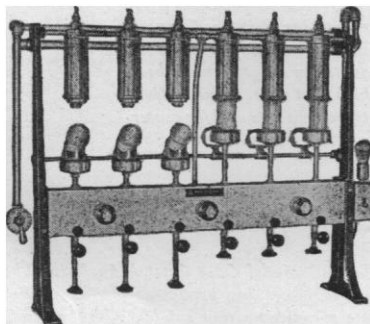
Many unique arrangements are available and we offer full cooperation on our different arrangements and capacities as they apply to your use and space allotted.

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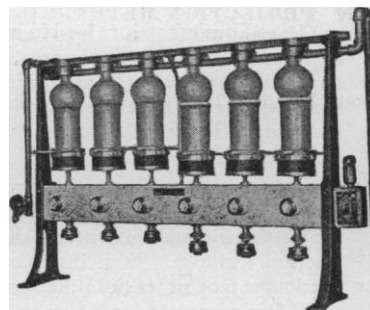
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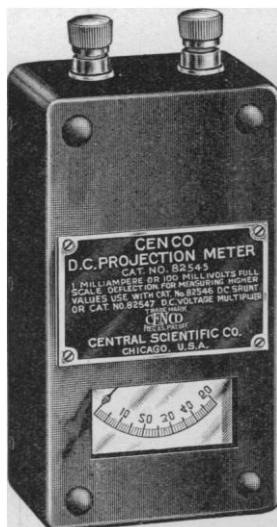
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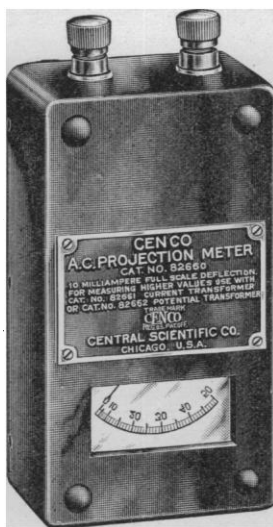
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No. 82660



No. 82661

82545 PROJECTION METER, D.C., Black Case, for projection of a large, easily-read image of a direct current meter scale and index pointer on a screen or the lecture room wall, thus permitting the class to follow significant changes in voltage and current occurring in the course of a demonstration.

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Each \$18.50

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CENTRAL SCIENTIFIC COMPANY

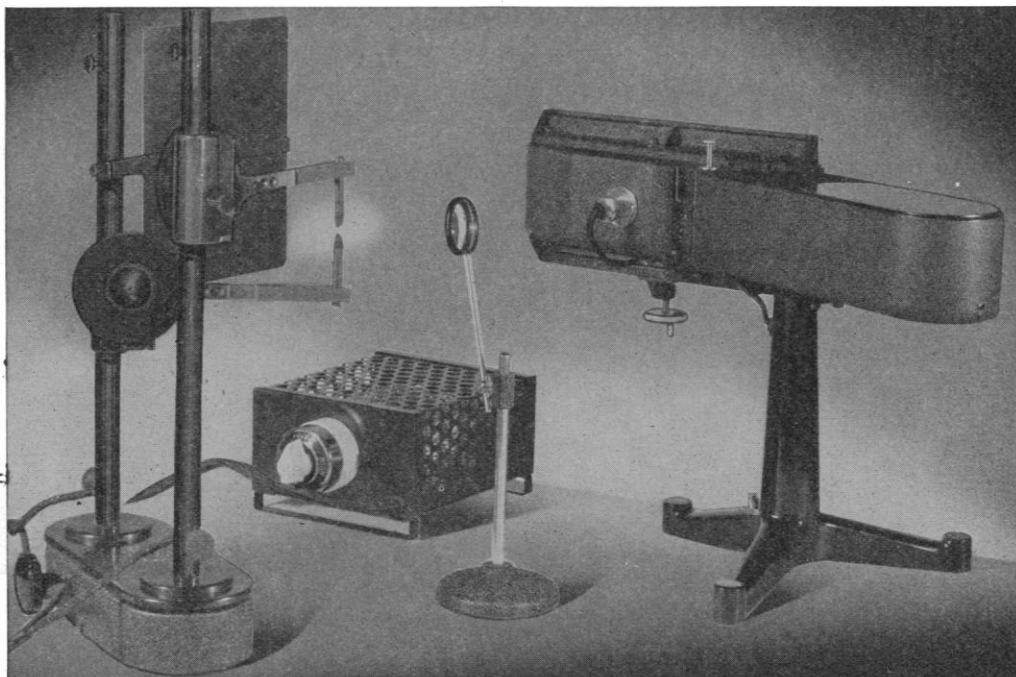
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SCIENCE

