

Dr. Folsom was born at Cambridge, Mass., on September 2, 1871. He received the degree of bachelor of science in 1895 and that of doctor of science in 1899 from Harvard University. For one year (1899-1900) he was professor of natural science at Antioch College, Yellow Springs, Ohio. In 1900 he went to the University of Illinois as instructor in entomology. He was associate in entomology from 1906 to 1908 and assistant professor from 1908 to 1923. He came to the Bureau of Entomology in 1925 as associate entomologist. During his entire service in this bureau he was located at the Tallulah, La., laboratory of the Division of Cotton Insect Investigations.

Dr. Folsom was interested in many phases of entomology and his publications include papers on the anatomy, physiology, embryology and ecology of insects. He had an international reputation as an authority on Collembola and Thysanura and published numerous systematic papers on these groups. Much of his earlier economic work was with alfalfa insects. During recent years his economic studies have been devoted to cotton insects. His text-book, "Entomology with Special Reference to Its Ecological Aspects," has been widely used during the past twenty-five years. The fourth revision, published in 1934, was revised by Professor R. A. Wardle, and appeared under the joint authorship of Folsom and Wardle.

Dr. Folsom was a fellow of the American Association for the Advancement of Science and of the Entomological Society of America. He was president of the latter association during 1931. He was a member of the American Association of Economic Entomologists, serving as vice-president during 1932, being the chairman of the Cotton States branch. He was also a member of the Ecological Society of America and of the Cambridge Entomological Club, serving as president of the latter organization in 1900. Many of the well-known entomologists of the United States were among his students at the University of Illinois.

A. S. H.

RECENT DEATHS

DR. HENRY BENJAMIN HEDRICK, until his retirement in 1932 chief ballistician at the Aberdeen Proving Grounds of the Army Ordnance Department, previously astronomer at the U. S. Naval Observatory and at Yale University and mathematician of the Department of Terrestrial Magnetism at the Carnegie Institution of Washington, died on October 7 at the age of seventy-one years.

JOHN ENGLISH MCWHORTER, assistant professor of surgery at the Columbia Medical School, died on September 19 while at work in the laboratory of the Englewood, N. J., Hospital, of which he was consulting pathologist. He was sixty-one years old.

THE sudden death is reported of M. Camille Sauvageau, correspondent in the section of botany of the Paris Academy of Sciences.

MISS CORNELIA CLARKE, nature photographer, died at Grinnell, Iowa, on September 29.

A CORRESPONDENT writes: "Dr. Elba Emanuel Watson, an instructor at Michigan State College, died suddenly on September 27 at the age of sixty-five years. He graduated from the University of Michigan and taught German for many years in a high school in Greater New York. He returned to the University of Michigan as a student in botany and received his M.S. in that subject in 1918 and was an assistant for a year. He was at the New York Botanical Garden for a year and an instructor at Rutgers College for a year. He entered the Graduate School of Michigan State College in 1922 and completed a monograph of the genus *Helianthus* as a Ph.D. thesis in 1926. Since that time he has been an instructor (in German) at that institution although maintaining his interest in the genus *Helianthus*."

SCIENTIFIC EVENTS

PLANT BREEDING EXPERIMENTS IN SWEDEN

THE agricultural correspondent of the London *Times* gives an account of the celebration of the jubilee of the Svalöf Plant Breeding Station in Sweden. Many experts concerned with this branch of science from different countries visited Svalöf for the occasion. The Crown Prince of Sweden and the Prime Minister were among the guests, demonstrating the high value that Sweden sets on the work being done at Svalöf.

The correspondent writes:

In the development of her commercial life Sweden has

contrived to keep a healthy balance between urban industry and farming. A productive and prosperous agriculture is recognized as an asset of first importance to the nation.

We know some of the Svalöf varieties in England, such as Victory and Star oats, Swedish Iron and Steel wheats, and Weibulls Standard wheat bred at Weibullsholm. There are other new varieties in the making at Svalöf which may prove useful on highly farmed land in Britain. In Skåne, the southernmost province, where most of the wheat is grown, the level of farming is high, comparing well with East Anglia and the Lothians.

When cross-breeding work on winter wheat was started the direct purpose was to combine the high yielding power

of the English Squarehead wheat with the winter hardiness of the old Swedish strains. Thanks to the varieties bred at Svalöf, giving an increased yield of as much as 40 per cent., and a bigger acreage, Sweden is nowadays self-supporting in regard to wheat.

