

five other gases are furnished to the colleges and industrial research laboratories. Reducing valves, gauges, needle valves, flow gauges and accessories will be shown.

EXHIBIT OF METEOROLOGICAL APPARATUS AND ACCESSORIES

Booths Nos. 17 to 23

In view of the growing importance of dynamic meteorology, due largely to rapid advances in aeronautics, it has appeared desirable to give preference to apparatus recently developed for use in research and to instruments of historic value. Equipment more or less standardized for use at climatological stations is displayed in the exhibits of manufacturers who also have contributed generously to the scientific exhibition.

Committee on Meteorological Exhibits:

S. P. FERGUSON, *Chairman*
J. B. ANDERSON
L. F. CURTISS
LUCIEN L. FRIEZ
P. R. JAMESON
B. C. KADEL
A. H. THIESSEN.

Aerological Apparatus

Blue Hill Meteorological Observatory. The main theme of this exhibit will be the new Harvard radiometeorograph and historic aerological instruments developed by the observatory, including the first thermograph lifted by a kite in 1894 and the Fergusson four-element kite-meteorograph used last on Mount Washington in 1934. There will also be a sensitive anemometer for measuring rapid changes of velocity.

The radiometeorographs are of two types, one of which, pressure-driven, has two elements, and the other, clock-driven, has three elements. In the latter, four silver needles, three of which are operated by the elements measuring pressure, temperature and humidity, contact a fine helix of platinum thread and bakelite caused to revolve by a temperature-compensated clock so that four ultra-high-frequency radio-signals are emitted every 30 seconds. The meteorological elements are covered with a sun-shield, the clock, radio-transmitter and batteries are secured in a balsawood box and the whole is covered with insulating material. The total weight is but 600 grams. The meteorological portion and general assembly were designed by Dr. K. O. Lange, the radio by A. E. Bent and the clock by the Chelsea Clock Company. The unit cost is about \$32.00 in small quantities. The meteorological elements are standardized in a chamber designed by Dr. Lange for the simultaneous reduction of temperature and pressure, respectively, to -78° C. and nearly a vacuum. During an ascension the instrument is attached by its antenna, string and rubber cord to one or two light-weight latex balloons developed by the Dewey and Almy Chemical Company. The signals received at the ground are amplified and recorded on a moving plate. Some 60 ascents, two of which attained a height of about 32,000 meters (20 miles), have been made to bring the radiometeorograph to its present state of development.

The instrument will be shown in operation, recording the height, temperature and humidity transmitted from a balloon rising at a distance from the booths.

The National Bureau of Standards, and the United States Weather Bureau. This exhibit will include models showing the early stages of development of radiometeorographs and other instruments developed at the two institutions, specimens of the Duckert, Moltchanoff and Vaisala instruments from European countries and samples of light-weight "B" batteries developed by various manufacturers for this service. Other aerological apparatus from the Weather Bureau will include: One Marvin kite-meteorograph, one Fergusson balloon-meteorograph, one Friez aerometeorograph and one anemometer of new design having 4 beaded cups and newly designed bearings and contacts.

The principal feature of the exhibit will be the radiometeorograph in operation. A balloon unit will be set up at some distance from the Auditorium and signals received from it will be received at the exhibit where an attendant will explain the equipment.

J. Patterson, Controller of the Meteorological Service of Canada, contributes a visual-signaling meteorograph for use with balloons-sondes at heights up to about 4,500 meters. Lights actuated by a battery flash for each change of 2° F., of temperature and every 30 mb fall of pressure; values of these elements are determined from observations of the rising balloon and instrument by means of a theodolite. This meteorograph is very light, can be lifted by a small rubber balloon and costs only \$6 or \$7.

The Julien P. Friez and Sons Company, Inc. In addition to the large exhibit of meteorological and climatological apparatus by this company in its booth the special display of instruments for research will include a low-torque 3-cup anemometer designed specially for evaporation; new wind-direction and velocity equipment as supplied for naval vessels; a direct-reading hand-anemometer of a 3-cup type; a new magnetic drag type direct reading velocity-indicator; a new aerograph; possibly an anemograph standardized for velocities up to 200 miles an hour—and other instruments believed to be of interest to the meeting.

