

in *Nature* it was reported that Professor Fernbach, of the Pasteur Institute, was, after eighteen months of laborious work, able to produce a fermentation process for the production of fusel oil from any starchy material. The process is now so satisfactory that the higher alcohols can be obtained at a cost of not more than £30 per ton. Having produced isoprene cheaply, the next consideration was how to polymerize it and convert it into rubber satisfactorily. The discovery of the cheap method for preparing isoprene was first suggested by Dr. Matthews. In 1909 Mr. E. Halford Strange, of Messrs. Strange and Graham, technical research chemists, directed his organization of chemists, headed by Dr. Matthews, to the problem of the synthetic production of rubber. Dr. F. E. Matthews suggested one method for preparing isoprene in which acetone was one of the raw materials, and later on one in which fusel oil was the starting product. Professor Perkin was then asked to cooperate, and later on Sir William Ramsay joined the group as consultant. In July, 1910, Dr. Matthews left some metallic sodium in contact with isoprene, and on returning from his holidays in September found that the isoprene had turned into a solid mass of rubber. On further investigation it was found that sodium is a general polymerizing agent for this class of material. The first announcement of this discovery was made by Professor Carl Harries, of Germany, who had made the same discovery independently, about three months later.

PRESIDENT TAFT has just made considerable changes in the National Forests in Montana, Arizona, Nevada, Utah and California through presidential proclamations modifying the boundary lines. By these changes nearly 275,000 acres of land are eliminated from the forests, about 65,000 acres are added, and about 55,000 acres are transferred between two forests, while a new forest is created by the division of an old unit into two. The net result is to bring down the total gross area of the national forests to about 187,400,000 acres, of which nearly 27,000,000 acres are in Alaska. To a considerable extent, however, the reduc-

tions, so far as land actually owned by the government is concerned, are apparent rather than real, owing to heavy alienations in the tracts eliminated. Some 22,000,000 acres of the national forest gross area are not owned by the government. The high-water mark of the national forest gross area was reached in 1909, when the forest boundaries included over 194,000,000 acres. It was then realized, however, that in making the examinations on which the presidential proclamations creating the forests were based the work had been too rapid to insure in all cases the best boundaries. Sometimes land which should have been included was left out, while at other times land was taken in which was not best suited to forest purposes. Consequently a complete overhauling and rectification of the forest boundaries was planned, and has been going on ever since. By successive proclamations President Taft has eliminated nearly 11,000,000 acres, while he has added about 4,000,000 acres. In Montana, the new proclamations eliminate a total of 116,370 acres from six forests—the Custer, Absaroka, Blackfeet, Kootenai, Lewis and Clark and Flathead—while 14,640 acres are transferred from the Blackfeet to the Kootenai and 40,640 from the Kootenai to the Blackfeet, to facilitate administration. In Arizona, 106,540 acres are eliminated from the Coronado National Forest. In Nevada, 49,840 acres are eliminated from the Humboldt and 55,840 acres added, of which 12,800 acres are included in the new Ruby National Forest, composed principally of that part of the old Humboldt lying south of the Southern Pacific Railroad. In Utah, 1,340 acres are eliminated from the Sevier, while in California 8,680 acres are added to the Shasta and 480 acres to the Klamath.

UNIVERSITY AND EDUCATIONAL NEWS

THE income of the Henry O. and Mary A. F. Hotchkiss bequest, which will eventually revert to the Sheffield Scientific School of Yale University, is to be apportioned for the purpose of adding to the salaries of those who

are employed as the principal professors, instructors or lecturers having severally the charge of the following subjects: mathematics, English, physiological chemistry, electrical engineering, architecture, mining engineering, metallurgy, mechanical engineering, history and sociology and commercial geography. It is understood that the estate will be between \$500,000 and \$600,000.

THE sum of \$25,000 as the nucleus of an endowment fund to increase the salaries of professors has been willed to the University of Pennsylvania by Mrs. Elizabeth Wharton McKean.

BROWN UNIVERSITY has completed the collection of an additional endowment fund of \$1,000,000 from some twenty-five hundred donors. This is the third fund of this amount collected under the administration of President Faunce.

ANNOUNCEMENT of plans for new building operations at the University of Chicago, to involve approximately \$1,000,000, was made by President Judson at the eighty-third convocation. The new buildings, which are to be begun at once, and to be completed within two years, are: a building for the departments of geology and geography to cost about \$300,000; a gymnasium for women, to cost approximately the same sum, and a building to house the classical departments and their departmental libraries, to cost \$225,000. In addition, the widely known Marshall Field, on which take place the football and athletic contests, and which adjoins the great Bartlett Gymnasium, is to have grandstands built of cement; and is to be surrounded by a concrete wall.

THE Sloane Laboratory of Physics of Yale University was dedicated as part of the commencement exercises. A brief address was made by President Hadley. Messrs. Henry T. Sloane and Wm. B. Sloane, of New York City, who provided more than half a million dollars for the erection of the laboratory, were present.

