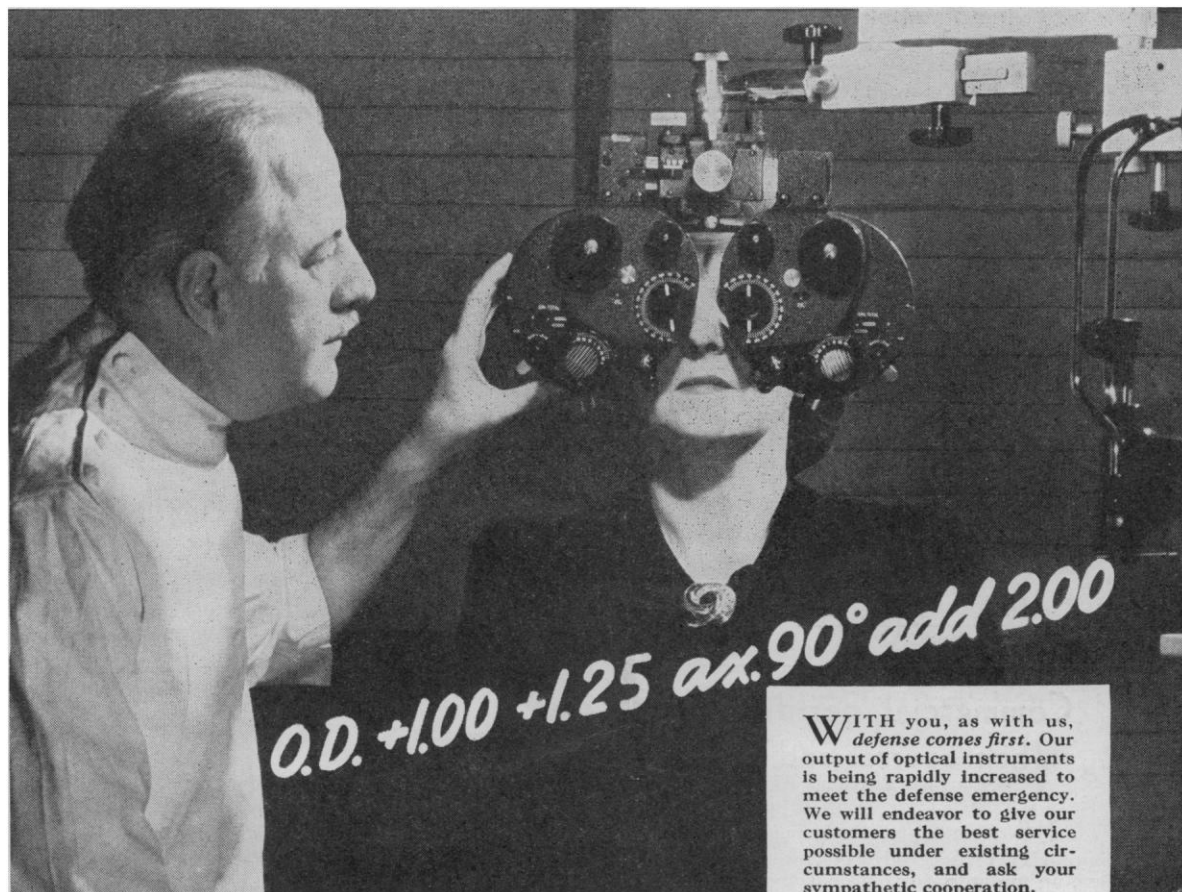


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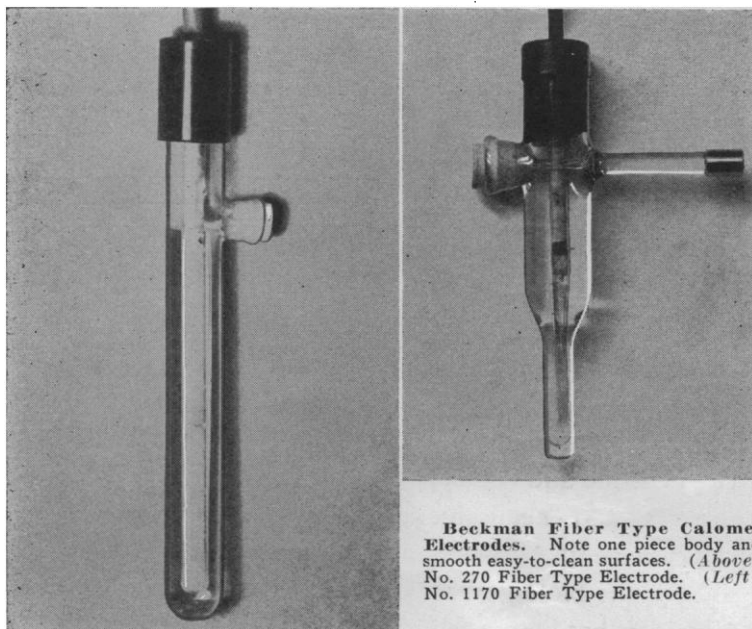
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2. DU VIGNEAUD, V., CHANDLER, J. P., MOYER, A. W., and KEPPEL, D. M.: *J. Biol. Chem.*, 131:57:1939.
3. SINGAL, S. A., and ECKSTEIN, H. C.: *Proc. Soc. Exper. Biol. & Med.*, 41:512:1939.
4. VIRTUE, R. W., and DOSTER-VIRTUE, M. E.: *J. Biol. Chem.*, 128:665:1939.

