PARTICULARLY useful in Mineralogy, Metallurgy and Petrography because the oblique illumination obtained by its use enables one to:

1. Observe the normal color of minerals.
2. Examine inclusions and cavities in polished sections.
3. Distinguish gangue mineral from ore mineral.
4. Investigate the internal structure of transparent specimens and examine minerals below the surface.
5. Recognize differences in hardness in a section by emphasized relief which helps to identify the minerals.
6. Observe the action of reagents.

The SILVERMAN Illuminator can be used with magnifications as high as 400 diameters in Photomicrography. By its use the light is evenly distributed over the whole field so that few negatives of uneven density are produced. This is possible only with the greatest care when using vertical illumination.

The SILVERMAN Illuminator finds application in every field of Microscopy such as:

- Metallurgy
- Metallography
- Mineralogy
- Plant Pathology
- Steel and Iron
- Brasses and Bronzes
- Textiles
- Paper
- Rubber
- Vitreous Enamels
- Refractories
- Glass
- Abrasives
- Etc., etc.

Write for our Descriptive Circular "S"

LUDWIG HOMMEL & COMPANY
929 Penn Ave.
PITTSBURGH, PA.
LEITZ

College Microscopes

Models "L" and "LL"

In Stock for Immediate Delivery

In precision of optical and mechanical workmanship the Microscopes "L" and "LL" are equal to the elaborate Leitz Research Microscopes, having however been simplified in their adjustments so as to give the greatest practical usefulness in class room and student laboratory work.

The Teaching Profession, through an ever increasing knowledge of the intimate technical details in the construction of scientific instruments, have been made to realize the advantages derived when selecting class room microscopes of superior quality and the attending feature of continuous satisfaction as well as economy through saving of repair expenses.

Leitz Microscopes meet these requirements in an uncontested manner, their prices not being higher than other instruments of similar construction.

If the purchase of class room microscopes is anticipated, ask for our literature and estimate; we satisfy the most discriminating requirements and through the use of Leitz College Microscopes "L" and "LL," institutions will realize the importance of superior quality.

Ask for Pamphlet No. (0) 1001

The Leitz Works are recognized as the creators of many important microscopical instruments.

AGENTS
Pacific Coast States: SPINDLER & SAUPPE, 86 Third St., San Francisco, Cal.
Canada: J. F. HARTZ CO., Ltd., Toronto, Canada.
Philippine Islands: BOTICA DE SANTA CRUZ, Manila, P. I.
Cuba: TECIDOR CO., Ltd., Habana, Cuba.

Some of the new constructions offered by the Leitz Works caused a revolution in microscope models and optics.
Busch
Pocket Microscope

For any degree of Magnification from 30X to 200X

The entire stand of this new microscope is a one-piece hollow casting of aluminum alloy which makes the instrument rigid and at the same time light in weight. Net weight 11 oz.

The initial magnification is increased by elongating the draw tube and the magnifications thus obtained are read off from the graduations on the tube.

The optical system consists of an orthoscopic eye-piece and a standard achromatic objective with standard thread so that other objectives may be used if desired.

May be used for micro-projection.

Price in velvet lined pouch ............. $19.00
Price in velvet lined case ............... $20.00
Price with case and pouch .............. $21.00

Write for complete description

Palo Company
Apparatus for Industrial and Laboratory Use
153 West 23rd Street New York, N. Y.

BECBRO
LABORATORY RHEOSTATS

"BECBRO" Rheostats carried in stock include numerous different ratings.

Included in the stock sizes are tubular types of lengths 20"; 16"; 8"; the resistance element being Wire or Ribbon.

Each tube has a slider adjustment which varies the resistance by very small steps from Zero to total value of the unit.

The approximate total resistance of these stock rheostats vary from 0.5 ohm to 30,000 ohms per unit, and have corresponding current capacities of 25 amperes down to 0.1 amperes.

Rheostats of more or less special construction include the Single Tube equipped with two rods and two sliders; Single and Double Tube equipped with Screw Adjustment (see cut); Double and Triple Tubes mounted as a Unit; Non-Inductive Wound Tubular and Stone Types.

"BECBRO" Carbon Compression Rheostats with corresponding Normal Ratings of 250; 1000; 1500; 3000 Watts.

Write for Catalog 8-20

Beck Bros.
3640-42 North Second Street
Philadelphia, Penna.