PROFESSOR ARTHUR MICHAEL, formerly of Tufts College, and Professor Elmer P. Kohler, of Bryn Mawr College, have been appointed professors of chemistry in Harvard Univer-

sity. Both will direct research in organic chemistry, and Professor Kohler will also conduct the chief undergraduate course in this subject and assume the charge of the introductory course in chemistry intended for those who have not pursued the subject in school. Professor Arthur B. Lamb, whose appointment as assistant professor has already been announced, will give another elementary course in inorganic chemistry (for those who have passed the admission examination in a satisfactory manner) and also conduct advanced instruction in electrochemistry. A further addition to the department of chemistry at Harvard is that of Dr. Grinnell Jones, of the University of Illinois, who has been appointed instructor.

DR. CLARK A. HAMANN, professor of applied anatomy and clinical surgery, has been appointed dean of the medical department of Western Reserve University in succession to Dr. B. L. Millikan. Dr. Howard B. Haskins has been promoted to be associate professor of organic chemistry, and Dr. David Marine to be assistant professor of experimental medicine, and John S. Davidson to be associate in anatomy. Mr. Ralph J. Gilmore has been appointed instructor in biology.

AT Brown University, Dr. Alfred H. Jones, of Cornell University, has been appointed professor of philosophy to succeed Dr. Alexander Meiklejohn, elected to the presidency of Amherst College. Mr. Alfred C. Hawkins has been appointed instructor in geology. Promotions include: William H. Kenerson, associate professor of mechanical engineering, to become professor; Roland G. D. Richardson, assistant professor of pure mathematics, to become associate professor; James A. Hall, assistant in mechanical engineering, to become instructor.

AT the Worcester Polytechnic Institute Dr. Levi L. Conant, professor of mathematics, has been continued by the trustees as acting president. To relieve Professor Conant, Dr. Raymond K. Morley, now of the University of Illinois, has been appointed assistant professor of mathematics. John Harlan Nel-

son, of the Case School of Applied Science, has been appointed head of the department of applied mechanics, to fill the place vacant by the death of Professor E. L. Hancock; H. S. Ives has been promoted to be professor of railroad engineering; Dr. A. W. Hull, to be assistant professor of physics, and T. R. Briggs has been appointed instructor in chemistry.

WALTER FENNO DEARBORN, Ph.D. (Columbia), recently professor in the school of education of the University of Chicago, has been appointed assistant professor of education at Harvard University.

DR. HARLAN UPDEGRAFF, specialist in school administration, United States Bureau of Education, has been appointed professor of education and head of that department in Northwestern University.

MR. JAMES KNOX TAYLOR, supervising architect of the treasury department, has been elected professor of architecture in the Massachusetts Institute of Technology.

DR. R. F. BAUNEL, of the department of chemistry of Syracuse University, has accepted an appointment as associate professor of organic chemistry at Bryn Mawr.

THE board of trustees of Jefferson Medical College has elected to the chair of chemistry, made vacant by the resignation of Dr. James W. Holland, Professor Philip B. Hawk, of the University of Illinois.

MR. H. T. PLUMMER, assistant at the Oxford University Observatory, has been appointed Andrews professor of astronomy at Dublin University and astronomer royal of Ireland, as successor to Professor E. T. Whittaker, who has been called to Edinburgh University to the chair of mathematics vacant by the death of Professor Chrystal.

DISCUSSION AND CORRESPONDENCE

PRIORITY VS. NOMINA CONSERVANDA

WE all agree that nomenclature is a means, not an end, and should be of service alike to general or special workers in other lines as well as to the student of a restricted group.

We must also admit the human element, the personal equation, which is an important factor in applying the law of priority as well as in the selection of *nomina conservanda*—mistakes may be made in either case. It can hardly better matters to defer the correction of an error till some central representative body (usually with no special knowledge of the particular problem) gives assent to a change several years after the mistake has been discovered.

The men of science should stand for truth and freedom to proclaim the truth. An investigator should not be expected to hold an important contribution three to five years in order to secure the assent of any body to an obviously necessary change. Some scientific men may even desire to exercise a little personal discretion as to what names they will employ. Chaos does not necessarily follow unless we attempt to keep in mind the latest changes in all groups. Some appear to be taking priority too seriously; others propose new genera with inadequate descriptions or figures and, too frequently, in obscure, more or less irrelevant notes; while synonymy may be indicated with even less regard for the convenience of the investigator. These practises are certainly not commendable, since they may be serious stumbling blocks for subsequent workers. The writer believes in the strict application of the law of priority because it appears to be the only ultimately stable basis for nomenclature, and yet he practises or endeavors to practise conservatism in accepting changes in groups with which he is comparatively unfamiliar. A scientific man need not apologize for not using the very latest generic term. He may prefer to retain an open mind toward the innovation and adopt it with the appearance of a comprehensive memoir or a standard catalogue.

Let us see how the strict application of the law of priority works out in the gall midges or Itonidæ, much better known as the Cecidomyiidæ. *Itonida*, it may be recalled, was one of Meigen's names published in 1800, *Cecidomyia* being substituted therefor in 1803. In