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THE INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS

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IN times when there is a tendency to the nationalization of science it is well to realize that there are earth sciences relating to the physics of the earth as a whole —geophysics—which know no national boundaries. Though there are a number of international organizations which deal with these earth sciences from various view-points, there is only one which brings them together and treats them from the view-point of the world as a whole. This is the International Union of Geodesy and Geophysics, which has been in existence since 1919 and which grew out of other organizations which came into existence as early as 1862. This union is made possible through financial support from a large number of countries now numbering 37. In most cases the adhering body is not the government but the national committee on geophysics.

In the case of the United States the situation is somewhat complicated. The National Research Council is the adhering body, but the national committee on geophysics is the American Geophysical Union. The latter as a whole is not part of the National Research Council, but its executive committee, made up of officers, chairmen of certain standing committees and certain ex-officio members from the Research Council itself, constitutes the Committee on Geophysics of the National Research Council.

The International Union of Geodesy and Geophysics is composed of seven associations, which are autonomous in scientific matters. These relate to geodesy, seismology, meteorology, terrestrial magnetism and electricity, physical oceanography, volcanology and scientific hydrology.

The American Geophysical Union is the American branch of the International Union. It has seven sec-

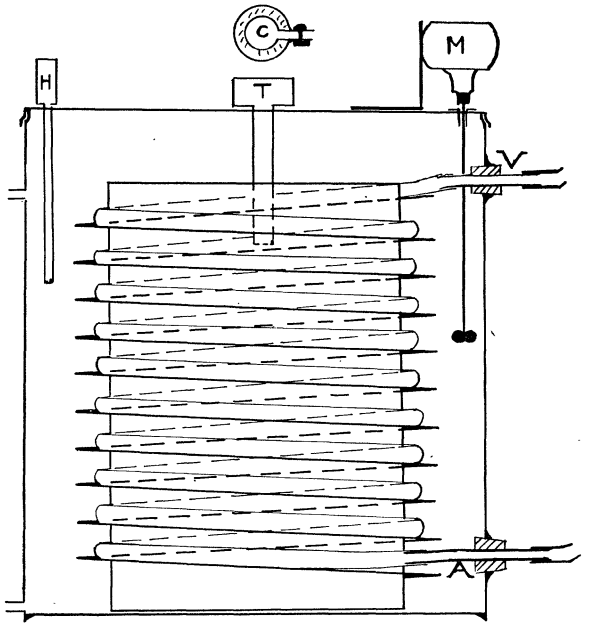

FIG. 1.

used the apparatus was first filled with blood taken from another dog. With dogs weighing 20 kilos or more this was not done. Typical results obtained are shown in Table 1.

TABLE 1

Expt. No.	Blood level at start mg/100 cc		Grams removed in two hours	
	Urea nitrogen	Non-protein nitrogen	Urea nitrogen	Non-protein nitrogen
(1) Nephrectomized ..	237	270	3.74	4.11
(2) Nephrectomized ..	203	255	3.26	3.62
(3) Normal ..	14	22	0.23	0.31
(4) " ..	12	27	0.24	0.34

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LUCITE NOT A SUBSTITUTE FOR CANADA BALSAM WHEN MOUNTING MICROSCOPE SLIDES[1]

LUCITE[2] is a crystal-clear methyl methacrylate polymere which has a refractive index nearly the same as glass and is readily soluble in dioxan. Dioxan[3] has proven useful as a dehydrating agent for the preparation of sections and objects to be mounted for observation with the microscope. Thus with the Lucite in dioxan solution it should be possible to mount the preparations as soon as they are dehydrated. In fact, the Lucite hardens rapidly and the mounts are firm enough for use in about an hour after they are mounted on a slide under a cover glass. After a time the Lucite dries and contracts and draws air bubble channels under the cover glass. When no cover glass is used, successful, stained smear preparations have been made.[4] Our own preparations, mounted in Lucite dissolved in acetone, amyl acetic, ethyl acetate or dioxan with no cover glass, show much less fading at the end of five months than those mounted under a cover glass.

Unfortunately, the Lucite dissolved in dioxan bleaches many of the more important stains used in microscopy which, in the order of least faded to completely faded, are the following: basic fuchsin, methylene blue, eosin, Heidenhain's iron haematoxylin, Ehrlich's haematoxylin, acid fuchsin and light green (all aqueous solutions or standard formulae). Dissolving the Lucite in other solvents (acetone, amyl acetate, ethyl acetate) did not prevent the fading. The decolorizing of the stained sections takes place in from a few days to five months. Furthermore, the sections are less well cleared than they are in balsam or damar. Clearing is very poor also when the sections are mounted with no cover glass, but the use of an immersion oil then clears the sections fairly well.

Lucite is unsatisfactory as a mounting medium for microscope slides for other than temporary use, because the Lucite decolorizes the stained sections and in drying forms air-bubble channels which spoil the preparation mechanically. When no cover glass is used the fading is much less rapid.

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[1] From the Marine Biological Laboratory, Chemical Room.

[2] Formerly called Pontalite; manufactured by du Pont.

[3] H. W. Mossman, *Stain Tech.*, 12: 147, 1937.

[4] B. F. Skiles and C. E. Georgi, SCIENCE, 85: 367, 1937.

BOOKS RECEIVED

CORNICK, PHILIP H. *On the Problems Created by the Premature Subdivision of Urban Lands in Selected Metropolitan Districts in the State of New York.* Pp. xxi + 346. Illustrated. Division of State Planning, Albany. $1.00.

FERRAR, W. L. *A Text-Book of Convergence.* Pp. vi + 192. Oxford University Press. $3.50.

HANSON, EARL P. *Journey to Manaos.* Pp. 342. Illustrated. Reynal and Hitchcock. $3.00.

JACKS, G. V. and R. O. WHYTE. *Erosion and Soil Conservation. Bulletin No. 25, Herbage Publication Series. March, 1938.* Pp. 206. Illustrated. Imperial Bureau of Pastures and Forage Crops, Aberystwyth, Great Britain. 5s. In Canada and U. S., $1.25.

MOORE, NORMAN. How to Draw What You See. Pp. 135. Illustrated. Hillman-Curl. $1.50.

NEWSTETTER, WILBER I., MARC J. FELDSTEIN and THEODORE M. NEWCOMB. *Group Adjustment; A Study in Experimental Sociology.* Pp. xv + 154. School of Applied Social Sciences, Western Reserve University, Cleveland.

OPARIN, A. I. *The Origin of Life.* Translated by Sergius Morgulis. Pp. viii + 270. Macmillan. $2.75.