

large mechanical installations in operation there. The Bureau of Mines, it will be remembered, has already done a large amount of work in the problem of mine caves. Director Holmes and several mining engineers served in an advisory capacity on the board of the Scranton Mine-Cave Commission. Mining engineers of the bureau gave the subject special attention in their studies of European mining methods and conditions. A mining engineer of the bureau served as a member and represented the cooperation of the bureau on the Pennsylvania State Anthracite Mine-Cave Commission, and in the investigations conducted in connection therewith extensive tests of mine-roof supporting materials were made at the Pittsburgh Experimental Station. The mining engineers and geologists of the bureau cooperated with the Scranton City Council, the Bureau of Mine Inspection and Surface Support, consulting engineers, and the Surface Protective Association in studies and reports for the development of practicable solutions of the serious mine caves occurring during recent years. Charles Enzian, mining engineer of the anthracite region, under the direction of Chief Mining Engineer George S. Rice, will represent the Bureau of Mines in this cooperative investigation.

UNIVERSITY AND EDUCATIONAL NEWS

THE new buildings and grounds of Richmond College were occupied at the beginning of the academic year. After eighty-two years on the site in the heart of the city of Richmond, the college opens the session of 1914-15 in new buildings on a campus of 150 acres in the western suburbs of the city. The opening of Westhampton College, the new co-ordinate college for women, occurred on the same day. The new grounds and buildings of Richmond College for men have a valuation of \$850,000 and those of Westhampton College for women of \$400,000. The buildings are of collegiate Gothic architecture and were designed by Messrs. Cram and Ferguson of Boston and New York.

CAPTAIN THOMAS J. SMITH, of Champaign,

Ill., has given land, valued at more than two hundred thousand dollars, to the University of Illinois, to make possible the erection of a building to house the department of music.

At the opening of the Boston University School of Medicine, Dean Sutherland announced that a gift of \$100,000 had been received for the establishment of a maternity hospital.

WE learn from the London *Times* that the Belgian minister in London has received a letter from the council of the senate of the University of Cambridge offering to professors, teachers and students of the University of Louvain such facilities in the way of access to libraries, laboratories and lectures, together with the use of lecture-rooms, as may secure the continuity of the work of that university during the present crisis. While the University of Cambridge is not in a position in its corporate capacity to offer direct financial assistance for the support of members of the University of Louvain, efforts are being made in Cambridge to provide such help privately. Mgr. Barnes, Roman Catholic chaplain of the University of Cambridge, has explained that the university had invited the University of Louvain to migrate to Cambridge, and there to continue its own separate studies, granting its own degrees and generally continuing its activities as at its own foundation, Cambridge supplying the facilities necessary for the technical carrying out of the work. Hospitality in the way of living accommodation and so forth would probably be offered by the individual colleges and by private residents. Through the American Legation at The Hague the professors of the University of Oxford have offered a home for the winter to the young children of the professors of the ruined University of Louvain. Dr. van Dyke has sent the message by two messengers over two different routes, hoping that one or the other may carry it through. The academic staff of University of London, University College, are prepared to offer hospitality to about 70 members of French and Belgian universities, whether professors, teachers, or students, men or women, who may find it necessary to

take refuge in England. Special arrangements will be made as far as possible to meet the needs of French and Belgian students who desire to continue their studies in London.

PROFESSOR FRANK H. CONSTANT, formerly of the University of Minnesota, becomes head of the department of civil engineering at Princeton University, succeeding Professor Charles McMillan, who has retired and been elected professor emeritus.

JOHN E. BUCHER, associate professor of chemistry at Brown University, has been promoted to be head of the chemistry department to fill the vacancy caused by the retirement of Professor John H. Appleton. Dr. Harold Bigelow, of Mount Allison University, is added to the faculty as assistant professor of chemistry.

DR. CHARLES ALTON ELLIS, formerly of the University of Michigan, and recently engaged as a practising engineer, has been appointed assistant professor of civil engineering in the University of Illinois.

DR. E. HAYNES, of the Lick Observatory, has been made associate professor of astronomy at Beloit College and director of the Smith Observatory.

J. CROSBY CHAPMAN, B.A. (Cambridge), D.Sc. (London), Ph.D. (Columbia), has been elected assistant professor of experimental education of Western Reserve University.

AMONG the new faculty appointments at Oberlin College the more important are the following: Dr. H. N. Holmes as professor of chemistry and head of the department. Dr. Holmes received his A.B. from Westminster College in 1899 and the doctorate from Johns Hopkins in 1907. He comes to Oberlin from Earlham to succeed Professor Allen W. C. Menzies who goes to Princeton. Dr. H. A. Miller has been made professor of sociology and head of the department. Dr. Miller received his A.B. from Dartmouth in 1899 and his Ph.D. from Harvard in 1905. He comes from Olivet College. Dr. George R. Wells is promoted to be associate professor of psychology and Dr. E. M. Kitch enters the department of philosophy as associate professor after

two years of study in the University of Chicago.

CHANGES in the scientific staff of the University of Idaho have been made as follows: Dr. Chester Snow, associate professor of mathematics; Dr. John J. Putnam, associate professor of bacteriology, in charge of the department; Associate Professor C. W. Hickman, department of animal husbandry; Mr. Newell S. Robb, in charge of the department of agronomy; Assistant Professor O. W. Holmes, department of dairying; Professor C. E. Coolidge, mechanical engineering; Professor A. M. Winslow, civil engineering, and Mr. L. W. Currier, metallurgy and geology department.

MR. STANLEY F. BROWN and Dr. Wm. M. Thornton, Jr., have been appointed tutors in the department of chemistry, College of the City of New York.

DR. J. E. ROWE, of Dartmouth College, has been appointed assistant professor of mathematics in the Pennsylvania State College.

PROFESSOR R. H. YAPP has been appointed professor of botany in the Queen's University, Belfast.

MR. L. J. GOLDSWORTHY has been appointed professor of chemistry at the Victoria College of Science, Nagpur.

DISCUSSION AND CORRESPONDENCE

AN EXPERIMENT ON KILLING TREE SCALE BY, POISONING THE SAP OF THE TREE

I HAVE in my grounds a plant of Spanish broom about a dozen years old and with a trunk about four inches in diameter which has for several years been seriously infested by cottony cushion scale (*Icerya purchasi*). I have tried various sprays, have put scale-eating beetles on the tree and at one time cut all the branches off and sprayed the trunk several times in the attempt to get permanently rid of this scale, but up to last winter it seemed that all attempts were in vain. In February of this year, when the broom was very thickly covered with the scale I bored a $\frac{3}{8}$ in. hole in the trunk to a depth of about three inches, filled the hole nearly full of crystals of potassic