

1. Kindly fill in this table:

'89-'90 '99-'00 '09-'10

Number of full professors

Number of associate "

Number of assistant "

Number of instructors

Number of assistants

Number of students

2. *a* Have you formulated any basis of requirements for eligibility to promotion from instructorship to assistant professorship?

b What would you consider suitable qualifications of age, training, scholarship, teaching ability, experience, etc.?

c Do you consider the present requirements for the position of assistant professor to be more or less exacting than they were twenty years ago?

3. *a* What are the minimum, maximum and average salaries paid assistant professors of your staff this year?

b What were these salaries in 1889-1890?

c From the point of view of the value of their services to the institution, what would you consider a proper ratio between the average salaries of assistant professors and of full professors?

4. *a* Do you recognize two general classes of assistant professors, temporary and permanent; that is, those who may reasonably look forward to promotion and those who, for one reason or another, may not?

b If conditions tend to form a permanent class of assistant professors, are present ruling salaries adequate for efficient life-service in this rank?

c What suggestions would you make in regard to meeting the problem of a permanent class of assistant professors?

d Do you grade assistant professors' salaries at all with respect to length of service?

e What do you consider essential qualifications for eligibility to promotion from assistant professorship to the rank above?

f From the point of view of the administration, should length of service constitute any claim for promotion?

g How long has your senior assistant professor served in this rank?

h On the average, what percentage of assistant professors are promoted by you each year?

i Are promotions as rapid or as general as the highest efficiency of the institution demands?

j If not, what do you consider the chief causes of delay?

5. *a* Are your assistant professors members of the legislating bodies, faculty, council, senate, etc.?

b Have they a voice in departmental matters?

c Are they on the same footing as full professors in respect to appointment to administrative and academic committees which formulate, control or direct educational policies?

d In respect to appointment as executive heads of departments?

e Do you consider it to be advisable for the younger men of an institution to take an active part in forming and executing its policies? Why?

f As a matter of the highest efficiency of the institution, do you consider it desirable to have departments conducted on a democratic or autocratic basis?

6. Have you any suggestions to make concerning the problem of the assistant professorship, looking toward higher individual or institutional efficiency?

7. Are you willing to have your name attached to quotations from these answers?

SCIENTIFIC NOTES AND NEWS

MR. ALEXANDER AGASSIZ died on March 28, on the steamship *Adriatic*.

SIR ERNEST SHACKLETON gave an address on his Antarctic explorations before the National Geographic Society on March 26, and was presented with the gold medal of the society by President Taft. On March 28 he addressed the American Geographical Society in New York City and received its gold medal.

THE date for the delivery of the Romanes lecture at Oxford University by Mr. Roosevelt has been fixed for Wednesday, May 18.

At the annual meeting of the Institution of Mining and Metallurgy in London, on March 17, the following awards were presented: the gold medal of the institution to Professor William Gowland, the "Consolidated Gold Fields of South Africa," gold medal to Mr. W. A. Caldecott and the premium to Mr. C. O. Bannister and Mr. W. N. Stanley.

IN a convocation at Oxford on March 15 a decree was passed unanimously, on the motion of Professor Elliott, conferring the title of professor emeritus on Edward Burnett Tylor, M.A., Hon. D.C.L., honorary fellow of Balliol College, who on December 31 last resigned the office of professor and reader in anthropology after a tenure of twenty-six years.

DR. ALEXANDER C. ABBOTT, of the University of Pennsylvania, has been selected as a delegate to the International Congress of Hygiene and Medicine, which meets in Buenos Ayres, Argentine Republic, next month.

DR. E. E. SOUTHARD, of the Harvard Medical School, has been appointed by President W. C. Gorgas a member of the council on medical education of the American Medical Association, to fill the unexpired term of Dr. W. T. Councilman.

At the annual meeting of the Ray Society held in London on March 10, Lord Avebury, F.R.S., was reelected president; Dr. S. F. Harmer, F.R.S., was elected a vice-president; Mr. F. DuCane Godman, F.R.S., was reelected treasurer, and Mr. John Hopkinson was elected secretary.

DR. SAMBON has been sent to Italy by the Pellagra Investigation Committee. Captain Siler, U. S. A., has been officially welcomed as a member of the field commission, and two assistants, Messrs. Baldini and Amoruso, have been appointed.

DR. HENRY S. PRATT, professor of zoology at Haverford College, will spend next year in foreign zoological laboratories.

