Patents covering production of vitamin D, reported to have yielded royalties exceeding $7,500,000 to the University of Wisconsin Alumni Research Foundation, have been held invalid by the Federal Circuit Court of Appeals.

The decision was written by Judge William H. Denman, with concurrence by Judge Albert Lee Stephens. Judge William Healy concurred in a separate opinion.

The case was taken to the Circuit Court by Vitamin Technologists, Inc., on appeal from a lower court at Los Angeles which had held the Steenbock patents valid and infringed.

The patents in question covered a process of producing vitamin D, known as a preventive of rickets, by subjecting foods to radiation of ultra-violet rays such as are obtained from the quartz vapor lamp.

"Primarily it is to be noted that the claim applies to all ultra-violet rays," Judge Denman wrote in the opinion. "It is not confined to such rays as are produced by a particular medium, such as the quartz lamp. It includes, of course, the ultra-violet rays of the sun.

"Many years before the application, science had discovered that the sun's rays shining on cut alfalfa hay cured in the field was an antirachitic food for pigs.

"Steenbock himself verified the facts concerning alfalfa by the discovery that when cured out of the sunlight it lacked the antirachitic quality exerted when cured in the field.

"We thus have the inventor proving that it is from the ultra-violet rays of the sun that the alfalfa acquires its vitamin D, that is, by the process claimed by him as patentable.

"If the patent be valid, it is thus seen that the farmer is an infringer when he exposes his cut alfalfa to the ultra-violet rays of the sun long enough to make it antirachitic.

"So also the long previously established practice of the radiation of milk by the mercury vapor lamp would infringe the monopoly of Steenbock's patent because, admittedly, in its customary use it would produce in the milk vitamin D."

The court asserted that Dr. Steenbock's "great contribution" to science and human needs was "his more exact recognition of what had transpired in all these prior practical uses of the ultra-violet rays in producing the then unnamed Vitamin D substances."

It added that the District Court had erred in saying that "nature, unaided by man, does not and can not antirachitically activate foods for medicines."

"The clear vision of such a scientific investigator as Dr. Steenbock well may create vastly higher indebtedness from the world of human beings than owed to the inventors of mechanisms and processes to whom his vision is the inspiration," Judge Denman's opinion continued.

"However, our Congress as yet has provided no system of reward to the pure scientist, while it has to the inventor for his processes and mechanism. Steenbock's valuable scientific certitudes are discoveries, but they are not inventions within the meaning of the term 'invention' as used by the Congress in its patent laws."

Judge Denman explained that Dr. Steenbock had been preceded by "the discovery by Hume and Smith" that rats, made rachitic, had their condition improved when put in a cage with a floor of sawdust into which ultra-violet rays had been radiated from a mercury vapor quartz lamp.

"They thought the radiation of the air the cause of the improvement," the opinion stated. "Steenbock discovered the improvement was caused by the antirachitic quality of the sawdust eaten by the rats. He did not invent a method, but merely discovered what happened in the prior known process."

The court ruled that there could be no infringement because the three patents in the suit were invalid.

## THE NATIONAL METAL CONGRESS

PLANS for the twenty-fifth annual National Metal Congress in Chicago during the week of October 18 have been announced by W. H. Eisenman, managing director of the meeting and national secretary of the American Society for Metals.

Final arrangements for a War Conference Display have been completed. All activities will be concentrated in the Palmer House and other Chicago hotels.

The Metal Congress and Conference Displays will center on the increase of war production in the metal industry, to the conservation of metals and to post-war planning. All technical sessions and special daily War Production and Conservation sessions will be streamlined and comprehensive in their contributions to war problems. Mr. Eisenman states that during the past year the metal industry has largely finished its plant expansion job for war and now is confronted with production problems involving shortages of many strategic metals, more efficient use of equipment and continued training of personnel. All these problems will be discussed at the congress.

Four national societies will again cooperate in the congress. In addition to the American Society for Metals, there will be the American Welding Society, the Wire Association and the Iron and Steel and Metals divisions of the American Institute of Mining and Metallurgical Engineers.

War Conference Displays and the sessions of the American Society for Metals will be concentrated in the Palmer House, with the American Welding Society at the Morrison Hotel, the Wire Association at the LaSalle and the American Institute of Mining and Metallurgical Engineers at the Sherman.

