

# SCIENCE

VOL. 89

FRIDAY, APRIL 21, 1939

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SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. McKEEN CATTELL and published every Friday by

## THE SCIENCE PRESS

New York City: Grand Central Terminal

Lancaster, Pa.

Garrison, N. Y.

Annual Subscription, \$6.00

Single Copies, 15 Cts.

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.

## THE OPPOSITION TO EUGENICS<sup>1</sup>

By Professor S. J. HOLMES

UNIVERSITY OF CALIFORNIA

THE sanguine eugenicist looks upon the improvement of the inborn qualities of the race as an end so obviously worthy that he has difficulty in understanding how any intelligent and normally constituted person can fail to share his own enthusiasm for this cause. Even the man in the street must be aware that it is one of the greatest misfortunes to be ill-born, especially if this should cause one to be hopelessly deformed, blind, idiotic or insane, and that, on the other hand, it is one of the greatest blessings to be well born, to inherit a fine endowment of physical, intellectual and emotional characteristics.

Obviously, people differ in a large number of hereditary traits that profoundly affect their happiness and their value as members of society. It follows inevitably that the race would be much better off if we

<sup>1</sup> Presidential address before the American Eugenics Society, New York, November 30, 1938.

could eliminate the inherited factors that contribute to fill our asylums with morons and lunatics, and if the race were propagated by those of its members who are above the average in physical vigor, intelligence and emotional traits that make for sound character and a normal happy existence. Here is this race of ours carrying its burden of hereditary defects so numerous that a mere inventory of them would not be possible in the time allotted to this address. In this race of ours are also the genetic factors that afford the physical basis for the development of outstanding personalities whose achievements may be of incalculable service to their fellowmen. How, then, can any one fail to be in fundamental accord with the chief aims of practical eugenics, however great may be the differences of opinion as to how these aims may best be brought about? It seems, therefore, very simple and obvious to the enthusiastic eugenicist that racial improvement is

ments of the work for which the rod is intended; however, an angle of ninety degrees was found satisfactory for most general work.

#### THE USE OF THE ROD FOR TRANSILLUMINATION

The finished rod was supported by a burette clamp on a ring stand where it could then be adjusted to the desired position for operations. The light-delivering end of the rod should be placed in such a position that its surface is parallel to the surface of the microscope objective, this being necessary to produce a field of even illumination. The small tip can be inserted into incisions in live animals such as dogs, cats, rats and frogs for microscopic study of the living organs. For illumination of such tissues as frog or rat mesentery, a sixty-watt lamp placed at the large end of the rod gave sufficient light for observation. For illumination of structures containing pigment, such as liver, a light source of higher intensity will prove more satisfactory. When using the carbon arc for illumination over extended periods, it is necessary to place a water jacket around the large end of the rod to prevent the softening of the rod by the heat from the arc. Lucite rods have been found to give an even field of illumination at both high and low magnifications.

This illuminator may be also used as a very satisfactory substitute for the Abbe condenser and substage mirror of a microscope in general histological work. Sections thus illuminated stand out in brilliant definition. For all general histological sections, a "daylight" sixty-watt lamp gave ample light for oil immersion.

LEE S. FENT

KANSAS STATE COLLEGE

#### LANTERN SLIDES FROM TYPEWRITTEN MATERIAL

A METHOD of making lantern slides of tabular and text matter, which eliminates one step in the photographic process, is to type the data through white carbon paper on black paper. The ribbon indicator on the typewriter is set at the position for stencil cutting, to obtain as white an imprint as possible from the carbon paper. The material transferred as white on black paper is then photographed in ordinary daylight (artificial light does not give good results), Eastman contrast lantern slide plates being used as negatives. Each negative is bound with a cover glass as an ordinary lantern slide. This method results in slides that show black letters and figures on a white background and avoids the necessity of making positives after the negatives are made. Kymograph records on smoked paper can be mounted on black paper, the legends typed through the white carbon paper, and both the records and the legends will be reproduced photographically as black on white. Simple curves

and diagrams can be traced through the white carbon paper onto the black paper. We have been unable to find a white typewriter ribbon on the market. For black paper we have found the "Black Antique Atlantic Cover" (20 × 26 – 65) of the Cook-Vivian Company satisfactory and for white carbon paper the "Panama White Carbon" of the Manifold Supplies Company, both of Boston.