A small amount of hard wheat has still been imported to give strength for baking purposes, and the objective now is to encourage the growing of more hard wheat at home. A stiff straw that will stand up to generous manuring and grain of good baking quality are the essential considerations. It should be noted that the farmers of Skåne use fertilizers freely to bring second class, as well as naturally fertile, land to full production, and they realize well the advantages of clover leys in building up fertility.

With the method used in the Svalöf baking tests 100 gr of flour from Squarehead wheat give on an average 450-500 ccm bread, whereas the same amount of flour of the old Swedish wheats, which are poor croppers, gives 600 ccm. Combining the merits of the two, the new variety Steel gives an increased crop of 41 per cent. compared with the old Swedish wheats and a bread yield of 636 ccm. per 100 gr flour, which is quite satisfactory. This is the kind of achievement which makes the plant breeder's work appreciated in Sweden.

A BIOLOGICAL FILM

EVERETT IDRIS EVANS, of the Physiological Laboratory of the Bureau of Dairy Industry, Washington, D. C., writes that numerous requests have been received from teachers of biology and physiology for information concerning the film, "Ovulation, Fertilization, and Early Development of the Mammalian Egg," which was released by the Department of Agriculture in 1935.

This is the same film that has been shown at the meetings of the Federation of the Societies for Experimental Biology and Medicine, The American Association of Anatomists and The American Association for the Advancement of Science, Rochester meeting.

Briefly, this two-reel film is intended to portray some of the fundamental processes of the physiology of reproduction as they pertain to the mammal. The actual process of ovulation in the rabbit is demonstrated, using the living animal; there is considerable footage showing living spermatozoa, alone, and in their attack upon living rabbit ova. The process of fertilization is shown by animated diagrams.

Almost one full reel is devoted to showing of the actual division of rabbit ova, by time lapse photography, from the one cell to the blastocyst stage, that is, the first four days of the early development of the rabbit. The film closes with a demonstration of the development of the cow fetus.

The film is available in either 16 mm or 35 mm size in the silent version. In the near future a sound

version will be released; it may be only in the 16 mm size.

This film is available to high schools, colleges and universities and may be either purchased outright or obtained for loan from the Division of Motion Pictures, United States Department of Agriculture. Because of the heavy demand, it is advised that those who may be interested in obtaining the loan of this picture for the next school year should apply as soon as possible to Raymond Evans, chief of the Division of Motion Pictures, U. S. Department of Agriculture, Washington, D. C.

THE BOSTON MEETING OF THE ACADEMY OF PHYSICAL MEDICINE

THE Academy of Physical Medicine will hold its annual meeting in Boston at the Hotel Statler on October 20, 21 and 22. The program contains symposia and reports on the newer studies and clinical developments in physical medicine presented by recognized authorities in the various fields of medicine and basic sciences.

The meeting will open with reports of the standing committees and of special surveys by Dr. William F. Roberts, Minister of Health, St. John, N. B., Dr. Franklin P. Lowry, Newton, Mass., and Dr. William D. McFee, Boston, followed by presentations on the physics and biology of physical medicine by Dr. E. Leon Chaffee, Gordon McKay professor of physics and communication engineering, Harvard University; Dr. Byron Sprague Price, of New York, and Dr. Heinrich Brugsch, of Tufts College. At 12 o'clock, Dr. Frank Hammond Krusen, of the Mayo Clinic, Rochester, Minn., will give his presidential address on "The Present Status of Physical Medicine." The afternoon session will open with an address by Dr. Winfred Overholser, commissioner of the Massachusetts Department of Mental Diseases, and a paper by Dr. William Benham Snow, New York, followed by a symposium on fever therapy, in which Drs. Frank H. Krusen, Robert E. Peck, Clifton T. Perkins, Harry Solomon, Clarence A. Neymann and Hudson Hoagland will participate. In the evening Dr. Stafford L. Warren, of the Strong Memorial Hospital, Rochester, N. Y., will give the Arthur H. Ring Foundation Lecture, entitled "Fundamental Principles Concerned in the Treatment of Gonococcus Infections by Artificial Fever Therapy."

On the second day a symposium on physical education under the chairmanship of Dr. R. Tait McKenzie, of the University of Pennsylvania, will include: Harold T. Edwards, Harvard Fatigue Laboratory; Dr. Josephine Rathbone, Teachers College, Columbia University; Dean Ernst Hermann, Sargent