Considerable attention has been paid to the local fauna and important additions made to the series of nestlings; other work has been the preparation of series of skins to illustrate the progress of moult from beginning to end.

In ethnology three halls, devoted to material from the northwest coast, have been opened and two others are in course of preparation.

The report is illustrated by a number of excellent plates. F. A. L.

REPORT ON THE BOLYAI PRIZE.

HAVING just received from its author, G. Rados, of Budapest, the detailed report of the Commission on the Bolyai Prize to the Hungarian Academy of Sciences, I venture to translate a few excerpts.

On the occasion of the hundredth anniversary of the birth of John Bolyai was established in honor of this marvelous genius a prize of ten thousand crowns, to go every five years to the author of the best work in mathematics published during that lustrum, account being taken of the entire productivity of the winner. The first decision is as follows: The committee states first that the new view-points dominating modern mathematical investigation have brought out a very notable number of mathematical works whose high worth the committee gladly recognizes; but just this circumstance has made the committee's problem of exceeding difficulty.

The committee was convinced it should best fulfil the intention of the academy by deciding only to consider those works having the most important influence upon the *general* development of mathematics. In this spirit the committee could limit itself to the consideration of the works of two investigators whose merits are acknowledged on all hands, *David Hilbert* and *Henri Poincaré*.

The committee now has reached the unanimous decision to give the Bolyai prize to Henri Poincaré, taking into consideration, in the sense of the statutes, all his work, beginning in 1879 and now having completed a cycle of the entire domain of mathematics, opening everywhere to mathematical investigation new points of view. The committee has, however, at the same time decided, in order to give Professor Hilbert a very special mark of their high appreciation, to charge their reporter—contrary to the usual custom—to discuss Professor Hilbert's works with the same detail as those of Professor Poincaré. For their universal significance is in full measure prized and the committee is convinced they are called to a rôle of ever greater importance.

Professor Rados now begins his report by saying Henri Poincaré is at the present moment unquestionably the most powerful investigator in the domain of mathematics and mathematical physics. His strongly marked individuality lets us recognize in him the intuitive genius drawing the inspiration for his wide-reaching researches from the exhaustless fountain of geometric and physical intuition, yet capable also of working this out in detail with marvelous logical keenness. With his brilliant inventive genius he is distinguished by the capacity for sharp and successful generalization of mathematical relations, which oft empowers him to push far out the boundaries of knowledge in the most widely different domains of pure and applied mathematics. This is shown even in his first memoirs on automorphic functions, with which he begins the series of those brilliant publications, which must be reckoned with the greatest mathematical achievements of all time. Rados plunges now into detail, finishing a necessarily fragmentary account of Poincaré's more than 300 publications, with a mention of his books, of which we will only name two, 'Science and Hypothesis' (1902) and 'The Value of Science' (1905).

Finally, he says, permit me to make mention of his last book, 'The Value of Science' (1905), in which he in a way has laid down the scientist's creed.

I wish from this intensely interesting book to quote a bit verbatim where he carries out in detail the contrast between the intuitional and the logical way of thinking. In regard to the logicians, then says Poincaré:

> Rejecting the aid of the imagination, which, as we have seen, is not always infallible, they can advance without fear of deceiving themselves. Happy, therefore, are those who can do without

this aid! We must admire them; but how rare they are!

Of these marvelous and rare ones is David Hilbert, the master of logical analysis in mathematics. Gifted with brilliant logical power of combination, he creates from out his very self, entirely by generalization, by separation, by union, by aggregation of mathematical concepts, so that no outer stimulus, dependent upon intuition, is recognizable. Logical rigor and elegance of demonstration are for him adequate requirements, and he is convinced that logical precision—rightly grasped—must lead, never to sterilization, but constantly to fruitful further development of mathematical ideas. He applies himself by preference in his investigations to the most difficult, long-unsettled problems, whose essence he with marvelous penetration is able so to seize, that his considerations not only completely solve these problems, but often bring to a final settlement also the whole theory to which these problems pertain.

Mention is then made, among many other achievements, of the wonderful 'Grundlagen der Geometrie' which seems destined to fix what men shall henceforth take as the axioms of geometry, and to establish the criterion of what shall be and shall not be elementary demonstrative geometry.

All hail! Poincaré the supreme mathematician, Hilbert the supreme logician, philosophers, scientists both!

George Bruce Halsted.

Kenyon College,
Gambier, Ohio.

THE CONGRESS OF THE UNITED STATES.

May 7.—Under a suspension of the rules, House Resolution 18,435 to authorize the Secretary of Commerce and Labor to cooperate through the Bureau of the Coast and Geodetic Survey and the Bureau of Fisheries with the Shell Fish Commissioners of the State of Maryland in making surveys of the natural oyster beds, bars and rocks in the waters within the State of Maryland passed the House of Representatives.

May 7.—Under a suspension of the rules, House Resolution 13,543 for the protection and regulation of the fisheries of Alaska, with amendments, passed the House of Representatives.

May 10.—Mr. Perkins, of California, introduced a bill (Senate 6,119) for the protection of animals, birds and fish in forest reserves of California. Referred to the Committee on Forest Reservations and the Protection of Game.

A NEW BUILDING FOR THE GEOLOGICAL SURVEY.

The need of the United States Geological Survey for a new building in Washington, D. C., is most pressing, as every one who visits the survey in its present quarters must realize.

This bureau gives permanent employment to about 1,000 persons, and temporary field employment, chiefly in summer, to nearly as many more. Of this force about 600 are engaged at times, and during all of every winter, on office work in Washington. For their accommodation two buildings are at present rented, one at 1330 F Street, N. W., for general office work, and one in the adjoining alley for the exclusive use of the division of engraving and printing. The floor space occupied, including basement, amounts to 105,670 square feet, which is quite inadequate. Even the corridors have to be utilized for desk space or map cases. It is necessary to supply quarters for some employees in the National Museum and Smithsonian Institution and others are permitted for lack of proper office accommodations to work at home.

A large part of the survey office work is of such character as to demand much more space than that sufficient merely for the desks and chairs of employees. Chemists, physicists, photographers, petrographers, draftsmen, engravers, lithographers and other specialists must have room for their instruments, apparatus, maps, working specimens, drawings, lithographic stones, presses, etc. There is no doubt but that the degree of crowding to which the office force is now subjected diminishes the quantity and depreciates the quality of their work.

Even though the buildings now occupied by the survey were sufficiently commodious, they