

mens of *S. longipes* (now *S. occidentalis*, Bebb) in herb. Nat. Museum; one, an original type specimen by Rugel at Mo. Bot. Gard.; one from Apalachicola bay, Fla. (by Mohr), I venture to predict that after full investigation, the Wardi and longipes will have to go under the same name. In presence of the very high authority of my friend Bebb, I feel fully conscious of the temerity of such assumption; but, if the boldness of an amateur may stimulate him and others to further efforts to solve the entanglement, a good point, at the least, shall have been made in the interest of science.

On previous page is a synoptical conspectus of *S. nigra*, Wardi, and amygdaloides, showing by comparison their resemblances and differences.

N. M. GLATFELTER.

St. Louis, Mo., Oct. 7, 1895.

SCIENTIFIC NOTES AND NEWS.

EDWARDS' BUTTERFLIES OF NORTH AMERICA.

IN the 16th part of his Butterflies of North America, which appeared early in October, Mr. W. H. Edwards has given us one of the most important and interesting of this third series. The three species selected for representation are *Parnassius smintheus*, *Satyrus charon* and *Chionobas gigas*. Every stage of each is represented by the usual wealth and beauty of illustration, which, were we not now accustomed to it, would strike us with amazement, excepting the last species, of which the chrysalis and the last half of the larval life are yet unknown. As to *Parnassius*, no such illustration of a species of the genus has ever been attempted. This Part is particularly valuable, since Mr. Edwards has enriched his text with abundant observations and field notes from his correspondents, so that *Parnassius* extends to 16 quarto pages and *Chionobas* to 11. There is much interesting new matter regarding the formation of the abdominal pouch of the female *Par-*

nassius and figures are for the first time given of Scudder's peraplast, the supposed male implement in its formation. The *Chionobas* portion contains remarkably full comparisons of the habits and distribution of three species of the genus: *gigas*, *californica* and *iduna*, largely from Mr. W. G. Wright's notes, in justification of their belief in the distinctness of these three forms, denied by Elwes.

Another part will presumably conclude the series, but we must express the hope that the indefatigable author will be encouraged by extended subscriptions to begin another series forthwith. Material is not lacking.

THE DAVENPORT ACADEMY OF NATURAL SCIENCES.

THE Academy shows signs of increasing activity. It printed, this spring, *A Summary of the Archæology of Iowa*, by Professor Frederick Starr, of the University of Chicago. This pamphlet, of 72 octavo pages, contains a condensed statement of the substance of more than two hundred scattered articles and papers. It forms a foundation for further study. The Academy now plans a thorough and systematic exploration of the archæology of the State and solicits help from all Iowa workers. A circular stating the plan of the work and giving specific directions to collaborators has been printed and is being distributed. The Academy deserves hearty sympathy in this matter. The present condition and future prospects of the Society are most encouraging. With no debt, it owns a good fire-proof building, possesses important collections in natural history and an astonishingly valuable material from the mounds, and has a library numbering 40,000 books and pamphlets. Its '*Proceedings*,' now in the sixth volume, are known through the world of science. The continuance of publication is now happily assured by a legacy

of \$10,000 just received from Mrs. Mary Putnam Bull, of Tarrytown, N. Y. This gift, a memorial to Mr. Charles E. Putnam and Mr. J. D. Putnam, has been set aside as a Permanent Publication Fund. An effort is now being made to secure an endowment of \$50,000. All who know the history of the Academy will wish it success in this undertaking.

GENERAL.

THE Thirteenth Congress of the American Ornithologists' Union will convene in Washington, D. C., on Monday, November 11th, at 8 o'clock P. M. The evening session will be devoted to the election of officers and the transaction of other routine business.

The meetings open to the public, and devoted to the reading and discussion of scientific papers, will be held in the Lecture Hall of the United States National Museum, beginning Tuesday, November 12th, at 11 A. M., and continuing three days. Information regarding the Congress can be had by addressing the Secretary, Mr. John H. Sage, Portland, Conn.

THE Institute of France celebrated its centenary on the 23d, 24th, 25th and 26th of the present month. On the 23d the members of the five Sections met to receive the associates and the French and foreign correspondents. On the 24th there was a general meeting at the Sorbonne at which M. Poincaré, Minister of Public Instruction and of the Fine Arts, made an address, followed by a banquet in the evening. On the 25th there was a *matinée* at the Théâtre Française and a reception at the house of M. Faure, President of the Republic. On the 26th there was a visit to the Castle Chantilly and a reception by M. le duc d'Aumale.

