

Sir William Mulock, chancellor of the University of Toronto and former Chief Justice of Canada, presented at these hearings a brief summarizing his study of the original trial. He characterized the evidence as inadequate and criticized the conduct of the trial judge.

Therefore, it appears that Dr. Levine was sentenced to prison, and to have remained with his internment a prisoner for nearly a year, because the trial judge and the Minister of Justice committed acts leading to a miscarriage of justice. They were enabled to act thus because the Defense of Canada Act, adopted in war hysteria, is harsh and undemocratic. Great Britain, closer than is Canada to the war's dangers, has not found such laws necessary. For example, possession in Canada of Communist pamphlets which are freely printed in Britain is an offense, as is membership in the Communist Party. American scientists are well aware through reading *Nature* of the free and active discussions on Marxism, socialism and dialectical materialism which are engaging the interests of British scientists. It is ironical that Dr. Levine incurred the enmity of the Fascists interned in the camp so that he was in danger of physical harm, and was transferred to another camp by the authorities.

Dr. Levine's devotion to his work is exemplified by the fact that he continued as best as he could under at times brutal treatment his research work in geophysics and practically completed the mathematical treatment of a complex problem in the theory of electrical transients as applied to the exploration of subsurface formations. He is now seeking reinstatement at the University of Toronto, but this reinstatement, which rests with the Board of Governors, is not yet assured in spite of support by eminent colleagues.

The injustice to which Dr. Levine has been subjected through a year of baseless imprisonment may be continued unless the pressure of scientific opinion is exerted in his behalf. The success of the previous efforts by scientists in obtaining Dr. Levine's release augurs well for success in obtaining his reinstatement. The continuation of Dr. Levine's scientific work is particularly important now, since his geophysical researches promise to contribute significantly to the success of the Canadian war efforts in the international fight against Fascism. The scientists of the United States, as citizens of a country which is also pledged to cooperation in this fight, have the right to expect that Dr. Levine's training and abilities will be fully utilized by Canada in the aid of our joint efforts.

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DIMINUTION IN ABILITY OF THE LIVER TO INACTIVATE ESTRONE IN VITAMIN B COMPLEX DEFICIENCY

THE recent work of Rhoads and his associates¹ on the effect of vitamin B complex in preventing cancer of the liver caused by dimethylaminoazobenzene, indicates that this involves a detoxication mechanism in which the cozymase system is implicated. This led us to investigate the possibility that the vitamin B complex might be concerned in the inactivation of other substances in the liver.

G. R. Biskind and Mark² demonstrated that when a pellet of a crystalline estrogen or androgen is implanted in the spleen of a castrate rat, the specific effect of the steroid is not manifest. If the spleen is subsequently transplanted subcutaneously and its pedicle ligated, the specific estrogenic or androgenic effect becomes evident. This method appeared to be ideal for investigation of the effect of vitamin B complex deficiency on the ability of the liver to inactivate steroids.

A preliminary study with estrone indicates that deficiency of the vitamin B complex in rats markedly diminishes the inactivation of this steroid in the liver. Pellets of estrone weighing approximately 5 mg were implanted in the spleens of adult castrate female rats. After a period of about 3 weeks on a normal diet, during which the rats remained anestrus, they were placed on a vitamin B complex-free diet. Within 2 weeks irregular estrual changes began to take place; after about 3 weeks the animals remained in constant or nearly constant estrus. After 39 days on the vitamin B complex-free diet the rats were sacrificed for inspection of the spleens. In no case were adhesions present that might have permitted blood from the spleen to enter the systemic circulation.

Further studies, both *in vivo* and *in vitro*, on the effect of the B vitamins on the inactivation of estrogens and androgens in the liver are in progress and will be reported in detail later.

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PANTOTHEN

THE substance which was named pantothenic acid has now arrived at the status of an important vitamin. Since like other vitamins it is destined to be almost

¹ C. P. Rhoads, *Proc. Inst. Med. Chicago*, 13: 198, 1940.

