

rendered it possible to differentiate almost at a glance between a giant and a dwarf star. As a large amount of spectroscopic material was available at the Norman Lockyer Observatory for the application of Adams's method a trial research was begun. The method is based on a connection found by Adams to exist between the true brightness of a star and the intensity of certain lines in its spectrum. These line-intensities were determined by him by estimation, the plates being examined under a spectro-comparator. At the Norman Lockyer Observatory the method employed is to cover the lines gradually with a dark wedge, the position of which when a line is obliterated indicates the intensity of the line. The results of this trial research have proved very satisfactory, and were commented upon very favorably by Professor H. N. Russell on the occasion of a visit to the observatory. The above grant has been awarded to aid the extension of this research to all stars of suitable type down to declination  $-10^{\circ}$  and of magnitude 6.5 and brighter. It is very opportune, for the staff of the observatory is small, and the work could not have been undertaken without such additional help.

#### HONORARY DEGREES CONFERRED BY YALE UNIVERSITY

At the commencement exercises on June 22 honorary degrees were conferred on several men of science. In presenting them Professor Phelps spoke as follows:

##### *Master of Arts*

ISAIAH BOWMAN: formerly assistant professor of geography at Yale. Director of the American Geographical Society and editor of its *Bulletin*. He has led geological and geographical expeditions in South America. In 1917 he received the Gold Medal of the Geographical Society in Paris. He was the executive head of the house inquiry, being chosen for proved fitness. He did valuable work on boundaries for the Peace Commission in Paris. He is one more illustration of a college professor becoming so generally useful that the college is unable to keep him.

##### *Doctors of Science*

HIDEYO NOGUCHI: distinguished Japanese scholar, M.D., Tokyo, 1897. He has made important discoveries in the treatment and prevention of smallpox and yellow fever. He is an honorary professor of three universities in South America; he has been given the Order of Merit by the Emperor of Japan. He is a striking fulfillment of the Scripture prophecy—"Seest thou a man diligent in business? He shall stand before kings." Dr. Noguchi has received the order of knighthood from three Kings—the Kings of Spain, Denmark and Sweden. Perhaps he appreciates even more than royal honors the admiration and gratitude of the people.

MADAME MARIE CURIE: Marie Sklodowska was born in Warsaw and has always been a scientist; her father was a distinguished professor and her husband, Pierre Curie, will never be forgotten. She was educated at Warsaw and at Paris, and has been professor of radiology at Paris. It is superfluous to mention her discoveries in science, and now she has discovered America. She has often encountered dangers in scientific experiments, but nothing so dangerous as American hospitality; it is to be hoped she will not be a woman killed with kindness. She is unique. There is only one thing rarer than genius, and that is radium. She illustrates the combination of both.

##### *Doctor of Laws*

SIR ROBERT JONES: the leading British orthopaedist. One of the many distinguished men contributed to the world by Wales. Lecturer on orthopaedic surgery at the University of Liverpool; member of many learned societies, author of many books, recipient of many degrees to which number Yale is proud to add one more. Enormously useful during the war. He had charge of the orthopaedic work of the British government 1914-1918. It is largely owing to him that England maintained during the war a position so characteristically upright.

JAMES ROWLAND ANGELL: president-elect of Yale. Born in Vermont, a graduate of the University of Michigan. Professor and acting president of the University of Chicago. Exchange professor at the Sorbonne. At home anywhere and everywhere. Son of a great college president and ideally prepared to be one himself. Trained in scholarly research and in executive duties. A teacher of exceptional power. He has a thorough understanding of America's needs in higher edu-

education and profound sympathy with Yale sentiment. A believer in physical and mental development; a scholar and a man. In choosing Dr. Angell as president, Yale has gone back to her earliest traditions, and, as was the case with her first five presidents, has taken a graduate of another institution. It was not until 1766 that a Yale graduate became president. Instead of having been a Yale man, he has spent his life preparing to be one.

#### HONORARY DEGREES AT HARVARD UNIVERSITY

HONORARY degrees were conferred at the commencement of Harvard University on June 23 on the men of science given below. In conferring these degrees President Lowell spoke as follows:

##### *Master of Science*

CARLOS CHAGAS, of Rio de Janeiro, Brazil. "Director of the Instituto Oswaldo Cruz, preeminent in the knowledge of tropical medicine in Brazil, discoverer of the nature and cause of the disease that bears his name."

##### *Doctor of Science*

SIR ROBERT JONES, of London, England. "The orthopædic surgeon who patiently and silently showed the way to restore to usefulness and comfort the cripples of the war."

GEORGE ELLERY HALE, director of Mt. Wilson Observatory at Pasadena, California. "Astronomer famous in two worlds, whose spectroheliograph has recorded light of the sun too strong and of the stars too faint for human sight."

HERBERT CHARLES MOFFITT, professor of medicine at the University of California. "The physician who built up for the University of California the great medical school of the Pacific Coast."

##### *Doctor of Laws*

JAMES ROWLAND ANGELL, new president of Yale University, Harvard A.M., '92. "A man tried in many posts, whose reputation has grown with every trial; worthy head of a university national in its scope, great in its history, great in its services to the nation, and greater still in its destiny."

#### SCIENTIFIC NOTES AND NEWS

PRINCETON UNIVERSITY, as well as Yale, Harvard and Columbia, has conferred the doctorate of laws on Dr. James Rowland Angell, president of Yale University.

THE degree of doctor of science has been conferred by Williams College on Dr. Henry Baldwin Ward, head of the department of zoology in the University of Illinois.

DARTMOUTH COLLEGE conferred at its recent commencement its doctorate of science on Dr. H. P. Talbot, professor of analytical chemistry at the Massachusetts Institute of Technology.

AT the commencement exercises of the New York State College for Teachers, Albany, on June 20, the honorary degree of doctor of pedagogy was conferred on Dr. C. Stuart Gager, director of the Brooklyn Botanic Garden. Dr. Gager delivered the address on June 18 at the unveiling of the bronze tablet in memory of students of the State College who lost their lives in the war.

THE degree of doctor of laws was conferred upon Dr. C. H. Mayo at the commencement exercises of Northwestern University on June 15.

DR. W. J. MAYO delivered the Henry Jacob Bigelow Medalist Address before the Boston Surgical Society on June 6, at which time he was awarded the Bigelow Gold Medal. The Henry Jacob Bigelow trust fund was established in 1916 by Dr. William Sturgis Bigelow, of Boston, in memory of his father, the income to be used by the Boston Surgical Society to award medals for valuable contributions to the advancement of surgery in this country or in other countries. Dr. Mayo is the first recipient of the medal.

DEAN THOMAS F. HOLGATE, of Northwestern University, has been invited by the University of Nanking, China, to spend his sabbatical year at that institution, lecturing on mathematical subjects and assisting in the general organization of the university. He sails for China on August 18 on the Empress of Asia.

DR. MARK F. BOYD, professor of bacteriology and preventive medicine in the Medical Department of the University of Texas since 1917, has resigned to enter the service of the International Health Board of the Rockefeller Foundation.