

expected at San Francisco in the summer, was sufficiently large, as the expedition was likely to last a couple of years. It was important to get a vessel of good speed and not necessarily one built for Polar ice, as ice conditions in the seas they would visit, for example, Ross Sea, were not particularly difficult.

NEW ZEALAND is suffering from a serious epidemic of infantile paralysis. All the schools have been closed since Christmas and juvenile travel is only allowed by a permit from the health officers. Over 800 cases of the disease have been reported since the disease broke out in December, with 127 deaths.

UNIVERSITY AND EDUCATIONAL NOTES

AN appraisal filed recently of the estate of Mrs. Anna R. Milton, who died February 15, 1924, shows that Harvard University, as the residuary legatee under the will, receives \$765,108. Mrs. Milton stated in her will that the will of her husband provided a trust fund of \$1,000,000 for her benefit during her life, and made Harvard the beneficiary upon her death.

PROFESSOR AND MRS. FRANK R. LILLIE have added \$30,000 to their recent gift of \$60,000 for the new laboratory of experimental zoology at the University of Chicago, construction of which has already begun.

THE State University of Iowa has established the rank of honorary associate which may be awarded to any full professor in a college who is not a candidate for a degree, but wishes to spend a year, a semester or a summer quarter at the university. This appointment carries with it the hospitality of the department with facilities for research, admission to advanced classes and exemption from all fees.

YALE UNIVERSITY announces the appointment of Professor Harold Clyde Bingham, of Wesleyan University, as research associate in the Institute of Psychology, and the appointment of four research assistants, as follows: Helen Heffron Roberts and Alvira A. Kirk, research assistants in anthropology, and Carleton F. Scofield and Donald K. Adams, research assistants in psychology. Dr. Bingham is professor of psychology at Wesleyan, and Miss Roberts and Mr. Scofield are now on appointment in the Institute. Miss Kirk comes to Yale University from the Department of Anthropology of the American Museum of Natural History, New York City, and Mr. Adams from the Psychological Laboratory at Harvard University.

DR. HERBERT FREUNDLICH, of the Kaiser Wilhelm-Institut for Physical and Electrical Chemistry, Ber-

lin, will remain at the University of Minnesota following the third National Colloid Symposium on June 17, 18 and 19, and will offer a special series of lectures during the first half of the summer session of the university. He will present a general survey of the field of colloids with especial emphasis on adsorption phenomena. Coupled with Dr. Freundlich's work will be a group of other offerings, including colloid laboratory work under Dr. L. H. Reyerson, a seminar in colloid chemistry, conducted by Dr. Freundlich, and a series of courses in the division of agricultural biochemistry. These will be: "The chemistry of wheat and wheat products," Dr. C. H. Bailey; "Flour laboratory methods," Dr. Bailey; "Phytochemistry," Dr. R. A. Gortner, and a series of research problems under Drs. Gortner, Bailey, Palmer and Willaman. In all twenty-three allied courses in chemistry, biochemistry and physics will be offered.

DISCUSSION AND CORRESPONDENCE

ON THE DECOMPOSITION OF H_2O_2

IN the August 22nd 1924 issue of *SCIENCE* there is an article by Dr. Norman E. Ditman in which he states that hydrogen peroxide can be decomposed by a single electrical conductor, one end of which dips in the peroxide while the other end dips into a test tube containing a solution of colloidal platinum. Such a wire does not complete an electric circuit and the results as reported are so contrary to expectation that the experiment was repeated in this laboratory as nearly as could be done from Dr. Ditman's description. Fresh colloidal platinum was made in distilled water, without any stabilizer, by the Bredig method, using a short Pt rod as the positive electrode and a piece of fine Pt wire as the negative electrode. This wire had a total length of about six inches, most of which served merely as a conductor. Only about one fourth inch at one end was allowed to enter the distilled water. It was along this short length that the arcing took place. This end of the wire will therefore be called for convenience the "arced end"—the other end will be called the "unarced end."

The following experiments were then tried:

1. The arced end of the fine Pt wire was put in the beaker containing the colloidal Pt, and the unarced end was put in H_2O_2 of approximately three per cent. strength. No oxygen was given off.

