

ing Dr. King, Jules Korehien, national education director of the Federation of Architects, Engineers, Chemists and Technicians, discussed the mobilization of scientific personnel.

THE first Pan American Congress of Mining Engineering and Geology will be held in Santiago, Chile, during the first two weeks of January.

DR. GILBERT MURRAY, regius professor of Greek at the University of Oxford, president of the British Committee of Intellectual Cooperation, has addressed a letter to the *London Times* under date of October 1, which reads: "On reading the magnificent appeal issued to the more thoughtful part of mankind by member after member of the conference of the British Association, I wonder if I may be allowed to express the thanks of many great men, now unable to speak

for themselves, who during the last twenty years have worked with me, and half the time under my chairmanship, for the acceptance of exactly the same message. Professor Einstein was able to send a communication; Sir F. Kenyon and Señor Madariaga are with us; but Bergson, Lorenz, Destree and the beloved Mme. Curie are dead, Bialobrzski murdered, Herriot gagged, Huyzinga imprisoned; the names of others in Norway, Switzerland and other European countries it is safer not to speak. But I believe all would feel moved as I do on hearing at last the unmistakable voice of Great Britain uttering clearly that profession of faith for which we worked and appealed so long. My first impulse was almost to cry *Nunc Dimittis*; my second is to thank the British Association and its collaborators for the noble word, and to pray that in due time the deeds will follow."

DISCUSSION

WAR HYSTERIA IN CANADA

EARLY in September, 1940, two men rented a room in the home of Dr. Samuel Levine, research associate in geophysics at the University of Toronto, who has worked at Princeton, Pennsylvania and Cincinnati Universities in the United States and at the University of Cambridge in Great Britain and who is an authority on the forces controlling the stability of colloidal solutions. The men obtained permission to use a table in Dr. Levine's dining room for typing. Two weeks later, the police staged a midnight raid on the house and arrested the two roomers as Communists, also seizing a few pamphlets they found in the dining room. One of the arrested men, named Ehrlich, testified that these pamphlets were his property and not that of Dr. Levine. Nevertheless, the police two days later arrested Dr. Levine in his laboratory at the university for "possession of documents intended or likely to cause disaffection to His Majesty."

Dr. Levine was tried before a police magistrate and without a jury. His roomers testified that Dr. Levine knew nothing of their affairs, nor of the pamphlets. In spite of this testimony, the judge on October 10, 1940, sentenced Dr. Levine to six months' imprisonment. An appeal, heard on December 11, 1940, and again without a jury, was denied. At the appeal Professor Samuel Beatty, dean of the Faculty of Arts and head of the department of mathematics, and Professor E. F. Burton, head of the department of physics at the university, testified on Dr. Levine's behalf.

When three months of the sentence had been served, a request was made for remission of the sentence, supported by four leading professors at the university, all of whom had been Dr. Levine's teachers. These were Professor A. T. DeLury, retired dean of

the Arts Faculty; Professor J. L. Synge, head of the department of applied mathematics, and Professors Beatty and Burton. President H. J. Cody, of the university, and A. W. Roebuck, Member of Parliament for the district, also supported the request, which nevertheless was denied. Dr. Levine was released from the Ontario Reformatory at Guelph on May 15, 1941. He was immediately taken into custody by mounted police and sent to an internment camp, without being permitted to communicate with his family.

A determined struggle to obtain the release of her husband was then undertaken by Mrs. Levine. Editorials and articles on behalf of Dr. Levine appeared in many Canadian papers and he received the sympathetic support of many individuals in academic and public life. The American Association of Scientific Workers began to investigate the case following a request for aid by Mrs. Levine, and entered into correspondence with the Dominion Minister of Justice. According to the latter, Dr. Levine was interned on the Minister's orders, by virtue of powers granted under the Defence of Canada Act, "to prevent him from acting in a manner prejudicial to the public safety."

In spite of all protests, nearly three months elapsed before there was held the first hearing on the internment, and another month before the character hearing, both hearings being held "in camera." Finally still another month later, Dr. Levine was unconditionally released. Additional support was received at these hearings from Professor H. Eyring, of Princeton University, and from Dr. Levine's former colleagues at Cambridge. The importance of Dr. Levine's scientific work was stressed as an added reason for his release.

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.