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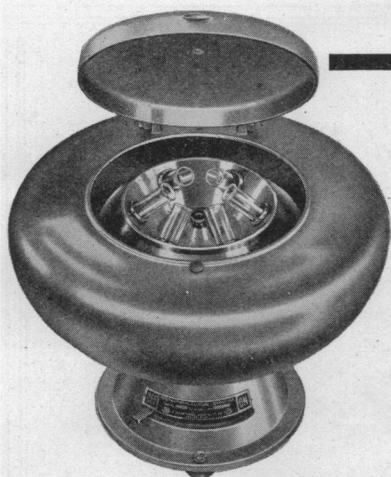
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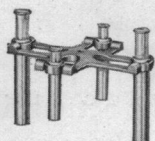
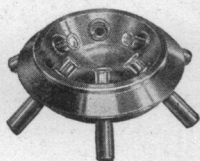
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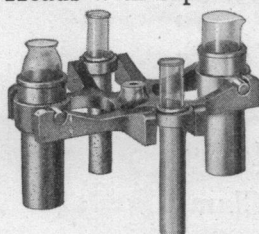
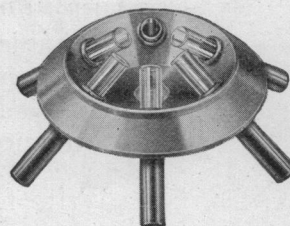


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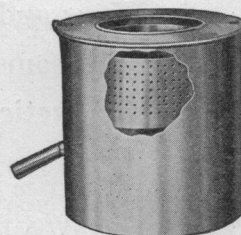


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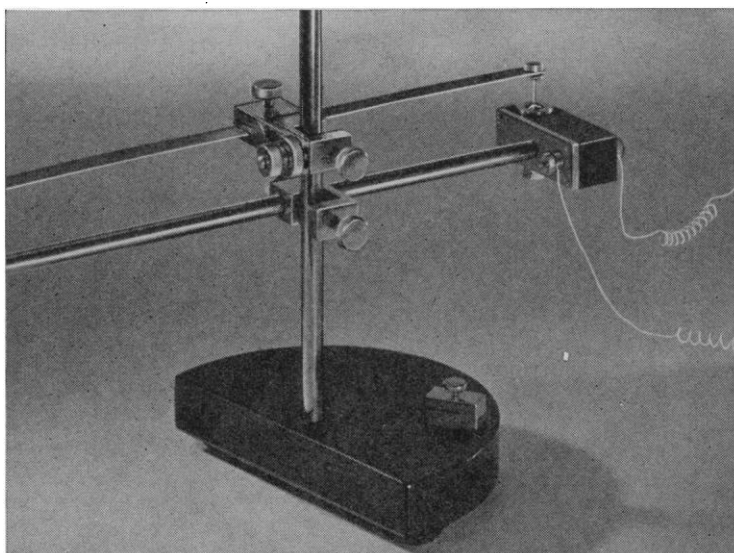
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SCIENCE, NATIONAL AND INTERNATIONAL, AND THE BASIS OF COOPERATION¹

By Dr. A. V. HILL, M.P.

FOULERTON RESEARCH PROFESSOR AND SECRETARY OF THE ROYAL SOCIETY

I SHOULD be the last to claim that we scientific men, as a class, are less liable to prejudice on grounds of self-interest, race, politics or religion than other educated people; and we should deceive ourselves, and perhaps some uncritical members of the public, if we were to assume (as some of us seem to do) that scientific eminence, or the scientific habit of mind, as such, or even scientific notoriety, give any special virtue to our opinions on more ordinary topics. It is, nevertheless, a fact that the nature of our occupation makes scientific men particularly international in their outlook. In its judgments on facts science claims to be independent of political opinion, of nationality, of material

profit. It believes that nature will give a single answer to any question properly framed, and that only one picture can ultimately be put together from the very complex jigsaw puzzle which the world presents. Individual and national bias, fashion, material advantage, a temporary emergency, may determine which part of the puzzle at any moment is subject to the greatest activity. For its final judgments, however, for its estimates of scientific validity, there is a single court of appeal in nature itself, and nobody disputes its jurisdiction. Those who talk, for example, of Aryan and non-Aryan physics or of proletarian and capitalist genetics, as though they were different, simply make themselves ridiculous. For such reasons the community of scientific people throughout the world is convinced of the necessity of international collaboration;