THORNE M. CARPENTER

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#### BOOKS RECEIVED

- Actualités Scientifiques et Industrielles: 653, Leçons de Métrologie, III, Mesure des Temps, Vitesses, Débits.* Pp. 110. 93 figures. 30 fr. 654, *Physique Théorique, XXIII, Application de la Méthode du Champ Self-Consistent aux Noyaux Atomiques.* Pp. 88. 25 fr. 655, *Photochimie, II, The Determination of the Mechanism of Photochemical Reactions.* Pp. 71. 18 fr. 656, *Photochimie, III, The Photochemistry of the Halogens.* Pp. 53. 20 fr. 658, *Bibliothèque de la Société Philomathique de Paris, III, L'Activité Electrique de L'Écorce Cérébrale.* Pp. 46. 14 plates. 8 figures. 15 fr. 662, *Biochimie de la Choline et de Ses Dérivés, I, Choline-Neurine.* Pp. 61. 15 fr. Hermann, Paris.
- BATES, L. F. *Modern Magnetism.* Pp. ix + 340. 97 figures. Cambridge University Press, Macmillan. \$4.50.
- BEGHIN, P. *Le Fonds National de la Recherche Scientifique et L'Industrie.* Pp. ix + 408. 135 figures. Le Fonds, Bruxelles, Belgium.
- CANELLA, MARIO F. *Orientamenti Della Moderna Biologia.* Pp. 141. Nicola Zanichelli, Bologna.
- DALCQ, ALBERT M. *Form and Causality in Early Development.* Pp. 197. 64 figures. Cambridge University Press, Macmillan. \$3.50.
- GUSTAFSON, A. F. and others. *Conservation in the United States.* Pp. xi + 445. 232 figures. Comstock Publishing Co. \$3.00.
- HEINRICH, CARL. *The Cactus-Feeding Phycitinae: A Contribution Toward a Revision of the American Pyralidoid Moths of the Family Phycitidae; Vol. 86, No. 3053, Proceedings of the U. S. National Museum, 1939.* Pp. 331-413. 51 plates. Smithsonian Institution, Washington.
- MCCURDY, JAMES H. and LEONARD A. LARSON. *The Physiology of Exercise; a Text-Book for Students of Physical Education.* Third edition, revised. Pp. 349. 2 figures. Lea and Febiger. \$3.75.
- MITCHELL, H. L. *The Growth and Nutrition of White Pine (Pinus Strobus L.) Seedlings in Cultures with Varying Nitrogen, Phosphorus, Potassium and Calcium.* Black Rock Forest Bulletin No. 9, Henry H. Tryon, Director. Pp. vi + 135. 22 figures. The Director, Cornwall-on-the-Hudson, New York. \$1.50.
- RICKETTS, EDWARD F. and JACK CALVIN. *Between Pacific Tides; An Account of the Habits and Habitats of Some Five Hundred of the Common, Conspicuous Seashore Invertebrates of the Pacific Coast between Sitka, Alaska, and Northern Mexico.* Pp. xxii + 320. 112 figures. 46 plates. Stanford University Press. \$6.00.
- TRUE, W. P. Editor. *Explorations and Field-Work of the Smithsonian Institution in 1938; Publication No. 3525.* Pp. 116. 122 figures. The Institution, Washington.
- VASCONEZ, PABLO A. *Síntesis, Obras V.* Pp. 158. Editorial Labor, Quito, Ecuador.
- WILLIS, L. G. *Bibliography of References to the Literature on the Minor Elements and their Relation to Plant and Animal Nutrition.* Third edition. Pp. 488. Chilean Nitrate Educational Bureau, New York.

## The Foundations of Science

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