VOL. 93

FRIDAY, FEBRUARY 7, 1941

No. 2406

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THE SIXTH PHILADELPHIA MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE AND ASSOCIATED SOCIETIES

Edited by Dr. F. R. MOULTON

PERMANENT SECRETARY

NINETY-TWO years ago, on September 20, 1848, the American Association for the Advancement of Science was organized and held its first meeting in Philadelphia. Five times since that date the association has held meetings in the place of its birth—in 1884, 1904, 1914, 1926, and 1940. With the exception of the meeting held in 1904, each of these meetings has been larger than its predecessor. A total of 1,449 addresses and papers were on the programs of the meeting of 1926, and there were 2,164 on the programs of the recent meeting, held 14 years later. This increase of 50 per cent. in papers presented has been almost paralleled by the increase in the membership of the association, from 14,366 to 21,067.

REGISTRATION

The registration for the meeting at Philadelphia by states and foreign countries was as follows: Alabama,

21; Alaska, 1; Arizona, 2; Arkansas, 2; California, 56; Colorado, 7; Connecticut, 106; Delaware, 15; District of Columbia, 153; Florida, 22; Georgia, 20; Hawaii, 1; Illinois, 140; Indiana, 6; Iowa, 44; Kansas, 19; Kentucky, 16; Louisiana, 14; Maine, 31; Maryland, 155; Massachusetts, 226; Michigan, 75; Minnesota, 36; Mississippi, 4; Missouri, 41; Nebraska, 5; Nevada, 1; New Hampshire, 26; New Jersey, 201; New Mexico, 1; New York, 639; North Carolina, 67; North Dakota, 3; Ohio, 114; Oklahoma, 10; Oregon, 6; Pennsylvania, 664; Puerto Rico, 4; Rhode Island, 26; South Carolina, 20; Tennessee, 20; Texas, 35; Utah, 3; Vermont, 20; Virginia, 108; Washington, 2; West Virginia, 25; Wisconsin, 30; Wyoming, 1; foreign countries, 37 (Canada, 26; Canal Zone, 2; Chile, 1; Costa Rica, 1; England, 1; Guatemala, 1; New Zealand, 2; Philippine Islands, 2; Switzerland, 1), a total of 3,339. No previous meeting of the association



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Lacquer pigments,
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Radio Eyes

FOR MICROBE HUNTERS



Anthony van Leeuwenhoek of Amsterdam was the first to peer into the universe of the infinitesimal. With his crude microscope, he discovered in 1683 the "small beasties" which Pasteur and Koch—and Theobald Smith later branded the most dangerous enemies of man—the germs of disease.