¹ Read at the Annual General Meeting of the Parliamentary and Scientific Committee held in the House of Commons.

avoided by filling the cell through a thin glass tube introduced beyond the stopcock, which for this purpose was chosen to be of large bore. Mercury is added until its surface reaches the middle of bulb C. At this point the diameter of the bulb is the same as the body of the cell allowing a good surface of contact between mercury and calomel. The bulb is limited by two constrictions. The lower one, usually found in electrodes of this type, prevents the solutions from wetting the platinum wire. The upper constriction is filled with KCl crystals by filling the cell with slightly supersaturated KCl solution. The crystals settle and pack together in a short time. This minimizes the disturbance of the active interfaces when the electrode is moved.

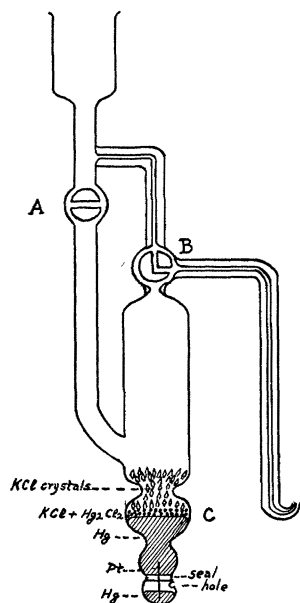


FIG. 1

Flushing the connecting arm with saturated KCl from the reservoir is done by turning the stopcock B to the position indicated in the diagram. During determinations the stopcock B is turned a quarter turn from the position in the diagram, providing a continuous column of conducting liquid with little resistance. If the cell has been subjected to changes of temperature, the change in the internal pressure can be eliminated by momentarily opening the cell towards the connecting arm after previously flushing the latter.

The end of the connecting arm may be shaped in any form desired such as the enlarged bulb type designed by Clark to obtain reproducible liquid junctions.

The cell as described is very rugged and gives very constant potentials.

M. GARCIA BANUS

TUFTS COLLEGE MEDICAL SCHOOL

A CONVENIENT METHOD OF LABELING BOTTLES

I AM interested in the note furnished by Messrs. Gurchot and Finnegan¹ regarding the labeling of bottles. I have used the same method and found it satisfactory. Also I have found that one-inch wide transparent cellulose tape is excellent for protecting the labels on microscope slides. Formerly I used clear shellac to protect the label, but I find that cellulose tape is better since it gives enduring protection.

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While the glycerine is boiling, the syringe should be removed with tongs and the plunger pulled with a towel or a pair of heavy forceps. If the plunger does not come out the syringe may be boiled again and a second or third trial made. It usually comes out the first time.

W. R. GOFF

UNIVERSITY OF GEORGIA SCHOOL OF MEDICINE

¹ Charles Gurchot and Jack K. Finnegan, *SCIENCE*, 93: 2412, 288, March 21, 1941.

BOOKS RECEIVED

- American Philosophical Society. *Proceedings*, Vol. 84, No. 2; *Commemoration of the Life and Work of Alexander Dallas Bache and Symposium on Geomagnetism*. Pp. 125-351. Illustrated. The Society, Philadelphia.
- BRODIE, BERNARD. *Set Power in the Machine Age*. Pp. viii + 466. Princeton University Press. \$3.75.
- FULLER, HARRY J. *The Plant World; A Text in College Botany*. Pp. xi + 592. 306 figures. Holt. \$3.25.
- KASNER, EDWARD and JAMES NEWMAN. *Mathematics and the Imagination*. Pp. xiv + 380. 169 figures. Simon and Schuster. \$2.75.
- LAUGHLIN, HARRY H. *Immigration and Conquest; A Report of the Special Committee on Immigration and Naturalization of the Chamber of Commerce of the State of New York*. Pp. 267. The Committee, New York.
- MILES, HENRY J. *A First Year of College Mathematics*. Pp. xvii + 607. 191 figures. Wiley. \$3.00.
- MILLER, W. J. *Introduction to Physical Geology*. Pp. xi + 465. 397 figures. Van Nostrand. \$3.25.
- SNELL, GEORGE D. *Biology of the Laboratory Mouse*. Pp. 497. 172 illustrations. Blakiston. \$7.00.
- SUTHERMEISTER, EDWIN. *Chemistry of Pulp and Paper Making*. Third edition. Pp. xii + 529. 62 figures. Wiley. \$6.50.
- Universidad Central del Ecuador. *Anales; Julio-Setiembre de 1940*. Pp. 444. Universidad.
- WELLS, VOLNEY H. *Elementary Calculus*. Pp. xiii + 410. 127 figures. Van Nostrand. \$3.25.

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