

her death she was engaged in studies directed more especially to this difficult phase of gametogenesis.

She discovered in the Muscidae that the homologous chromosomes lie side by side in each spermatogonial and oogonial division, as well as before synapsis. Even in somatic division a similar pairing was found. In *Ceuthophilus* one to three supernumerary chromosomes were discovered, whose behavior in rest and in growth stages indicated, she thought, their probable relationship to the sex chromosomes (1912). Previously, she has found that the presence of supernumerary chromosomes in *Diabrotica* led to a variable number (with fixed limits however) of chromosomes in different individuals of the same species.

In the regenerative processes in the hydroid, *Tubularia*, Miss Stevens found that the old tissues become remodeled into the new without undergoing any retrogressive changes, and a similar condition was found in Planarians. In *Sagitta* the true oviduct, previously overlooked, was described and its development, and that of the ovary also, were thoroughly studied.

Some interesting facts in regard to the color of the parthenogenetic and sexual forms of Aphids were recorded, but the study of the inheritance of these colors was not brought to completion, although certain possibilities were indicated. Miss Stevens's experimental work was much less extensive. It included studies on the regeneration of hydroids and planarians. She performed the delicate operation of separating the centrosome from the rest of the karyokinetic figure with the eggs of the sea-urchin. The non-nucleated piece, with a centrosome but without a nucleus, was found not to divide further, confirming Boveri's conclusion that the centrosome alone is unable to bring about cell division.

Miss Stevens's work is characterized by its precision, and by a caution that seldom ventures far from the immediate observation. Her contributions are models of brevity—a brevity amounting at times almost to meagerness. Empirically productive, philosophically

she was careful to a degree that makes her work appear at times wanting in that sort of inspiration that utilizes the plain fact of discovery for wider vision. She was a trained expert in the modern sense—in the sense in which biology has ceased to be a playground for the amateur and a plaything for the mystic. Her single-mindedness and devotion, combined with keen powers of observation; her thoughtfulness and patience, united to a well-balanced judgment, accounts, in part, for her remarkable accomplishment.

T. H. MORGAN

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THE SCHOOL OF JOURNALISM OF  
COLUMBIA UNIVERSITY

TALCOTT WILLIAMS, director of the School of Journalism in Columbia University on the Pulitzer Foundation at the formal opening of the school at Earl Hall, September 30, spoke in substance as follows:

The School of Journalism opens, within a year of the death of Joseph Pulitzer whose endowment rendered this training for the newspaper man possible, with about a hundred students. They represent 21 countries and states, including China and New Zealand. Less than half are from New York state. In the first year one half are men who have had newspaper experience and all these left wage-earning positions to enter the school. One fifth of those in the school hold college degrees, a proportion far larger than when law and medical schools first opened. Of the 100 pupils entering, nine are women, a proportion of women less than that which exists in journalism, taking all newspapers and periodicals. Of the teaching force, 24 in number, 8 or one third have had practical experience in journalism and four have given nearly all their active lives to this calling.

In America great changes are worked by wide discussion. The first fruits of the school are that before it opened, the newspaper discussion for six months past, jointly due to its great endowment and the action of Columbia University in accepting it, had proved public conviction of the need of training for newspaper men and the demand and

support of the newspaper press, as a whole, for this professional preparation. This public verdict has quickened the interest, both of the public and the universities in this field. The question is no longer, as it was half a year ago, whether journalists shall be trained, but how they shall be trained so as to become efficient journalists better able to serve the public.

Under the foundation men of experience, ability and maturity are admitted to the school without an examination and after two years of adequate work are eligible to the degree offered by the university on the completion of the course. This opportunity to gain a college degree without the usual requirements for matriculation has attracted a large number of applicants, but they have been rigorously sifted, none accepted unless they showed a special capacity for journalism, and 17 have been admitted.

The training of the School of Journalism in Columbia University through its four years' course divides itself between studies on history, law, government, party organization, economics, unions, trusts and literature, training in reporting and training in writing. The first two years are devoted to the fundamental studies whose knowledge is necessary to the journalist in his work. Men intending to be journalists who have not had a college education are strongly advised to take these two years, if they are unable to take the full course. They are crowded with the studies which will aid a man's future work in journalism. These studies are immediate and deal with the issues and events of to-day. The entire course is made up after consultation with and the approval of a group of the ablest journalists in the country.

Nearly one third of the time in the course is given to training in writing. The students will do nearly as much writing each week as the average man in a newspaper office. This work will be rigorously corrected and required to be punctual as on a newspaper and will be done under a time limit, as in service condition. Training in writing in the school looks to accuracy, presentation and a vivid style.

In this training, the customary place in college "English" of "themes" and subjects, created for the occasion, is laid aside and the subjects on which men write spring either from their studies or from their work as reporters. Political science at the opening of the present year, in the first-year class, is devoted to the presidential election. In the second year, economics will be studied in the usual beginning course; but weekly, the pupils will write under direction a "business article" reviewing the business and financial week, such as many newspapers publish Saturday, Sunday or Monday. History will furnish subjects cast in newspaper form in the shape of despatches from historic battlefields, reports of historic events and estimates of public men and measures, treated in the editorial spirit. Throughout all the studies this plan will be adopted and both science and literature will be used to supply subjects training men in treatment and presentation.

