

of constructing a large mirror for this observatory. A disk of glass 100 inches in diameter and 13 inches thick, weighing  $4\frac{1}{2}$  tons, has recently been received at our Pasadena shop from the French Plate Glass Works at St. Gobain, France. Much time was consumed in filling our order, and it was hoped that the disk would prove suitable. This does not turn out to be the case, however, and another trial must be made. The observatory will experience no financial loss, as the disk had not been accepted. The loss in time will not be very serious, because of the great opportunities for research in unexplored fields afforded by the 60-inch reflector. I have no doubt that the difficulties of making a homogeneous disk of these great dimensions will soon be successfully overcome, and that the Hooker telescope will be ready in time to extend the work of the 60-inch reflector into territory which even this powerful instrument can not enter.

GEORGE E. HALE

#### BROOKS MEMORIAL

IN the Donovan room of McCoy Hall, Johns Hopkins University, the end of the old and beginning of the new year saw a memorable reunion of men who had worked in contact with Professor W. K. Brooks. Under the guidance of the chairman, Professor S. F. Clarke, many paid tribute to Brooks, the inspiring teacher, whose life at Williams and at Cambridge was vividly sketched by Professor Edward A. Birge, and whose career at the Johns Hopkins furnished the material for many pleasant recollections and expressions of esteem and of love by Professors E. B. Wilson, H. W. Conn, H. H. Donaldson, F. H. Herrick, M. M. Metcalf and others who were Brooks's pupils in later years.

Upon motion of Professor Harrison a committee was appointed to prepare a memorial volume in honor of their master.

Professor E. L. Mark and thirty-two other zoologists of Harvard, in attendance upon the scientific meetings in Baltimore, wrote to express their "sentiments of highest appreciation for the character of the work of William Keith Brooks."

It was hoped that the incidents of Professor Brooks's life at Penikese could be made vivid by one who was there with Brooks, but a telegram from President David Starr Jordan stated his regret that he could not be present to honor the memory of "the wisest of American naturalists." Others were also unable to come to Baltimore. The names of the sixty men actually present follows below:

Edward A. Birge, fellow student at Williams College, professor of zoology, University of Wisconsin.

Samuel Fessenden Clarke, Ph.D., 1874, professor of natural history, Williams College.

Edmund Beecher Wilson, Ph.D., 1881, professor of zoology, Columbia University.

Albert H. Tuttle, professor of biology, University of Virginia.

Basil Sollers, student, 1878-9, teacher in public schools, Baltimore.

William Henry Howell, Ph.D., 1884, professor of physiology, Johns Hopkins University.

Herbert William Conn, Ph.D., 1884, professor of biology, Wesleyan University.

Henry Herbert Donaldson, Ph.D., 1885, professor of neurology, University of Pennsylvania.

Frederick Schiller Lee, Ph.D., 1885, professor of physiology, Columbia University.

James Playfair McMurrich, Ph.D., 1885, professor of anatomy, University of Toronto.

Albro David Morrill, Beaufort Laboratory, 1885, professor of biology, Hamilton College.

George Theophilus Kemp, Ph.D., 1886, sometime professor of physiology, University of Illinois.

Louis J. Rettger, student, 1886-9, candidate for Ph.D., 1909, professor of physiology, Indiana State Normal School.

Charles L. Edwards, graduate student, 1886-9, professor of natural history, Trinity College.

F. L. Washburn, graduate student, 1886-7, state entomologist, Minnesota, and professor of entomology, University of Minnesota.

Edwin Linton, Beaufort Laboratory, professor of zoology, Washington and Jefferson College.

Ethan Allen Andrews, Ph.D., 1887, professor of zoology, Johns Hopkins University.

Henry Gustav Beyer, Ph.D., 1887, medical inspector, United States Navy.

John Pendleton Campbell, Ph.D., 1888, professor of biology, University of Georgia.

Francis Hobart Herrick, Ph.D., 1888, professor of biology, Adelbert College.

Henry Van Peters Wilson, Ph.D., 1888, professor of biology, University of North Carolina.

Arthur Lincoln Lamb, A.B., 1888, science master, Country School, Baltimore.

Clifton Fremont Hodge, Ph.D., 1889, assistant professor of physiology, Clark University.

Thomas Hunt Morgan, Ph.D., 1890, professor of experimental zoology, Columbia University.

Henry Torsey Fernald, Ph.D., 1890, professor of entomology, Massachusetts Agricultural College.