R. Fuess, Inc., New York, (representing R. Fuess, Berlin, Germany). Balloon-theodolite, for observing the altitude and azimuth of balloons; the Moltchanoff calculator accompanying the instrument permits the calculation of the observations including vector additions during an ascension. The Wigand-Koppe-Fuess Meteorograph for Aircraft records simultaneously air-temperature, atmospheric pressure, humidity of the air and wind-velocity. It is stream-lined and of durable construction so that it may be carried on airplanes. The Wigand Visibility Meter provides an objective determination of visibility which, up to the present, has been judged by eye-estimate, a method involving a large degree of personal error.

Massachusetts Institute of Technology, Department of Meteorology.—Balloon-meteorograph of the Jaumotte

Selected McGraw-Hill Books

to be published in 1937

AGRONOMY

Conservation of the Soil

By A. F. GUSTAFSON, Cornell University. *McGraw-Hill Publications in the Agricultural and Botanical Sciences*

ANTHROPOLOGY

Cooperation and Competition among Primitive Peoples

Edited by MARGARET MEAD, American Museum of Natural History. *McGraw-Hill Publications in Sociology*

Primitive Behavior

By WILLIAM I. THOMAS. *McGraw-Hill Publications in Sociology*

BOTANY

Methods in Plant Physiology

By W. E. LOOMIS, Iowa State College, and C. A. SHULL, University of Chicago. *McGraw-Hill Publications in the Agricultural and Botanical Sciences*

CHEMISTRY

Quantitative Pharmaceutical Chemistry. *New second edition*

By GLENN L. JENKINS, University of Minnesota, and ANDREW G. DUMEZ, University of Maryland. *McGraw-Hill Publications in Pharmacy*

Chemicals in War

By LT. COLONEL A. M. PRENTISS, U. S. War Department

Food Technology

By S. C. PRESCOTT and B. E. PROCTOR, Massachusetts Institute of Technology

Quantitative Analysis. A Theoretical Approach

By WILLIAM RIEMAN, Rutgers University, and JACOB D. NEUSS. *International Chemical Series*

Absorption and Extraction

By THOMAS K. SHERWOOD, Massachusetts Institute of Technology. *Chemical Engineering Series*

GEOLOGY

Gold Deposits of the World

By W. H. EMMONS, University of Minnesota

PHYSICS

Introduction to Ferromagnetism

By FRANCIS BITTER, Massachusetts Institute of Technology. *International Series in Physics*

Electrical Measurements

By HARVEY L. CURTIS, National Bureau of Standards. *International Series in Physics*

Measurement of Radiant Energy

Edited by W. E. FORSYTHE, General Electric Co.; Prepared under direction of a committee of the National Research Council

Electron Tubes in Industry. *New second edition*

By KEITH HENNEY, Editor, *Electronics*

Physics of Electron Tubes. *New second edition*

By L. R. KOLLER, Research Laboratory, General Electric Company. *International Series in Physics*

Send for copies on approval

McGRAW-HILL BOOK COMPANY, INC.

330 West 42nd Street, New York

Aldwych House, London, W.C.2

type, recording temperature, humidity and pressure on a smoked glass plate after the plan of the Dines engraving meteorograph. This instrument is extremely light, weighing only 40 grams, and despite its apparent delicate construction, it has given consistent, accurate results after several ascents. In addition to being inexpensive it is very accurate; temperatures can be read to within 0.1° C. The exhibit also includes a Vaisala meteorograph and the new Spilhaus vapor-pressure recorder.

Instruments for General Use in Meteorology and Climatology

Very complete collections of standard apparatus used in meteorology and climatology are exhibited by Julien P. Friez and Sons, the Taylor Instrument Companies, R. Fuess, Inc., and others. These include equipment in use at regular and special stations of the United States Weather Bureau, the Meteorological Services of the Army, Navy, the Signal Corps, and other public and private institutions.

Dr. J. E. Church, Meteorologist of the Nevada Agricultural Experiment Station, contributes snow-sampling equipment used in the measurement of snow (depth and water-content) for the purpose of ascertaining the amount of water available for irrigation. A metal tube of any desired length up to about 20 feet (6 meters), having at one end a steel cutter, is forced into snow on the ground to cut a section or sample; the depth is read on a scale engraved on the tube and the water-content is determined by weighing the tube and contents on a scale of special design whose zero is adjusted to the weight of the empty tube.