M. DUCLAUX has been elected director and Dr. Roux subdirector of the Pasteur Institute.

M. JANSSEN described before the meeting of the Paris Academy of Sciences on October

7th an ascent to the observatory on Mt. Blanc made on September 28th. The parts of a thirteen-inch telescope have arrived safely on the summit and will be mounted as a polar sidereostat. The self-recording meteorograph had stopped running, and M. Janssen thinks that it will require further experiments before the instrument will give satisfactory records. M. Janssen took advantage of the dry air of the summit to examine the solar light with a spectroscope and failed to find any rays of aqueous origin, and regards it as certain that there is neither oxygen nor aqueous vapor in the solar envelopes.

THE Hopkins Laboratory of the Stanford University has just issued the first of a series of bulletins, being a report on the Fishes of Sinaloa, giving the results of an expedition, under the auspices of the laboratory, by Dr. Jordan and several assistants last winter to the port at Mazatlan. A similar expedition, under charge of Dr. C. H. Gilbert, head of the department of zoölogy, with a force of assistants, will be made in December of this year to the coast of Panama. Other expeditions will be sent out from time to time until the Pacific coast is covered.

At the recent meeting of the International Congress of Railway and Marine Hygiene, at Amsterdam, Dr. Zwaardemaker, of Utrecht, urged that railway employees should have their sense of hearing as well as their eyesight tested and that applicants for railway service should only be accepted when their sense of hearing is normal. At the same congress an interesting discussion was held as to whether men wearing spectacles may be employed in the railway service. It seems that in parts of Germany defective eyesight may be corrected by spectacles, whereas in other parts those requiring them may not be employed. In Holland men with abnormal vision are not admitted to the railway service, but, if the

eyesight becomes defective later, spectacles are supplied by the company. It was suggested that engineers and firemen who required glasses should not be employed owing to the difficulty of keeping them clean.

PROFESSOR HALE, of the University of Chicago, and Professor Keeler, of the Allegheny Observatory, are now in Boston engaged in testing the lenses which Mr. Alvan Clark has now nearly completed for the Yerkes Telescope and which he will perfect under their direction.

HERR LUDWIG DÜRR, a German civil engineer, has recently exhibited before the military authorities in London a lamp invented and patented by him. The light is originated by automatic evaporation and overheating of the vapors of ordinary petroleum, and is said to yield a light ranging from 3,500 to 14,000 candle power. With it small print could be easily read at a distance of 120 yards. It is stated that the Dürr light has already been extensively adopted by the Russian and German governments.

THE Paris Academy of Sciences listened to a curious address by M. Émile Blanchard on October 7th. M. Blanchard stated that Lord Salisbury's presidential address before the Oxford meeting of the British Association confirmed the views he had always held regarding the permanence of species. He said that he had been unable to alter the hereditary color of the wings of butterflies, though he had kept them under colored lights of all the shades of the spectrum, and that he himself had often offered in vain to bring before the Academy the results of any investigator who had produced a new species in the animal kingdom!

PROFESSOR MACH, of Vienna, and Professor Wislicenus, of Leipzig, have been elected members of the Kaiserl. Leop.-Carol. Akademie deutscher Naturforscher.

DIE Accademia dei Lincei, of Rome, has

elected H. Wild as foreign member and Ernesto Cäsaro, the mathematician, and Annibale Ricco, the astronomer, as corresponding members.

MR. HOLBROOK CUSHMAN, instructor in physics in Columbia College, died on the evening of October 25th from heart disease, at the age of 38.

DR THOMAS KEITH, a distinguished London physician, known for his original investigations in ovariectomy and in fibroid growths, died on October 9th in his sixty-ninth year.

WE learn from the *Naturwissenschaftliche Rundschau* that Professor Dimitri Brändza, director of the Botanical Gardens in Bukarest, died at Stanicul, Moldau, on August 15th. Dr. Riva, the botanist and African explorer, died in Rome on August 24th. On September 4th Professor Dr. Hellriegel, director of the agricultural experiment station, died at Bernberg, at the age of 64 years. On October 1st died Dr. Gustav Wilhelm, professor of agriculture in the technical high school of Gratz, at the age of 61 years, and Dr. Ernst von Rebeur-Paschwitz, astronomer and Privatdocent at Halle, at the age of 34 years.

UNIVERSITY AND EDUCATIONAL NEWS.

ANNUAL REPORT OF PRESIDENT LOW OF COLUMBIA COLLEGE.

PRESIDENT Low's report was presented to the Trustees of the College on October 7th, and will shortly be published. From it we take the following facts concerning the progress of the University.

Undoubtedly the most important events in the history of the University are those relating to its removal to the new site. Of these events President Low's own gift of a million dollars for the Library Building as a memorial of his father, though only incidentally mentioned in the report, is the most noteworthy. A building for the Depart-