The news of New York will be employed in the last two years to train men in reporting, to school them in writing and to acquaint them with the life of a great city. Trials, the visit of the battleships, the election, where the returns will be handled, large events and small will be used as assignments. The manifold copy ("tissue") furnished newspapers will be employed in editing copy and in building head lines. The presidential campaign will furnish a text for editorial writing, new plays will be the subject of notices, the exhibition of the Academy of Design of art criticism and new books of book reviewing.

When the women who have now entered for the first year reach the third and fourth year in this course, those who desire to prepare for the woman's page will be given the opportunity in connection with the School of Household Arts in Columbia University. Already students in the fourth year in the school are selecting studies in sociology intended to lead to special fields of writing, but of all students reporting is required, as the basis of the newspaper man's training.

This combination of exact study in the structure of the state and its action in his-

tory, administration, party organization and economics, combined with accurate reporting and graphic writing has not yet been attempted on the same scale and under such favorable conditions. It is planned by newspaper men, it is taught by newspaper men, and it reproduces newspaper conditions in order to train the newspaper man.

#### BRITISH ASSOCIATION GRANTS FOR RESEARCH

At the Dundee meeting of the British Association grants for research amounting to over \$5,000 were made as follows:

Professor H. H. Turner, seismological observations, £60; Dr. W. N. Shaw, upper atmosphere, £50; Sir W. Ramsay, grant to the International Commission on Physical and Chemical Constants, £40; Professor M. J. M. Hill, tabulation of Bessel functions, £30; Dr. W. H. Perkin, study of hydro-aromatic substances, £20; Professor H. E. Armstrong, dynamic isomerism, £30; Professor F. S. Kipping, transformation of aromatic nitroamines, £20; A. D. Hall, plant enzymes, £30; R. H. Tiddeman, erratic blocks, £5; Professor W. W. Watts, igneous and associated sedimentary rocks of Glensaul, £10; Professor P. F. Kendall, list of characteristic fossils, £5; Dr. J. Horne, Old Red Sandstone of Dura Den, £75; Dr. A. Strachan, Ramsay Island, Pembroke, £10; Professor Grenville Cole, Old Red Sandstone of Kiltorean, £15; Professor S. J. Hickson, table at the Zoological Station at Naples, £30; Dr. A. E. Shipley, Belmullet Whaling Station, £15; Dr. Chalmers Mitchell, nomenclator animalium genera et subgenera, £100; Sir W. H. Preece, gaseous explosions, £80; Dr. R. Munro, Glastonbury Lake Village, £5; C. H. Read, age of stone circles, £2; Dr. R. Munro, artificial islands in Highland lochs, £5; Professor G. Elliot Smith, physical character of ancient Egyptians, £34; Professor A. Thomson, anthropometric investigations in British Isles, £5; Professor W. Ridgeway, Roman sites in Britain, £15; Professor W. Ridgeway, excavations in Macedonia, £30; E. S. Hartland, Hausa manuscripts, £20; Professor E. A. Schäfer, the ductless glands, £40; Professor S. J. Hickson, table at the Zoological Station at Naples, £20; Professor J. S. Macdonald, calorimetric observations, £45; Professor Starling, oxyhemoglobin, £15; Professor F. Gotch, mammalian heart, £20; Dr. D. H. Scott, structure of fossil plants, £15; Professor A. C. Seward, Jurassic

flora of Yorkshire, £15; Professor F. Keeble, flora of peat of Kennet Valley, £15; A. G. Tansley, vegetation of Ditcham Park, £45; Professor J. J. Findlay, mental and physical factors, £20; Dr. G. A. Auden, influence of school books on eyesight, £15; Sir H. Miers, scholarships, etc., held by university students, £5.

#### SCIENTIFIC NOTES AND NEWS

Dr. Lewis Boss, director of the Dudley Observatory, Albany, since 1875, and director of the department of meridian astronomy of the Carnegie Institution, died on October 5, aged sixty-six years.

Professor Morris Loeb, the distinguished chemist of New York City, died on October 8, aged forty-nine years.

The Huxley Lecture will be delivered at Charing Cross Hospital Medical College on October 31 by Dr. Simon Flexner, of the New York Rockefeller Institute. The subject he has chosen is "Recent Advances in Science in Relation to Practical Medicine." Previous lecturers have been Professor Virchow, Lord Lister, Professor Welch, Professor Pavlov, Sir Patrick Manson, Sir William Macewen and Dr. F. W. Mott.

Professor Mary W. Whitney, director of the Vassar College Observatory since 1888, retires on a pension of the Carnegie Foundation as professor emeritus of astronomy.

Professor H. J. Wheeler, former acting president of the Rhode Island State College, at Kingston, R. I., and for eleven years director of the government agricultural experiment station at that institution, has tendered his resignation.

Dr. M. W. Haskell, professor of mathematics in the University of California, has received a half-year's leave of absence, which he is spending abroad.

Dr. David H. Tennent, professor of biology at Bryn Mawr College, has returned after a year's leave of absence spent partly in the Bahama Islands and partly at Naples.

Dr. Frederick H. Getman, associate in physical chemistry at Bryn Mawr College, has