

6 inches long, 2 feet broad, and 2 feet thick, and weighs nearly a ton. It is an ore characteristic of the Boulder tungsten field—a brecciated pegmatite and granite cemented by quartz and ferberite.

The second is a large specimen of the newly discovered mineral tungstenite (tungsten sulphide), a gift from Wm. Barrett Ridgely, of New York City. Tungstenite is a soft, lead-gray mineral, looking very much like fine-flaked molybdenite and carries some 44 per cent. tungsten. The specimen, which contains an admixture of some galena and quartz and weighs more than 100 pounds, is from the Emma mine at Alta, Utah. This mineral was identified only last December by R. C. Wells and B. S. Butler, of the United States Geological Survey, and almost simultaneously by K. D. Kuhre and Mr. J. J. Beeson, the geologist at the mine.

The third, and in some ways the most remarkable specimen, is a mass of scheelite (calcium tungstate) from the Union Mine of the Atolia Mining Co., Atolia, California. This mine is undoubtedly the richest and largest scheelite mine ever discovered, and the specimen is correspondingly large. It is a section across the main part of the vein and is 4 feet 8 inches long, about 2 feet 6 inches wide, and 2 feet thick. Some granodiorite, the country rock, is inclosed. The specimen weighs 2,600 pounds and carries possibly 30 per cent.  $WO_3$ , so that it contains in the neighborhood of 700 pounds of metallic tungsten and is worth, at the present price of ore, nearly \$2,000. Great care was needed to remove the specimen from the mine intact, a work which was carried on under the supervision of Charles S. Taylor, one of the discoverers of the mine and now its superintendent.

#### CHEMISTRY AT YALE UNIVERSITY

It has been arranged at Yale University to unite the staffs and laboratories of the undergraduate departments of the college and of the Sheffield Scientific School in a single department. On this plan the *Yale Alumni Weekly* comments as follows:

The article which we publish in this number on the coordination of chemistry teaching in the col-

lege and Sheffield marks a move in what we have good reason to believe will shortly become a general reorganization at the university on a new and co-operative departmental basis. Until now chemistry at Yale has been divided into two distinct and unrelated parts, with its two separate faculties and student groups, its two separate laboratories and equipments, its two separate financial systems, its two separate heads. It has furnished a striking instance of the historical cleavage between the Sheffield Scientific School and Yale College, with all the attendant lack of cooperation and sympathetic understanding which that cleavage has for so many years resulted in. If any criticism of Yale's educational organization has been unanswerable, for years it has been this continued separation between its two undergraduate schools in the teaching of common subjects. It has split Yale into two—on occasion even hostile—camps. It has hindered scientific progress in both schools. It has broken up at the start any possible unity of educational policy which might have been accomplished.

Until now it has seemed impossible to find a way to end this illogical and harmful cleavage between Sheff and the college in their educational organization. But the war, which is subtly undermining a good many of our ancient prejudices, both individual and institutional, has begun to play its deciding part in this historic Yale question. The hours of classroom exercises have recently been made to conform for the undergraduates of both Sheff and the college. The departments of chemistry have now found it necessary to reorganize to meet the new conditions, and, in reorganizing, have found it possible and even desirable to cut the old Gordian knot of departmental prejudices and consolidate as a university department. When this new plan goes into effect, Yale will have made its first definite move in what we believe will be a much more general trend in the near future, toward operating its educational machinery as one university organization rather than as two separated undergraduate departments.

In an article on the subject in the *Yale Alumni Weekly* Professors Bertram M. Boltwood and Treat B. Johnson mention as the greatest needs of the university in chemistry: (1) an adequate endowment for research, (2) the appointment of research professors in each department to organize and direct, (3) opportunities to give greater encouragement to our younger men to carry out research work, (4)

conditions tending to stimulate cooperation between manufacturing interests and our research laboratories in order to broaden as much as possible the applied features of our research work.

### SCIENTIFIC NOTES AND NEWS

DIRECTOR WILLIAM WALLACE CAMPBELL, of the Lick Observatory, University of California, has been elected a foreign member of the Royal Society.

THE annual gold medal of the British Institution of Naval Architects has been awarded to Professor G. W. Hovgaard, of the Massachusetts Institute of Technology, for his paper on "The Buoyancy and Stability of Submarines."

AT the annual meeting of the Chemical Society, London, on March 21, the Longstaff medal for 1918 was presented to Lt.-Col. A. W. Crossley, for his work in the field of hydro-aromatic compounds.

THE University of Chicago has granted leave of absence to Professor Forest R. Moulton, of the department of astronomy and astrophysics, for one year, from April 1, 1918. He is commissioned major in the Ordnance Reserve Corps of the United States Army, and will have the duty of directing the computation of range tables and ballistic data.

DR. T. WINGATE TODD, F.R.S.C. professor of anatomy in the school of medicine of Western Reserve University, has been granted leave of absence from the university and commissioned captain in the Canadian Army Medical Corps. He is at present stationed at the Military Hospital of London, London, Ontario, and expects to see service in France within a few months.

DR. ROBERT W. HEGNER, of the University of Michigan, who has been carrying on research work at the Johns Hopkins University during the past year as Johnston scholar, has been reappointed and will continue his investigations there for another year.

T. B. WOOD, professor of agriculture in the University of Cambridge, has been appointed to the Development Commission of Great Brit-

ain, vice A. D. Hall, now secretary of the Board of Agriculture and Fisheries.

DR. ELBERT C. LATHROP has resigned his position as biochemist in the Laboratory of Soil Fertility Investigations, U. S. Department of Agriculture, to accept a research position with the Jackson Laboratory of the E. I. du Pont de Nemours Company, of Wilmington, Delaware.

MR. R. C. BERGEN, assistant editor of *Metalurgical and Chemical Engineering*, has resigned his position to go into manufacturing work. He has been with the journal since its change to a semi-monthly in 1915.

JOHN C. SCHELLENG has resigned his instructorship in the department of physics of Cornell University to accept a position in war work with the Westinghouse Electric Company.

THE course of lectures on "Symbolic logic" by Mrs. Christine Ladd-Franklin which was to have been given at Harvard University beginning on April 22, has been given up on account of the existing situation. These lectures were given earlier in the season at Columbia University before the Institute of Arts and Sciences.

PROFESSOR W. A. COGSHALL, of Indiana University, delivered recently an address before the St. Louis Academy of Science on "The problems of the total solar eclipse with particular reference to the Corona and the intra-mercurial planets."

PROFESSOR E. V. MCCOLLUM, of the school of hygiene and public health of the Johns Hopkins University, delivered a lecture on nutrition, before the faculty and students of the college of medicine, University of Illinois, on April 11.

DR. E. EMMET REID, of Johns Hopkins University, delivered an illustrated lecture on "Gas warfare" before the West Virginia Scientific Society on April 15. In the afternoon of the same day, he addressed the students of chemistry of the university on "The present status of the chemist."

DR. WINFRED BERDELL MACK, professor of veterinary science and bacteriology in the University of Nevada, died in Reno on January 18, after an illness of three months, aged forty-seven years.