The Conference Displays will be placed in the special rooms designed for light displays, which will accommodate light equipment and metal parts. Manufacturers are being urged to use models, moving pictures, photographs and literature to present new developments to the industry.

However, there will be no changes in basic facilities that will enable engineers, executives and production men to get together in one convenient and coordinated meeting place to help solve mutual problems and to bring to the attention of all the developments of the year in the metal industry.

## THE NEW DIRECTOR OF THE U. S. GEOLOGICAL SURVEY

WILLIAM EMBRY WRATHER, consulting petroleum geologist, of Dallas, Texas, became director of the Geological Survey of the Department of the Interior at a recent ceremony in the office of Secretary of the Interior Harold L. Ickes. He succeeds Dr. Walter C. Mendenhall, who retired last February after serving in the survey for forty-eight years.

Following the administering of the oath of office by Chief Clerk Floyd E. Dotson, Mr. Wrather received the congratulations of Secretary Ickes and more than a score of bureau and division chiefs and Department of Interior officials. He has been confirmed in the position by the Senate. Previously Mr. Wrather's name had been proposed for nomination by a number of prominent geologists and scientific organizations, including a committee of the National Academy of Sciences especially appointed for this purpose at the request of Secretary Ickes, who wrote:

> I am confident that Mr. Wrather as its new director will add to the outstanding contributions that the Geological Survey has made in its long years of public service. It was my conviction that the selection of a director of this important scientific agency should not have a political consideration. I therefore requested the National Academy of Sciences to propose for the post the names of men who had high administrative ability as well as sound technical and scientific competence. Mr. Wrather was number one on the list provided by that body.

Mr. Wrather was born at Brandenburg, Ky., in 1883. He received his bachelor's degree at the University of Chicago in 1907 and studied at the Graduate School of that institution for two additional years. He was instructor in geology at the University of Chicago in 1922; the University of Texas in 1927; Yale University in 1930; Northwestern University in 1931, and the Southern Methodist University in 1935.

Mr. Wrather represented the National Academy of Sciences and the National Research Council at the International Congress at Madrid in 1926. He attended the National Geological Congress in South Africa in 1929. He was a member of the Organizational Committee of the Sixteenth International Geological Congress in Washington in 1933 and was a delegate to the Seventeenth International Geological Congress at Moscow, Russia, in 1937. For notable work in geology, he was awarded the alumni medal at the fiftieth anniversary of the University of Chicago.

The new director of the Geological Survey is a fellow of the Geological Society of America, in which he has held several offices; a member of the American Association for the Advancement of Science, of which he is a member of the executive committee; a former president of the American Association of Petroleum Geologists; a former president of the Society of Economic Geologists; a former president of the Texas Geological Society, and a member of the American Institute of Mining and Metallurgical Engineers, of which he was chairman of the Petroleum Division in 1933.

Mr. Wrather's professional work has been largely in the field of petroleum geology, but he is recognized as one having wide understanding and appreciation of the entire field of geology. He formerly served as associate chief of the Metals and Minerals Division of the Board of Economic Warfare.

# SCIENTIFIC NOTES AND NEWS

DR. HARLOW SHAPLEY, director of Harvard College Observatory; Dr. P. W. Bridgman, Hollis professor of mathematics and natural philosophy, Harvard University, and Dr. L. C. Graton, professor of mining geology, have been elected corresponding members of the Mexican National Academy of Sciences.

THE William Osler Medal of the American Association of the History of Medicine has been awarded to George Edward Murphy, of the School of Medicine of the University of Pennsylvania, in recognition of his essay entitled "The Evolution of Our Knowledge of Rheumatic Fever." The essay will be published in the *Bulletin of the History of Medicine*.

THE American Institute of Electrical Engineers on the occasion of the twenty-fifth anniversary of his election as an officer presented a scroll to Walter Irvine Slichter, professor of electrical engineering at Columbia University. He became an associate of the institute in 1900, member in 1903 and fellow in 1912. Sincere appreciation is expressed of his long-continued interest and his uniquely devoted and valuable services in the development of institute activities as director, 1918–22; vice-president, 1922–24; national treasurer since 1930, and chairman and member of many institute committees, 1910–1943. Presentation of the scroll was made by Professor Comfort A. Adams, president of the institute.