Professor George D. Clyde, of the Utah Agricultural Experiment Station, contributes a snow-sampler designed after the general plan of the Church sampler but including a scale much lighter and more economical to manufacture than that used with the Church instrument.

Miscellaneous

The Eppley Laboratories, Inc., offer a recording pyrheliometer, an instrument recording the variations of solar radiation on a Leeds and Northrup recorder. If possible this instrument will be set up so that it will give a trace of radiation incident upon it during the meeting.

The Mann Instrument Corporation offers samples of new lubricants, two new lacquers and a medium for preventing the creeping of oil away from bearings. These products are important in the maintenance in good condition of delicate apparatus.

The Blue Hill Observatory exhibit will include the head of an original Dines pressure-tube anemometer made by the inventor and contributed by him for trial during studies of anemometers conducted between 1891 and 1896, specimens of sensitive thermostatic metals used in delicate thermographs, and balsa-wood used in sensitive anemometers.

From the Agricultural Experiment Stations of Utah and Nevada; Snow sampling outfits, one of each type.

(These instruments have been developed for use in determining the amount of snow and its water-content available for irrigation in the arid regions.)

The Taylor Instrument Companies will contribute materially to the general exhibition, and will have many interesting meteorological instruments in their own booths.

Charts, Maps and Diagrams

The Blue Hill Observatory will exhibit one of the first synoptic weather-maps printed at a station of the Signal Service outside Washington, a chart of the highest, lowest and mean temperatures and the monthly precipitation during the past 96 years at Cambridge, Milton and Blue Hill, copies of records illustrating meteorological phenomena and the work and results of researches, including originals of measures of sensitivity of anemometers, chronograms of data transmitted by radio-meteorographs, etc.

The Weather Bureau will contribute a complete set of the manuscript maps made up in the forecast work of the bureau, as of the same date, including air-mass maps, as follows: Chart of Northern Hemisphere, $28'' \times 28''$; Map AA—Weather, $28'' \times 38''$; Map AA—Pressure-Change, $28'' \times 38''$; Cloud Chart, $18'' \times 24''$; Temperature-change Chart, $18'' \times 24''$; Upper Air Chart, pilot balloon, $23'' \times 23''$ A; Upper Air Chart, Airplane observations, $23'' \times 23''$ B; Air-mass Map, $22'' \times 34''$; Air-mass cross section, pasted together, totaling (for 4 cross-sections) $22'' \times 40''$. By way of contrast there will be included a photographic reproduction of the first official weather-map ever issued. There are also included charts in color from the Atlas of American Agriculture as follows: Average summer temperatures, average dates of first killing frost, average number of days without killing frost, average annual precipitation, and average warm-season precipitation; these charts are $16'' \times 24''$.

Professor J. C. Jensen, of Nebraska Wesleyan University, contributes three groups of pictures of lightning, as follows: Lightning discharges from cloud to earth showing various types of branching. Lightning discharges showing photographic reversal, or Clayden effect, and pictures of similar effects produced under laboratory conditions. Contact prints and enlargements from the series of five remarkable pictures of "ball" lightning obtained on August 30, 1930.

S. M. Serebreny, of New York University, contributes a series of graphs entitled "A Few High-altitude Runs and Some Interesting Facts about Them, Especially Above the 6,000 meter (20,000 foot) Level, as Observed at the New York University Meteorological Observatory."

METROPOLITAN LIFE INSURANCE COMPANY

New York

Booth Nos. 59, 60

Progress in Cancer Control. An exhibit of charts showing the number of deaths from cancer in the United States compared with other causes; chances at each age of eventually dying from cancer; chief sites of cancer, by age

Recent WILEY Books

Our Natural Resources and Their Conservation

A. E. PARKINS, *Editor-in-Chief*, J. R. WHITAKER, *Associate Editor*, and 20 contributors.

In non-technical style, this book gives a balanced, concrete view of resources and problems in their actual setting as a part of the organic units involved. Particular attention is given to the extent and distribution of our natural resources, and to their service in regional and national development; each problem discussed is sharply localized, being viewed as the outgrowth of natural and cultural conditions in specific parts of our country.

650 pages; 121 illus.; 6 x 9; \$5.00

Introduction to Theoretical Seismology, Part I—Geodynamics

By JAMES B. MACELWANE, S.J., *Professor of Geophysics and Director of the Department of Geophysics, St. Louis University.*

This book offers a clear and competent treatment of elasticity, the propagation, reflection and refraction of elastic waves, and the paths and velocities of earthquake waves in the interior of the earth. Especially valuable are the tabulation and critical discussion of information on earth structure.

