Chemistry, Massachusetts Institute of Technology.

The present investigation on the conductance of sodium iodide and ammonium iodide in isoamyl alcohol and of sodium iodide in propyl alcohol was undertaken for two purposes: primarily to determine whether in these solvents, somewhat similar in nature to water, salts conform to the mass-action law at very small concentrations; and secondarily, to test further the applicability of Kraus' empirical equation throughout the fairly wide range of concentration employed in the work.

Edwin Bidwell Wilson
Massachusetts Institute of Technology

SPECIAL ARTICLES

A NEW MITE FROM THE HAWAIIAN ISLANDS

Recently, while visiting the Hawaiian Islands, my attention was called to a Chinese Litchi (*Litchi chinensis* Sonn.), growing on the grounds of the United States Experiment Station at Honolulu, which was very seriously infested by an apparently new species of mite. The injury caused by this mite is of the familiar erinose type, being produced on the lower side of the leaf. In many instances practically the entire lower surface of a leaf was covered with a light brown erineum, but more often distinct patches of variable size were produced. Badly attacked leaves assumed the general characteristics of peach leaves infected by the leaf-curl fungus (*Exoascus deformans*).

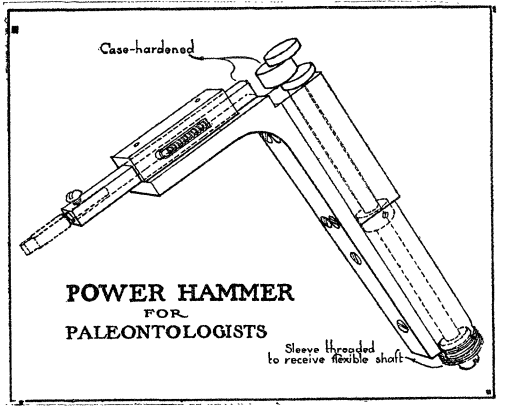
So far as could be learned, the infestation seemed to have been more or less sudden; at least, none was noticed until the injury had become very marked. The tree is considered very valuable and the infestation was so serious as to greatly endanger its life.

It was readily determined that the mite belonged to the genus *Eriophyes*. Specimens of infested leaves were referred to Dr. Nathan Banks through Dr. L. O. Howard, chief of the U. S. Bureau of Entomology. Dr. Banks indicates that the mite is a new species of *Eriophyes*. He also states that, so far as he can find, no mites have ever been recorded from the Litchi, and, further, that very few mites have been recorded from China. There is, therefore, a possibility that the Litchi, although imported from China, later became infested by a mite of Hawaiian origin.

P. J. O'Gara,
Chief in Charge
Department of Agricultural Investigations,
American Smelting and Refining Company,
Salt Lake City, Utah,
March 16, 1916

A POWER CHISEL FOR PALEONTOLOGIC LABORATORIES

The extremely slow, laborious and difficult task of separating fossils from the enclosing matrix, in the old manner, led W. W. Kelley, a senior student of marked mechanical ingenuity, to devise a power chisel, which has been installed in the geologic laboratories of Washington University. Thus far the device has proved so satisfactory to the members of the department that it is thought best to pass the information along to other toilers in the profession.



The chisel proper is extremely simple, consisting of an L-shaped frame in one arm of which is a shaft bearing a balanced eccentric head and, at right angles, in the other, a square plunger holding the chisel point. One blow during each revolution (1,800 a minute) is dealt by the protruding part of the eccentric striking the head of the plunger. A spring holds the plunger away from the eccentric when not in use. The eccentric shaft of the chisel is connected directly to the armature shaft of a one eighth horse-power motor by a

flexible driving shaft, similar to those of the dental engines.

In work upon the larger specimens the chisel frame is held in the hand, the flexible shaft permitting of considerable freedom in manipulation. In the case of smaller specimens, it has been found best to secure the chisel frame in a vise and to hold the specimen in the hand. Putting the chisel in operation consists solely in pressing it against the specimen in the first case, or the specimen against it in the second. Probably of more importance than the speed, is the control of the length of the stroke, and hence of the liability of injury to the specimen. The full stroke is only one fourth of an inch, and by pressing lightly the stroke can be reduced to an extremely small fraction of an inch.

WILLIAM C. MORSE
WASHINGTON UNIVERSITY

THE OHIO ACADEMY OF SCIENCE

IN accordance with the amendment of the constitution, adopted at the quarter-centennial anniversary in November, 1915, the twenty-sixth annual meeting of the Ohio Academy of Science was held at the Ohio State University, Columbus, Ohio, on Friday and Saturday, April 21 and 22, 1916. Fifty-five members were in attendance.

The presidential address by Professor George D. Hubbard, of Oberlin College, was on the subject "What Has the Future for Geologists?" On Friday evening a joint session of the academy with the Ohio College Association and other affiliated societies was addressed by Professor Charles H. Judd, of the University of Chicago, on "The More Complete Articulation of Higher Institutions with High Schools." On Saturday morning the academy adjourned for a symposium of the Ohio College Association, addressed by representatives of the various affiliated societies. The academy was represented by Professor Lewis G. Westgate, of Ohio Wesleyan University, who spoke on "The Relation of the College to Research."

The remaining scientific program was as follows:

ARCHEOLOGY

"Exploration of Tremper Mound," by W. C. Mills.

BOTANY

"A New Three-Salt Nutrient Solution for Sand and Water Cultures," by A. G. McCall.

"An Adjustment of the Sliding Microtome for Cutting Lignified Tissue," by Forest B. H. Brown.

"Notes on the Structure and Function of the Green Layer of the Bark of Woody Plants," by Forest B. H. Brown.

"The Distribution of Fungi in Porto Rico," by Bruce Fink.

"The Genus *Physcia* in Ohio," by Martha McGinniss, introduced by Bruce Fink.

"A Relative Score Method for Unmeasured Characters," by A. G. McCall.

"The Revegetation of the Katmai District of Alaska," by Robert F. Griggs.

"Decrease of Permeability with Age" (Preliminary Note), by H. M. Benedict.

"Methods of Spore Formation in the Zygnemales," by E. N. Transeau.

"Notes on the Germination of Tree Seeds," by William R. Lazenby.

"The Quince Leaf-Spot," by W. G. Stover.

"A Blade Blight of Corn," by W. G. Stover and W. N. Ankeny.

"The Occurrence of the *Volutella* Rot in Ohio," by Gustav A. Meckstroth.

"Observations on the Ontogeny of the Gall of *Pachypsylla mama* Riley," by B. W. Wells.

"Botanizing in Porto Rico," by Bruce Fink.

"Parthenogenesis in the Dandelion," by Paul B. Sears.

"The Educational Value of Wood Study," by A. B. Plowman.

"A New Method for Marking Slides," by Paul B. Sears.

"Certain Points in the Celloidin Method" (Demonstration), by A. B. Plowman.

ZOOLOGY

"Parallelism between the Cystid Agelacrinites (fossil) and the Holothurian *Psolus* (recent), with Demonstrations," by Stephen R. Williams.

"The Axial Rotation of Microorganisms and its Evolutionary Significance," by L. B. Walton.

"Notes on Ohio Tingitidæ," by Carl J. Drake.

"Insect Population of Grasslands," by Herbert Osborn.

"Genitalia of the Bedbug with special reference to a Unique Method of Copulation," by P. B. Wiltberger.

"The Origin of the Gasserian and Profundus Ganglia in *Rana*," by Ralph A. Knouff, introduced by F. L. Landacre.

"The Fusion of the Gasserian and Profundus Ganglia in *Plethedon*," by Katharine Okey, introduced by F. L. Landacre.