

The school will be operated from the headquarters of the association and will prepare directors and curators for museum service. At its inception there will be five art students who will travel to various museums of the country, studying the work of group building, mounting, case building and cataloging and the specialties required in museum supervision. The school will enroll only graduates of universities.

A GIFT of \$100,000 to the Engineering Foundation's research endowment fund by Edward Dean Adams, president of the Niagara Power Company, was announced at a meeting of the foundation on May 19, at the Union League Club. The gift of Mr. Adams, who was guest of honor at the meeting, will be added to the research endowment fund, which now totals \$650,000. His was the third large gift to that fund. The other two were \$500,000 by Ambrose Swasey, telescope manufacturer, of Cleveland, Ohio, and \$50,000 under the will of Henry R. Towne. The Engineering Foundation has set \$20,000,000 as the goal for its research endowment fund, which is to be used in promoting scientific research in engineering in the universities and industries of the United States. The foundation voted to allot \$30,000 for a three-year program of research in blast furnace slags at the University of Wisconsin and \$10,000 to Johns Hopkins University for two years of research in electrical insulation under the direction of Professor J. B. Whitehead.

UNIVERSITY AND EDUCATIONAL NOTES

DARTMOUTH COLLEGE has received from an anonymous donor \$1,000,000 to be used for the construction of a new library.

COMPLETION of the first year of the fifteen-year drive of the University of Pennsylvania for an endowment fund of \$45,650,000 has resulted in subscriptions amounting to \$7,500,000; subscriptions were received during the year from 10,868 persons, of whom 10,467 were former graduates or students.

GEORGE F. BAKER, New York banker, has given \$30,000 for use in the Baker laboratory of chemistry at Cornell University, which he gave to the university several years ago at a cost of more than \$1,500,000.

CLARENCE MACKAY, of New York, has given \$100,000 for the enlargement of the Mackay School of Mines at Reno, Nevada. The gift is in addition to a new science building Mr. Mackay already has promised to the institution.

DR. FREDERICK G. KEYES, director of the research laboratory at Massachusetts Institute of Technology, will join Brown University next September as consult-

ing professor in physics. He will go to the university one day a week and with Professor Albert De Forest Palmer have charge of the department of physics, from which Dr. Carl Barus will retire as head next month.

DR. COLLINS P. BLISS, professor of mechanical engineering at New York University, has been appointed associate dean of the college of engineering.

THE new chair of associate professor of geology established at the University of Tennessee last June has been filled by the appointment of Dr. George M. Hall, instructor of geology in the Johns Hopkins University.

DR. GRACE BERKLEY has been elected assistant professor of botany in De Pauw University.

DR. MARY WESTALL has been appointed assistant professor of botany in Agnes Scott College, Georgia.

DR. ARTHUR L. BLOOMFIELD, of the Johns Hopkins University, has been appointed professor of medicine at the Stanford University Medical School, the appointment to take effect at the beginning of the year 1926-27.

DISCUSSION AND CORRESPONDENCE

THE CASE OF *ASTACUS*, 1775, VS. *POTAMOBIUS*, 1819

OUR excuse for reopening this much discussed case of nomenclature is practical, not merely academic. In preparing a paper in which reference is made to *Crustacea*, the point has come to our attention that, while specialists in this group settled this case years ago, two of the most recent American text-books in zoology disagree in respect to it.

Pratt, 1916, "Manual of the Common Invertebrate Animals," p. 390, uses the generic name *Astacus* Fabr., 1775, for the crayfish. In Ward and Whipple, 1918, "Fresh-Water Biology," p. 846, Ortmann uses the generic name *Potamobius* Leach and states that, "This is the genus which includes the European crayfishes, frequently, but incorrectly, called *Astacus*."

Faxon, 1898, PUSNM, pp. 662-665, gives a detailed discussion of these names. We agree with Faxon's conclusions, but invite attention to the point that under the International Rules of Zoological Nomenclature the case is much clearer than is ordinarily assumed.

Astacus Fabr., 1775, 413, contained a number of species, including as number 2 *Astacus fluviatilis* Fabr., 1775, 413, with *Cancer astacus* Linn., 1758a, 631, as synonym. To establish the correct generic name for *Astacus fluviatilis*, we do not have to go beyond this reference; *Cancer astacus* Linn. is the type, by absolute tautonymy, of *Astacus* Fabricius. See Article 30d International Rules of Nomenclature.