366 pages; 82 illus.; 6 x 9; \$6.00

Statistical Methods in Biology, Medicine and Psychology

By C. B. DAVENPORT, *Carnegie Institution of Washington, Cold Spring Harbor, New York*, and MERLE P. EKAS.

A constantly useful desk book or handbook by means of which various statistics may be computed. Method of computing is shown, together with illustrations of some of the machines which make computation easy and rapid. This book is suitable for use as a practical reference and guide in laboratory work on variation in the field of biology, agriculture, medicine, psychology, education, commerce, physics and chemistry. The present edition is even wider in its scope of usefulness than previous editions have been. *Fourth Edition.*

216 pages; 26 illus.; 4½ x 7½; \$2.75

Principles of Structural Geology

By CHARLES M. NEVIN, *Professor of Geology, Cornell University.*

The purpose of this book is to discuss, as simply as possible, the deformations of the earth. During the past few years, intensive research and field work have thrown so much light on the problems of structural geology that a thorough modernization was found necessary. An entirely new chapter on Structures Associated with Igneous Intrusion has been added. *Second Edition.*

348 pages; 163 illus.; 6 x 9; \$3.50

Electronics and Electron Tubes

By E. D. McARTHUR, *Vacuum Tube Engineering Department, General Electric Company.*

A book that emphasizes the fundamental principles which govern the action of all electron tubes, with space devoted to applications to illustrate their versatility. The book is essentially non-mathematical, but includes a statement of all important equations and data for their use. This part of the work includes not only the individual physical phenomena contributing to the tube characteristics, but also the tube characteristics themselves, illustrated by data taken on typical tubes.

173 pages; 89 illus.; 6 x 9; \$2.50

John Wiley & Sons, Inc., 440 Fourth Ave., New York

groups; trend of cancer death rate by site, also by age; curability of cancer of certain sites as reported in recent medical literature. The object of the exhibit is to indicate the nature of the scientific researches conducted by the company in the fields of vital statistics and of public health work.

NATIONAL BROADCASTING COMPANY

New York
Booth Nos. 31, 32

The National Broadcasting Company as a newcomer in the world of science participates as one of the agencies advancing the cause of science in the world of art.

THE NATIONAL BUREAU OF STANDARDS

Washington, D. C.
Booth Nos. 49, 50

Apparatus for Recording of Temperatures and Pressures of the Atmosphere at High Altitudes: This apparatus consists of radio meteorograph and radio receiver which successfully record measurements of temperatures and pressures of the atmosphere up to altitudes of 25 kilometers. The balloon unit is driven by a d-c motor drawing 4 milliamperes. The actual weight of the complete unit is 480 grams. The radio meteorograph unit transmits signals, representing (by their relative intervals), temperature and pressure, four times each minute. These short wave signals are picked up and recorded by the radio receiver at the receiving station. Apparatus for Demonstrating Gravitation: This apparatus is built after the pattern of the apparatus designed by Sir Charles Boys about 30 years ago for demonstrating the attraction for gravitation. Apparatus for the Development of Fundamental pH Standards: The close control of acidity or pH value has become very important in many commercial operations in order to standardize the processing quality of the products. The equipment exhibited is in connection with the development of the pH factor, one of the fundamental standards. Ionosphere Exhibit: This exhibit illustrates characteristics of the ionosphere. It includes a drawing of a 50° arc of the earth's surface with the ionosphere layers drawn to scale as measured at Washington during June, 1936. It shows how the ionization varies with height above the earth and gives the range of heights of the various layers. Graphical records typical of ionosphere measurements are included, together with graphs summarizing results obtained. One of the graphs gives data for several years, compared with sunspot numbers.

NATIONAL GEOGRAPHIC SOCIETY

Washington, D. C.
Booth Nos. 4, 5

The National Geographic Society exhibit will feature the original gondola of the stratosphere balloon *Explorer II* which attained the greatest altitude reached by man, 72,395 feet, on November 11, 1935, on a flight under auspices of the society and the U. S. Army Air Corps. With the gondola will be shown ballast bags, cameras and other equipment and scientific instruments used on the flight. Noteworthy will be enlarged photographs taken during the flight, one showing the curvature of the earth on the horizon and another the appearance of the earth

below when the balloon was at its maximum altitude. A painting by Juan Larrinaga, 32 by 14 feet, showing the "stratobowl" in the Black Hills with the balloon rising from it, will be displayed. Large charts indicating some of the scientific results of the flight also will be shown.