It is reported that Captain Amundsen has modified his plans to the extent of postponing his departure from Norway till June of this year, and his final passage of Bering Strait till August, 1911, devoting most of the intervening period to oceanographical research in the South Atlantic during the outward voyage. He also proposes to carry out extensive investigations of the upper atmosphere during the drift across the Polar basin.

DR. MAURICE VEJUX TYRODE, faculty instructor in pharmacology in the Harvard

Medical School, has presented his resignation to take effect on September 1, 1910.

PROFESSOR LEONARD P. KINNICUTT, of the department of chemistry of the Worcester Polytechnic Institute, on February 18, gave a talk to the students of Union College and the Engineering and Chemical Societies of Schenectady on the "Bacterial Methods of Sewage Disposal."

PROFESSOR G. H. PARKER, of Harvard University, lectured on March 4, before the Buffalo Society of Natural History on "The Structure and Origin of Coral Islands."

MR. CYRUS C. ADAMS, of the American Geographical Society, gave a lecture on "Arctic Exploration," before the geological department of Colgate University, on March 21.

THERE was on March 25 and 26 at the State University of Iowa a joint meeting of the Western Philosophical Association, the North Central Section of the American Psychological Association and the Teachers of Psychology in Iowa. The address of the president of the Western Philosophical Association, Professor Carl E. Seashore, was on the "Rôle of Play in Religion."

At the annual general meeting of the Society of Dyers and Colorists held at Manchester, on March 18, the retiring president, Professor R. Meldola, F.R.S., delivered an address on "Tinctorial Chemistry—Ancient and Modern." Sir Frederick Cawley has been elected to the presidency.

At the annual meeting of the Chemical Society, London, on March 18, the president, Professor Harold B. Dickson, F.R.S., made an address on "The Union of Hydrogen and Oxygen in Flame."

THE fourth annual meeting of the British Science Guild was held at the Mansion House, London, on March 18, under the presidency of the Lord Mayor. Addresses were delivered by the Right Hon. R. B. Haldane, F.R.S., and others.

THE seventieth birthday of Ernst Abbe, who died five years ago, has been celebrated at Jena, where it is planned to erect a monument

in honor of his contributions to optical science and his foundation at the university.

THE *Journal* of the American Medical Association states that the famous ophthalmologist, Professor Jaeger von Jaxthal, who died in 1884, has been honored by the erection of a life-sized statue in the hall of the University of Vienna. Professor Fuchs delivered the commemorative address. Jaeger was the son of a famous ophthalmologist: was the grandson, on his mother's side, of the famous ophthalmologist Beer, and was married to the daughter of Arlt, also an eminent ophthalmologist.

DR. WHARTON SINCLAIR, an eminent neurologist, a trustee of the University of Pennsylvania, died at Philadelphia on March 15.

HENRY AUGUSTUS TORREY, assistant professor of chemistry at Harvard University and known for his work in organic chemistry, died at Cambridge, on March 26, at the age of thirty-eight years.

DR. H. LANDOLT, professor of chemistry at the universities of Berlin and Bonn, eminent for his contributions to physical chemistry, died on March 14 at the age of seventy-eight years.

PROFESSOR K. J. ANGSTRÖM, professor of physics in the University of Upsala, died on March 4 at the age of fifty-three years.

DR. C. PHILIPPI, professor of geology at Jena, has died in Egypt.

M. YOUNG, professor of mathematics at Paris, has died at the age of eighty-one years.

THERE will be a civil service examination in New York State on April 23, to fill various positions, including that of medical superintendent of Letchworth Village, the new state institution for the feeble-minded and epileptic. The salary of this position is \$4,500 with maintenance for the superintendent and his family.

KING ALBERT of Belgium will give \$200,000 for investigations into the nature and prevention of sleeping sickness. He will also give \$100,000 for hospitals for natives of the Congo.

CARRIMBOY EBRAHIM has given to the Bombay government a sum of \$150,000 for research and the provision of scholarships to science students of the Mussulman faith.

THE seventh International Congress of Criminal Anthropology, which was to have been held at Cologne in August next, has been postponed till October, 1911.

THE third International Congress of School Hygiene will be held at Paris from August 2 to 7, under the honorary presidency of the minister of public instruction. The subjects selected for discussion at the general meetings are: "Physical examinations in schools"; "Sexual education and school physicians." The congress will further meet in eleven sections for the discussion of various topics in school hygiene. Especial reductions are given by the railways and steamships, and visits to schools and other excursions have been organized. The circular of information further says: "Nothing will be spared to make the stay in Paris easy to the congressists." The secretary of the congress is Dr. Dufestel, 10 Boulevard Magenta, Paris.