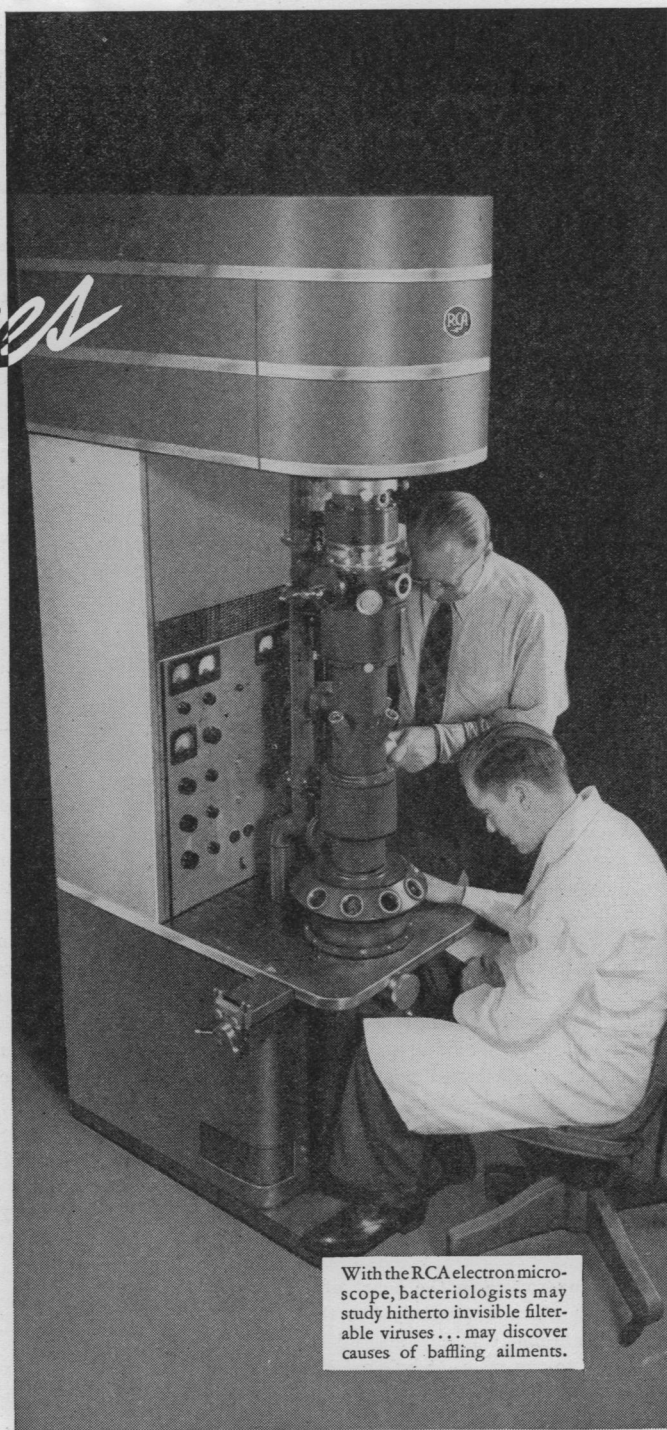
BUT there are micro-organisms too small for optical microscopes to detect. These instruments operate by visible light, which cannot resolve objects much smaller than the wavelength of the light. Bacteriologists have been able to see only the larger microbes. They have been able only to hope that somewhere, somehow, an instrument would be found that would magnify not 1,500, but 20,000... 50,000... 100,000 diameters!

Scientists in RCA Laboratories have engineered such a microscope. They studied the electrons active in radio and television, whose length was but a tiny fraction of that of a light wave. Research proved these electrons could be used as "seeing" rays. Focused by powerful magnets upon photographic film, they would reveal what had hitherto been invisible.

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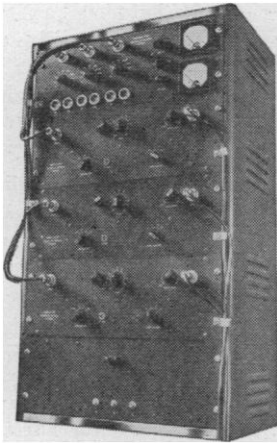
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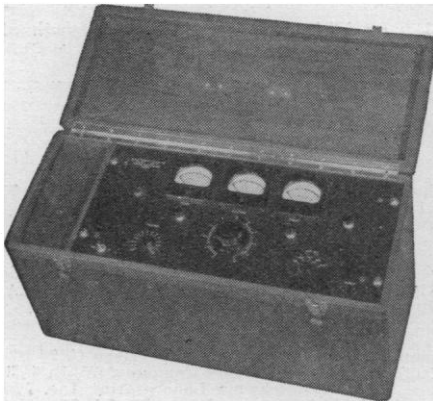
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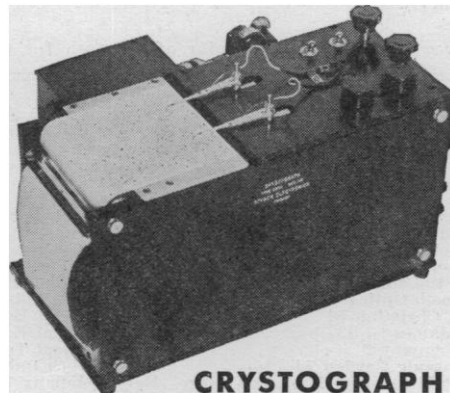
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