PFALTZ AND BAUER, INC.

New York
Booth No. 104

Pfaltz & Bauer, Inc., have an interesting display of photoelectric cells and laboratory apparatus to which they have been applied. Many of these instruments are entirely new and are very valuable in scientific research. In addition—some analytical and micro-balances will be shown, including the latest development of micro-balances with quartz stick rider and mechanical manipulation of fractional weights. Also various optical instruments, including microscopes and accessories, polariscopes, etc., and ultra-filtration apparatus.

PHIPPS AND BIRD, INC.

Richmond, Va.
Booth Nos. 71, 72

An exhibit by Phipps and Bird will show certain recent advances in bacteriological and physiological apparatus resulting from the application to these sciences of modern trends in instrument practice and air-conditioning technique. The application of controlled humidity to bacteriological incubators will be featured. Physiological apparatus, powered by modern types of alternating current motors or controlled by the now widely available standard frequency alternating current, will be displayed as further illustrations of this trend.

THE POLARIZING INSTRUMENT COMPANY

New York
Booth No. "G"

Polarizing Microscope Attachment to fit any type scope; also an attachment with a rotating stage. Large area glass strain testing polariscope. Projection lantern—projects vertically or horizontally, either polarized light or ordinary light. Photoelastic Polariscope demonstrating stress determination with large transparent models. And other applications intended to demonstrate the convenience and utility of Polaroid in a few of its many commercial and scientific adaptations.

RADIO CORPORATION OF AMERICA

New York
Booth Nos. 29, 30

A special feature of the exhibit of Radio Corporation of America is a magnetron tube in which the path of electrons is actually visible, and its variation shown under different operating conditions. There has been much mathematical speculation concerning this motion, but this is believed to be the first actual demonstration and conclusive proof of what happens in a magnetron oscillator. The other elements of the R. C. A. exhibit are intended to illustrate how research and development conducted in one field frequently suggests applications of technique and devices in others. In this instance electronics, a science born of radio development, is shown to be applicable to

To be widely adopted for second semester

ECONOMIC GEOLOGY OF MINERAL DEPOSITS

By E. R. LILLEY
New York University

This new text is comprehensive and up-to-date, it treats non-metallic minerals fully, discusses mining methods, and includes a description of foreign competition areas. \$5.00

First Opinions

"You are to be complimented on being responsible for the publication of so excellent a book."—Charles H. Behre, Jr., *Northwestern University*

"I hope it will be possible for us to make use of this book in our courses."—T. T. Quirke, *University of Illinois*

"Fills a long felt need for a well balanced text which treats adequately both the metallic and non-metallic minerals."—Albert O. Hayes, *Rutgers University*

"This book is as fine as any I have seen, or any that is now on the market. Therefore I shall use it in my classes."—J. P. Rowe, *State University at Missoula*

"The work appears to be very meritorious."—F. M. Van Tuyl, *Colorado School of Mines*

"Covers briefly but adequately the whole field indicated by the title. The whole work is well balanced . . . and is illustrated by well chosen sketches and diagrams."—H. Foster Bain, in *Mining and Metallurgy*

To be published in January

A new edition of A FIRST COURSE IN THE DIFFERENTIAL AND INTEGRAL CALCULUS

By WALTER B. FORD
University of Michigan

The latest revision of this much admired and standard text retains the same plan of presentation—the use of theorems to state the problems under consideration.

Much of the material has been completely or partially rewritten.

Longer chapters have been broken up to make them more flexible for class assignment.

New problems have been added; eleven of the illustrations are new or revised.

Probable price, \$3.00

Overwhelmingly approved

A SURVEY OF PHYSICS FOR COLLEGE STUDENTS

Revised Edition

By FREDERICK H. SAUNDERS
Harvard University

The approval given to the revised edition of this text puts it in the best seller class. Two printings were sold out this fall, and we now have a third large printing ready to take care of new second semester adoptions.

"Average and proficient students who have worth-while opinions make the frequent statement that Saunders' text is interesting and profitable."—F. R. Watson, in *Review of Scientific Instruments*.

