

the laboratory sciences that satisfy the requirement. This group includes the following:

Clark University	University of Georgia
College of the City of Detroit	University of Idaho
Columbia University	University of Illinois
Indiana University	University of Minnesota
Johns Hopkins University	University of North Carolina
Leland Stanford University	University of Pennsylvania
Ohio University	University of Pittsburgh
Oregon State University	University of South Carolina
State University of New Mexico	West Virginia University

The second trend is represented by those institutions that require a certain amount of laboratory science but do not permit experimental psychology to satisfy this requirement. This group includes the following:

Carnegie Institute of Technology	University of California (Berkeley)
College of the City of New York	University of California (L.A.)
Cornell University	University of Chicago
Duke University	University of Cincinnati
Emory University	University of Colorado
George Peabody College	University of Delaware
Georgetown University	University of Florida
George Washington University (D. C.)	University of Kansas
Montana State University	University of Maryland
New York University	University of Missouri
North Dakota University	University of Nebraska
Northwestern University	University of New Hampshire
Ohio State University	University of Oklahoma
Princeton University	University of South Dakota
Rutgers College	University of Tennessee
State University of Nevada	University of Texas
Syracuse University	University of Vermont
Toledo University	University of Virginia
Tulane University of Louisiana	University of Wisconsin
University of Alabama	Vanderbilt University
University of Arizona	Washington University
University of Arkansas	Western Reserve University

The third trend is represented by those institutions that do not require any laboratory work for the A.B. degree. This group includes the following:

Brown University	University of Maine
Duquesne University	University of Michigan
Harvard University	University of Mississippi
Louisiana State University	University of Washington
University of Buffalo	University of Wyoming
University of Kentucky	Yale University
University of Louisville	

Summarizing the results of the questionnaire, we gather the following:

62 of the 75 institutions (82 per cent.) require a laboratory science for the A.B. degree.

18 of the institutions (29 per cent.) requiring a laboratory science include experimental psychology among the sciences that will satisfy this prerequisite for a degree.

13 institutions (17 per cent.) do not require any laboratory science for the A.B. degree.

44 institutions (58 per cent.) do not at present permit experimental psychology to satisfy the laboratory requirement for the A.B. degree.

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A PLIOCENE WATERHOLE IN WESTERN KANSAS

THIS fall our attention was called to the occurrence of mammal tracks in "Cretaceous chalk" in Graham County, Kansas. Investigation showed an interesting set of footprints which had been exposed by a washout of the spillway from a pasture pond. A thickness of fifteen to twenty feet of sand capped with soil had been washed away, exposing the bedrock with the tracks.

We have found an abundance of the tracks, including camel, rhinoceros, mastodon, one large carnivore track and a number of small tracks as yet unidentified. In places the tracks literally cover considerable areas of the rock.

The matrix enclosing the tracks is a yellowish chalky marl. It grades vertically into less marly chalk of Niobrara Cretaceous. In this, about five feet below the track horizon, one of the boys on the ranch had found fragments of a Cretaceous fish of the genus *Empo*. The rock is covered by a thick layer of almost unconsolidated sand which contains almost no pebbles. In the rock enclosing the tracks and apparently tramped into some of the tracks scattered hard-rock pebbles such as we find abundantly in the "mortar beds" are found. In the over-lying sand the rancher had found a fossil turtle, *Testudo orthopygia*.

The track assemblage indicates a Pliocene age. The rock is a Cretaceous chalk which had been exposed in Pliocene times and had been reworked under water with clay into a marl. The old water-hole floored with this marl preserved a sample of the tracks of at least a few of the types of mammals of that period.

Further study of the tracks and of the rock are being made and will be described at a later date.

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THE CASE OF DR. S. LEVINE

JUST to-day I have had an opportunity of reading the article "War Hysteria in Canada," page 461 of SCIENCE, November 14, 1941, and I desire to make a few comments.

At the outset I wish to deprecate very strongly the title of the article. If you were more intimately acquainted with Canadians you would probably realize that they are not given to hysteria.