Edwin Grant Conklin, Ph.D., 1891, professor of zoology, Princeton University.

Robert Payne Bigelow, Ph.D., 1892, instructor in biology and librarian, Massachusetts Institute of Technology.

George Wilton Field, Ph.D., 1892, zoologist, Massachusetts Board of Fisheries.

Theodore Hough, Ph.D., 1893, professor of physiology, University of Virginia.

Maynard Mayo Metcalf, Ph.D., 1893, professor of zoology, Oberlin College.

Herbert Spencer Jennings, professor of experimental zoology, Johns Hopkins University.

Ross Granville Harrison, Ph.D., 1894, professor of comparative anatomy, Yale University.

Reid Hunt, Ph.D., 1896, pharmacologist, Bureau of Health, Washington, D. C.

Henry McElderry Knower, Ph.D., 1896, associate in anatomy, Johns Hopkins University.

George Lefevre, Ph.D., 1896, professor of zoology, University of Missouri.

Hubert Lyman Clark, Ph.D., 1897, assistant in invertebrate zoology, Harvard University.

Charles Peter Sigerfoos, Ph.D., 1897, professor of zoology, University of Minnesota.

Duncan Starr Johnson, Ph.D., 1897, professor of botany, Johns Hopkins University.

Gilman Arthur Drew, Ph.D., 1898, professor of biology, University of Maine.

Caswell Grave, Ph.D., 1899, associate professor of zoology, Johns Hopkins University.

Albert Moore Reese, Ph.D., 1900, professor of zoology, West Virginia University.

William Chambers Coker, Ph.D., 1901, associate professor of botany, University of North Carolina.

Henry Farnham Perkins, Ph.D., 1902, assistant professor of zoology, University of Vermont.

Lewis Robinson Cary, student, 1903-5, holder of fellowship, Princeton University.

Rheinart Parker Cowles, Ph.D., 1904, instructor in biology, Johns Hopkins University.

Otto Charles Glaser, Ph.D., 1904, instructor in zoology, University of Michigan.

David Hill Tennent, Ph.D., 1904, associate professor in zoology, Bryn Mawr College.

Eugene Willis Gudger, Ph.D., 1905, professor of biology and geology, North Carolina Normal and Industrial College.

John Augustine English Eyster, M.D., 1905, associate professor of physiology, University of Virginia.

Samuel Rittenhouse, Ph.D., 1905, instructor in biology, Olivet College.

Robert Irvine Coker, Ph.D., 1906, special investigator for Peruvian Government.

Bartgis McGlone, Ph.D., 1907, professor of biology, St. John's College.

Ivey Foreman Lewis, Ph.D., 1908, professor of biology, Randolph-Macon College.

William E. Kellicott, lecturer, 1908, professor of biology, Woman's College, Baltimore.

Samuel Ottmar Mast, Johnston scholar, 1907-8, associate professor of biology, Woman's College.

J. Frank Daniel, Adam T. Bruce, fellow, 1908-9, Johns Hopkins University.

William Dana Hoyt, fellow in botany, 1908-9, Johns Hopkins University.

Asa Arthur Schaeffer, fellow in zoology, 1908-9, Johns Hopkins University.

Frederick Harvey Blodgett, candidate for Ph.D., 1910, Johns Hopkins University.

William Henry Brown, candidate for Ph.D., 1910, Johns Hopkins University.

#### SCIENTIFIC NOTES AND NEWS

As has already been announced, Sir J. J. Thomson, F.R.S., will preside over the Winnipeg meeting of the British Association to be held from August 25 to September 1 of this year. The presidents of the sections are as follows: A (Mathematical and Physical Science), Professor E. Rutherford, F.R.S.; B (Chemistry), Professor H. E. Armstrong, F.R.S.; C (Geology), Dr. A. Smith Woodward, F.R.S.; D (Zoology), Dr. A. E. Shipley, F.R.S.; E (Geography), Sir Duncan A. Johnston, K.C.M.G.; F (Economic Science and Statistics), Professor S. J. Chapman; G (Engineering), Sir William H. White, K.C.B., F.R.S.; H (Anthropology), Professor J. L. Myres; I (Physiology), Professor E. H. Starling, F.R.S.; K (Botany), Lieut.-Colonel D. Prain, F.R.S.; L (Educational Science), Dr. H. B. Gray; and subsection, Agriculture, Major P. G. Craigie (chairman).

Mr. H. B. Woodward, F.R.S., having reached the age of seventy-six years, has re-