\$3.75

HENRY HOLT AND COMPANY
257 Fourth Avenue, New York

industry in general. It is demonstrated that the electron tube can perform many tasks hitherto either impossible or attainable only in degree by much greater effort and more cumbersome devices.

THE REINHOLD PUBLISHING CORPORATION

New York
Booth No. 46

The Reinhold Publishing Corporation will have an exhibit consisting of technical and scientific books, including the American Chemical Society Monographs, Colloid Symposium Monographs, Annual Survey of American Chemistry Series, Alexander's great work entitled, "Colloid Chemistry," published in four volumes, "The Condensed Chemical Dictionary" and other reference works.

RURAL ELECTRIFICATION ADMINISTRATION

Washington, D. C.
Booth "H"

With diorama photographs, charts and other devices, the many uses for electricity on farms will be suggested by the Rural Electrification Administration. The discrepancy between 0.16 K.W. for the farmer and the 3.20 K.W. available to the city worker will be depicted and likewise the great lag in electrification on the farm as compared with automobile and telephone use. The attendant with the aid of the display and literature will explain the plan and procedure of the Rural Electrification Administration.

W. B. SAUNDERS COMPANY

Philadelphia
Booth No. 48

W. B. Saunders Company will exhibit their complete line of text books and reference volumes dealing with the biologic sciences. Of special interest will be the newly revised edition of Howell "Physiology," Sollmann "Pharmacology," and MacCallum "Pathology." There will also be advance copies of the new Army and Fischel's "Principles of Pharmacy."

SPENCER LENS COMPANY

Buffalo, N. Y.
Booth No. 86

There will be a complete display of Spencer Lens Company apparatus. This includes microscopes, both routine and research types; microtomes; micro-lamps; photomicrographic cameras and projection apparatus. The Spencer representatives will discuss your laboratory problems involving equipment of this type.

THE STUDENT SCIENCE CLUBS OF AMERICA

Booth Nos. 97, 98

The Student Science Clubs of America, a national affiliation of science clubs in high schools and elementary college classes throughout the country, will exhibit the work of representative biology, chemistry, physics and astronomy clubs. The exhibits will attempt to show how student clubs are making science more interesting to their members through field trips, programs, publications and national broadcasts.

SUPERIOR TUBE COMPANY

Norristown, Penna.
Booth "A"

In July, 1935, the Superior Tube Company announced entry as producer of seamless tubing in various metals. In the second year the technical staff was increased and the production and wages were doubled. Eight new industries have been served during the year. The representative of this company will discuss laboratory problems involving special properties and dimensions in tubing.

TAYLOR INSTRUMENT COMPANIES

Rochester, N. Y.
Booth Nos. 76, 77

There will be displayed by the Taylor Instrument Companies of Rochester, New York, a number of instruments typical of the new advancements of those used in meteorology, and in the measurement and control of time, temperature, pressure, flow and liquid level factors in industry.

UNIVERSITY PRESSES

A Cooperative Exhibit
Booth Nos. 42, 43

Eight university presses will join in displaying their scientific and technical books and journals at the Christmas meeting of the American Association for the Advancement of Science. The cooperative presses include Oxford University Press, Cornell University Press, University of Minnesota Press, Princeton University Press, Yale University Press, Columbia University Press, University of North Carolina Press and the University of Chicago Press.

In an adjoining booth special astronomical materials will be shown, including lantern slides, films and photographs from Yerkes Observatory. In this connection the university presses will feature a display of all their astronomical titles.

D. VAN NOSTRAND COMPANY, INC.

New York
Booth No. 10

Van Nostrand Company will display its latest publications in the scientific field, which include not only textbooks but reference works of general interest to science. In addition to new text-books in chemistry, physics, geology and other sciences, there will be up-to-date reference works on atomic physics, chemical analysis, chemical structure and many other special subjects of outstanding scientific interest.

WARREN-KNIGHT COMPANY

Philadelphia
Booth No. 11

A display of Wrico Lettering Guides and Plastic Moulage materials. The lettering guides are for use by all kind of scientists in the making of graphs, charts, lantern slides and manuscripts. The Plastic Moulage materials will be demonstrated for making reproductions of animate and inanimate objects, such as reproducing fingers, hands and possibly some face masks as well as reproductions of fruits, vegetables, small animals, mushrooms and other interesting objects.