With regard to the unfortunate experiences of Dr. Levine I may say that his case should be divided into two incidents, namely:

1. His trial, conviction, after an appeal, and his imprisonment on the charge "possession of documents intended or likely to cause disaffection to His Majesty."

2. His internment after release from prison.

Regarding his trial I have followed this case rather closely and have had access to the evidence given in court, and I have no hesitation in saying that, to my mind, there is positively no foundation for the suggestion which appears in this article that there was a "miscarriage of justice." Neither is there anything in the veiled suggestion that Dr. Levine suffered through not having the opportunity of trial by jury. I have just spoken to Dr. Levine's personal lawyer and he informs me that Dr. Levine was not discriminated against in any way as to trial by jury.

Regarding the second item, Dr. Levine's internment, the evidence in the hands of the police, upon which anybody is interned, is not made public. As a matter of routine Dr. Levine's case was reviewed by a commission dealing with several such cases; as a result of the recommendation of this commission Dr. Levine has been recently released.

In the article reference has been made to the evidence of myself and some of my colleagues who appeared on Dr. Levine's behalf at his appeal trial and before the internment commission. As far as I am concerned personally, and I think I may speak for the others, my evidence was in the nature of character evidence and an appraisal of Dr. Levine's academic attainments, together with the suggestion that Dr. Levine would not be dangerous if released. As to the actual facts of the case we were all quite ignorant.

I should also like to make public the position that Dr. Levine occupied at the time of his arrest. After graduating from the University of Toronto B.A. (1932), M.A. (1933), he had held fellowships in different universities in the United States and spent the academic years of 1937-1938 and 1938-1939 at the University of Cambridge, England. During all this time he was pursuing a problem which I first suggested to him the year he graduated at the University of Toronto.

Early in July, 1939, I had letters from two of his Cambridge professors asking me if I could provide for Dr. Levine for the year 1939-1940. In view of the disturbed state just before the war broke out it was realized that the work on which Dr. Levine was engaged could not be continued there. I had to reply that I had no money available to employ Dr. Levine but that I would keep him in mind. Some time in

August of that year there came to me from a private donor an offer of \$1,500 to pay the salary of a mathematical physicist to undertake some work in the field of geophysics. Although this was not the particular field in which Dr. Levine's work lay, up to that time, I was confident that he would be able to carry out the new work in geophysics and consequently offered to take him on for the year 1939-1940. He began this work about November 1st, 1939. In order that he might be added technically to the Department of Physics, he was given the title of Fellow in Geophysics, but his remuneration did not at any time come from the regular budget of the university. The actual problem on which he was working was completed before his arrest. As he had not completed the full year (12 months) for which the money was provided his employment was continued into the academic year 1940-1941.

It came to me as a bolt from the blue when he was arrested in September, 1940, on the above charge. There is a complete misunderstanding in the suggestion in your article that he has been discharged from the staff of the Department of Physics of the University of Toronto. You will easily understand that his arrest greatly dampened the generosity of the private donor who was providing for his upkeep. As a matter of fact Dr. Levine was paid his salary up to the end of October, 1940—that is, he received the full amount (\$1,500.00) donated for a full year's work, although he was arrested early in September.

There is only one other point that I wish to mention. A great deal is made in some of the articles written about this case that Dr. Levine's work in mathematical physics "contributes significantly to the success of the Canadian war effort in the international fight against Fascism." When I appeared on behalf of Dr. Levine when his appeal was being heard I was asked if his work was important for the war effort and my answer was that it might be looked upon as important only so far as all work in geophysics might enable us to discover new materials likely to be useful in the present war. An account of this work has been published in the scientific magazine, *Geophysics*, 6, April, 1941, page 180.

As a matter of fact Dr. Levine has no more moral claim on the University of Toronto than any other of the university's hundreds of graduates. The total number on the staff now working in the Department of Physics is seventy-six, practically all university graduates: of these only nineteen could be considered as having any claim to employment after the current year. Dr. Levine did not at any time belong to the permanent classification.

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