In addition, Latreille, 1810, 422, definitely designated *Astacus fluviatilis* as type of *Astacus*.

Potamobius Leach in Samouelle, 1819, EuC, 95, was proposed as a new genus with *Potamobius fluviatilis*, syn. *Cancer astacus*, as monotype. Accordingly *Potamobius*, 1819, is an objective synonym of *Astacus*, 1775.

"*Astacus* Leach's MSS." in Samouelle, 1819, EuC, 95, is cited as if it were the publication of a new genus, monotype, *Astacus gammarus* Linn., syn. *Astacus marinus* Fabr., "the common lobster" of the London markets, from Scotland, Norway, European ocean. If this be interpreted as a new genus, the name is a dead homonym of *Astacus*, 1775; if it be interpreted as a division and restriction of *Astacus*, 1775, the elimination of *fluviatilis* syn. *astacus* is contrary to Article 30d of the International Rules.

All later references, together with the discussions as to the course adopted by Milne-Edwards, and others, are irrelevant under the International Rules.

This particular case is more than one of simple academic nomenclature. It involves the technical names of several animals which come into important consideration in connection with the subject of food poisoning and food inspection; and, however much systematists may differ in argument and opinion in respect to the names of animals discussed only in technical publications, it seems desirable that the technical names which eventually get into administrative work and even into law should be as uniform and unambiguous as possible.

Dr. Ortmann, after reading the foregoing discussion, writes us under date of February 4, 1926, that he concurs in the views expressed here.

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THE DECOMPOSITION OF CERTAIN TOXINS BY KNOWN ORGANISMS¹

SINCE the writer² reported that vanillin decomposing organisms do not decompose resorcinol, cumarin, quinoline, benzidine or caffein in dilute solution cultures it has seemed desirable to test several known organisms from the Parke Davis Laboratory and from the Laboratory of Public Health, for their ability to decompose such toxins as vanillin, cumarin, caffein and resorcinol in solution cultures.

Suitably modified Robbins' solution, containing vanillin, was prepared and inoculated in duplicate

¹ Published with the permission of the director of the Alabama Experiment Station.

² SCIENCE, 60, 390 (1924).

with pure cultures of the organisms listed below. After incubation at room temperature for about one month observations for the growth of the organisms and tests for the decomposition of the vanillin were made.

It was found (a) that *Bacillus Hartlebii*, *Bacillus cyanogenus*, *Bacillus carotovorus*, *Bacillus phaseoli*, and *Bacillus mycoides* failed to grow or to decompose the toxin; (b) that *Bacillus tumefaciens*, *Staphylococcus tetragenus*, *Bacillus megatherium*, *Bacillus aerogenes*, *Bacillus coli communis*, *Bacillus prodigiosus*, *Micrococcus tetragenus*, *Spirillum rubrum*, *Aspergillus fumigatus*, *Bacillus tracheophilus*, *Vibrio Metchnikovii*, *Vibrio tyrogenus*, and *Azotobacter chroococcum*, grew but did not decompose it; (c) while, on the other hand, *Pseudomonas pyocyaneus* and *Bacillus fluorescens liquifaciens* did decompose it.

It appears from these results that though the organisms multiplied in many cultures sufficiently to render the solution turbid yet there was decomposition of vanillin by two organisms only.

In case of cumarin, caffein and resorcinol, which were treated in the same way, equal care was taken that proper conditions, such as suitable substratum and correct reaction, were maintained, but in no case was there complete decomposition.

While the results are mostly negative they do in a large measure support the contention that the organisms which decompose toxins are specific.

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CAVALLINI'S "ASEXUAL CYCLE IN ARCELLA"

IN view of the existing confusion regarding the life histories of the rhizopods, especially the thecamoeba, it seems apropos to offer any available evidence that might help in clarifying this situation.

The two papers by Francesca Cavallini, viz. "The Asexual Cycle in *Centropyxis aculeata* and its Variability in Relation to Heredity and Environment" and "The Asexual Development of *Arcella vulgaris*," which appeared in the January issue of the *Journal of Experimental Zoology*, represent such painstaking efforts, and apparently the interpretations are so justly warranted that special attention should be called to their merits.

For the last six years I have spent most of my research time on the thecamoebae, being primarily interested in experiments other than those dealing with life histories: but during this period stages in the development of these forms have been encountered often and many observations and drawings have been made. What was interpreted to be developmental