² Gerson R. Biskind and Jerome Mark, *Bull. Johns Hopkins Hosp.*, 45: 212, 1939.

a household article, it seems desirable to have a shorter name for it.

The tendency to abbreviate a long word is almost irresistible. It has sometimes been convenient to use the initials p.a. to designate the substance, but these same initials are used by medical men to mean pernicious anemia, and by physiologists to designate pyruvic acid.

It is suggested that especially for popular and semi-popular use the term *pantothen* be used as a substitute or abbreviation for the longer name.

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WANTED—SEDIMENTARY GALENAS

As may be seen from the abstract of A. O. Nier's work (University of Minnesota) included in the mimeographed edition of the "Report of the Committee on the Measurement of Geologic Time" just issued, especially pages 58-59, there is some indication that the age even of a common ore mineral like galena can be obtained from the proportion of isotopes in it, that the primal lead is indicated by the Pb^{204} and that the younger lead has a little larger proportion of the other isotopes which may be produced by radioactive disintegration which must be going on during geologic time.¹

It will be noticed, however, in the results given on Table 2 that the galenas of Joplin, Missouri, have a relatively high proportion of the isotopes which may be of radiogenic origin. Just how this comes to be is a matter which needs further investigation, and while there are other matters of more importance at present, it would be well to get material ready for an investigation later. Galenas from other sedimentary occurrences, not only those in the three Missouri districts but in the Mississippi, or other sedimentary formations where the occurrence and geology is well known, would be desirable. If some of these occurred in connection with barite the facts should be noted.

Rarely, however, galena also occurs in the center of balls and septaria of siderite, clay iron stone, sometimes known as nigger head, and it might be possible to get valuable results from even two grams of such material. We hope that any such material will be kept for further scientific research and the Committee

on Measurement of Geologic Time will be glad to know about it.

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COLLECTION AND FILING OF SCIENTIFIC DATA

IN SCIENCE, issue of September 19, 1941, page 278, Alfred H. Taylor of the Experimental Research Laboratories, Burroughs Wellecome and Co., U. S. A., Tuckahoe, N. Y., suggests the collection and filing of data on absorption spectra at some central depository in order to make them easily available for all research workers. He points out how widely scattered the literature on absorption spectra is and how inconvenient it sometimes proves to obtain the data wanted even if they have been known for a long time. To avoid waste of time and money he proposes what may be called a sort of clearing-house outlining at the same time a working scheme for such an institution.

It may be of interest that in another field of science, human genetics, where the difficulties encountered are very much like those mentioned by Taylor, such a clearing-house dealing with genetical data in man has been set up by the Bureau of Human Heredity, 115 Gower Street, London, W. C. I., some years ago and has met with ever-growing success. The working methods of this institution are exactly like those described by Taylor (with the only exception that there is no charge for information) and have proved so efficient that, on request of many research workers, the Bureau of Human Heredity has resolved to make use of its methods for some special tasks—*e.g.*, a survey on constitutional factors in cancer.

For this latter part of its activities the Bureau of Human Heredity has kindly been given hospitality by the Genetics Laboratory, Ohio State University, so that the work is now carried on in close cooperation by both institutions. The collection of data, although of course somewhat hampered by the conditions of war in Europe, is growing rapidly, owing to the interest of scientists all over the world; services may be expected to be available for all those interested in this field by next summer.

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SCIENTIFIC BOOKS

PAPERS OF WADE HAMPTON FROST

Papers of Wade Hampton Frost, M.D.; A Contribution to Epidemiological Method. Edited by KENNETH F. MAXCY. viii + 628 pp. Illustrated. New York: Commonwealth Fund. \$3.00. 1941.

¹See also paper by Nier, Thompson and Murphey, *Physical Review*, July 15, 1941, Vol. 60, pp. 112-116.

RARE is the demand for republishing articles from professional and official periodicals and bulletins, and unusual the honoring of an author by assembling after his death the significant contributions he made in medical literature to contemporary fact, method and thought. We have in hand a volume, dignified and pleasing in form, edited by men of superior discern-