At the regular weekly meetings of the University of Colorado Scientific Society the following scientific addresses have been given during the months of December, January, February and March: "Liquid Air and Low Temperature Phenomena," Professor Walter Runge and Mr. Harry A. Curtis; "Scientific Stories," Professor S. Epstein; "Some Recent University Expeditions with special reference to Northwestern Colorado," Professor Junius Henderson; "The Electrolytic Determination of Metals, using Rotating Anode," Mr. Harry A. Curtis; "Relation between Climate and Crops in Colorado with special reference to Unsolved Problems," Mr. Wilfred W. Robbins; "The British Association in South Africa," Professor Henry Carhart; "Tree Planting for Colorado," Mr. D. M. Andrews; "Mysticism and Modern Psychology," Professor V. A. C. Henmon; "Real Color Photography Direct from Nature," Mr. Stanley McGinnis.

THE deans of the colleges of liberal arts of the state universities of the middle west were

in session at the University of Illinois on March 23 and 24. Those in attendance and the papers that they read at this conference were: Dean Davis, of Nebraska, "Incentives to Scholarships"; Dean Jones, of Missouri, "Systems of Grading"; Dean Hoffman, of Indiana, "What can be done for the Freshmen"; Dean Townsend, of Illinois, "Faculty Advisers"; Dean Reed, of Michigan, "What should be done with Large Classes"; Dean Downey, of Minnesota, "Group Requirements for the A.B. Degree"; Dean Greene, of Illinois, "The Future of the A.B. Degree"; Dean Templin, of Kansas, "The College and the Professional Schools"; Dean Birge, of Wisconsin, "The Building of a Faculty." Assistant Deans Rawles, of Indiana and Meyer, of Illinois, were also in attendance.

UNIVERSITY AND EDUCATIONAL NEWS

HAVERFORD COLLEGE has completed the collection of a fund for pensions amounting to about \$150,000.

SIR FRANCIS GALTON has made a further donation of £500 for the maintenance of the Francis Galton Laboratory for the Study of National Eugenics in the University of London during the year 1911-12.

VIVIAN A. C. HENMON, A.B. (Bethany), Ph.D. (Columbia), now professor in the University of Colorado and dean, has been elected associate professor of educational psychology in the University of Wisconsin.

R. M. OGDEN, A.B. (Cornell), Ph.D. (Würzburg), has been promoted to a professorship of philosophy and psychology in the University of Tennessee.

DR. A. G. G. RICHARDSON has been elected professor of veterinary medicine of the Georgia State College of Agriculture. Dr. Richardson was in the United States Bureau of Animal Industry for a number of years.

DR. A. O. SHAKLEE, assistant in physiology and pharmacology of the Rockefeller Institute, has accepted the position of associate professor of pharmacology in the Philippine Medical School, Manila. Mr. Elbert Clark, associate

in anatomy in the University of Chicago and Rush Medical College, has been appointed assistant professor of anatomy at Manila.

PROFESSOR WILLIAM MOORE, of Cornell University, has received an appointment to a chair in the faculty of the British Agricultural College in the Transvaal.

SIR ALFRED KEOGH, K.C.B., who has been elected rector of the Imperial College of Science and Technology, London, retired last year from the post of director-general of the Army Medical Service.

DISCUSSION AND CORRESPONDENCE

FRACASTORIUS, ATHANASIUS KIRCHER AND THE GERM THEORY OF DISEASE

IN SCIENCE for February 18, Dr. William A. Riley gives a clear and interesting account of the relation of Athanasius Kircher to the germ theory of disease. In connection with this paper it may be of moment to note that, as Osler has pointed out,¹ the true author of the germ theory is neither Kircher nor Hieronymus Mercurialis, but Fracastorius, a Veronese physician of the fifteenth century, whose chief title to fame has been hitherto that "most popular" of medical poems, if least savory in theme, "Syphilis, sive morbus gallicus" (1530). Geronimo Fracastorio, born in 1484, studied medicine at Padua, led a tranquil, easy life as physician and poet in the countryside near the Lago di Garda, and died in 1553. His work "De contagione et contagiosis morbis et curatione," published at Venice in 1546, contains the first scientific statement of the true nature of contagion, of infection, of disease germs and the modes of transmission of infectious diseases. The latter he divides into (1) diseases infecting by immediate contact (true contagions), (2) diseases infecting through intermediate agents like fomites, (3) diseases infecting at a distance or through the air, of which class he instances phthisis, the pestilential fevers, a certain kind of ophthalmia (conjunctivitis),

¹ *Proceedings of the Charaka Club*, New York, 1906, II., 8-11.