2. The wire was reversed. Bubbles of O_2 formed at once on the arced end of the wire. This effect was unaltered by lifting the unarced end out of the colloidal Pt solution. Arcing had evidently activated the end of the wire.

3. Some of the colloidal Pt was put into the H_2O_2 solution. The colloid was very dilute and the rate of decomposition of the H_2O_2 appeared to be very slow. Nevertheless, tiny bubbles could be seen rising from all parts of the liquid. If, now, the Pt wire was inserted (no connection being made with the beaker of colloidal Pt), large bubbles formed on it, and this was so, no matter whether it was the arced or the unarced end or even the middle of the wire which was lowered into the liquid. The same effect was found using a second piece of Pt which had been previously shown to be inactive. A piece of Pd, a piece of glass tubing and the wood of a piece of lead pencil were also tried with identical results. The formation of bubbles was so vigorous that if the Pt, Pd, glass and wood had not been shown to be, in themselves, inactive, it would have been easy to have concluded that they were more active than the colloidal Pt or the arced end of the Pt wire. The effect was as though considerable of the O_2 resulting from the decomposition was dissolved in the H_2O_2 solution and came out of solution on the surface of the various substances mentioned above.

In view of the unexpected nature of Dr. Ditman's results as given in his article, and in view of the experiments outlined above, it is to be hoped that he may soon publish the results of a repetition of his work in which great precautions are taken to prevent contamination of the H_2O_2 with any agent tending to decompose it. Even light rays should be excluded from the apparatus, and the temperature should be kept low in order to avoid the production of O_2 which may dissolve in the water. In the meantime perhaps we should hold in abeyance any of his conclusions as to "electrical phenomena," "vibrations" and "resonance" of enzymes, zymogens and antitoxines.

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TERMITES IN BUILDINGS

IN 1894, Dr. C. L. Marlatt, of the Federal Bureau of Entomology, advocated the only effective preventive or remedy against termites or "white ants" in their attacks on buildings and material stored therein. This specific is "insulation" of all untreated woodwork from contact with the ground; it can be accomplished by the use of stone or concrete foundations and lower flooring or the use of foundation timbers impregnated with coal tar creosote. Practically all the termites which damage buildings in the United States are of subterranean habit and if they can be kept from reaching woodwork from the ground they can not survive in the building. Also if present in a

building when all untreated wood is removed from contact with the ground, such as joists, wooden floors, sills, etc., even if the termites have penetrated to the third story of the building, they will die out. They have been cut off from their moisture supply in the ground, which is necessary for their life.

Recently the Bureau of Entomology has been advocating the modification of the building regulations of various cities so as to include a few simple rules to prevent attack by these insects. No floors, sills, beams, clapboard, etc., of untreated wood may be laid on or in the earth, and untreated beams must not be laid in concrete without at least one inch of concrete underneath and separating it from the earth. No lime mortar should be used in foundations or in cellar walls where they are in contact with the earth, since termites are able to penetrate lime mortar after some years' service. All brick work extending below the surface of the ground should be faced and capped with concrete at least one inch thick. These slight modifications of the building regulations of cities by city engineers would save much property, time and worry to householders.

The recommendation of the use of heat, steam, insecticides and fumigants against these subterranean termites is of no permanent value and is futile. If conditions in a building are unsuitable to termites they will leave; if they can be prevented from leaving or coming in again by shutting them off from the ground, nothing further need be done and indeed is only a waste of time and money.

Complete insulation of all untreated woodwork from the ground is the only effective method of preventing the ravages of termites in buildings in the United States.

T. E. SNYDER

U. S. BUREAU OF ENTOMOLOGY

EDITORIAL SERVICE

A STATEMENT of the kind of service the editors of the *Physical Review* have been attempting to render authors and readers may be of interest and perhaps call forth suggestions for modification or extension.

SERVICE TO AUTHORS

A manuscript as soon as received is sent to a referee who is competent to criticize the article from a technical scientific standpoint. He is asked to note any possible errors, parts that are not clear, parts that might better be omitted or condensed, etc., and also to give suggestions looking toward the improvement of the article in form. Usually another editor goes through it carefully, particularly from the point of view of form, noting suggestions as to change of English in pencil on the margin. If the