

tions on Dzierzon's Theory of Reproduction in the Honey-bee," read to the London Entomological Society.

With a view to test the truth of the theory that "all eggs which come to maturity in the two ovaries of a queen-bee are only of one and the same type, which, when they are laid without coming in contact with the male semen, become developed into male bees; but, on the contrary, when they are fertilized by male semen, produce female bees," from which theory, if true, we might, in the words of Von Siebold, "expect beforehand that by the copulation of a unicolorous blackish-brown German and a reddish-brown Italian bee, the mixture of the two races would only be expressed in the hybrid females or workers, but not in the drones, which, as proceeding from unfecundated eggs, must remain purely German or purely Italian, according as the queen selected for the production of hybrids belonged to the German or Italian race," the writer set to work to obtain hybrids between *Apis mellifica* and *Apis Ligustica*, and also between *Apis mellifica* and *Apis fasciata*, and the result of his experiments was that Ligurian queen-bees fertilized by English drones, and Egyptian queen-bees fertilized by English drones, both produced drones which, as well as the workers, were hybrid in their characters, and bore unmistakable evidence of the influence of the male parent. From this the author drew the conclusion that the eggs of a queen-bee which has been fertilized by a drone of another race, whether they develop into drones or workers, are in some way affected by the act of fecundation, and that both sexes of the progeny partake of the paternal and maternal character or race; from which it followed that Dzierzon's was not the true theory of reproduction in the honey-bee. Specimens of the hybrids were exhibited to the meeting; and Mr. F. Smith (who did not consider *Apis Ligustica* to be specifically distinct from *Apis mellifica*), after an examination of the specimens, corroborated Mr. Lowe's statement that the hybrid drones distinctly showed characters peculiar to *Apis mellifica* in combination with the characters which distinguish *Apis Ligustica* and *A. fasciata* respectively.

NATURAL HISTORY MISCELLANY.

ZOÖLOGY.

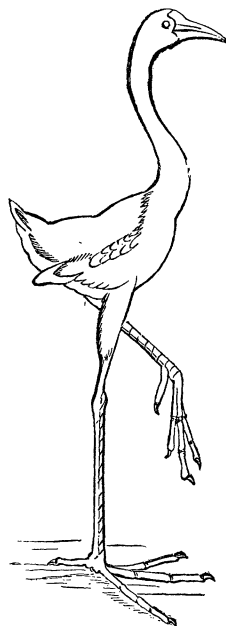
THE DODO.—Mr. George Clarke, of Mauritius, has discovered a large deposit of bones of the Dodo in the swamp known as the "Marcaux Songes." By this now celebrated discovery the whole skeleton of the Dodo has been made known, excepting the end of its wing; whereas before the head and foot at Oxford, the skull at Copenhagen, the foot in London, and the beak at Prague, were all the specimens known of the bird. — *Quarterly Journal of Science, London.*

SINGULAR VARIETY OF THE FIELD SPARROW. — On the 12th of October, I shot a very singular variety of the Field Sparrow (*Spizella pusilla*) Baird. It was precisely similar to the ordinary form of that bird, except that its tail was pure white; with the exception, however, of the second and third exterior feathers, which were of the usual color. So marked a variety in a bird that generally presents very slight variations in color is so remarkable, that I consider it worthy of especial notice. — T. MARTIN TRIPPE.

THE GIGANTIC BIRDS OF THE MASCARENE ISLANDS.— With the Dodo were associated a large Parroquet, the Solitaire, the Géant (*Gallinula gigantea* Schlegel), and the *Porphyrio* (*Notornis?*) *cærulescens* Schl., which last is as large as a full-sized goose, blue, with the beak and feet red. It could not fly, but ran with great swiftness.

We figure from Schlegel's account in the French Annals of Natural Science, 1866, the "Géant," so called by its discoverer, Leguat, who saw this bird in 1694, since which time it has disappeared. It is allied to the Water Hens, and was six feet high; its body was as large as that of a Goose, white, with a reddish spot under the very small wings.

These singular birds characterizing the land fauna of these islands, of which Mauritius is the largest, seem like the gigantic birds of New Zealand, as Schlegel remarks, to have replaced the mammals, of which these two groups of islands are destitute, and thus explains why these most characteristic birds are so peculiar in their size and structure. These birds were destroyed as early as 1700 by the European settlers, the cats and dogs, and the maroon Negroes. The Dodo and Solitaire are figured in Dana's Manual of Geology.



The "Géant," 1-20 the natural size.

THE EAGLE A FISHER.— The American bald eagle (*Haliæetus leucocephalus*) belongs to the group of fishing-eagles, as might be inferred from the name of the genus, which is derived from *hals* (sea), and *a-et-os* (eagle); whence *Hal-i-a-et-us* (and less properly in science, the poetic form *Haliæetus*), a name applied to the osprey by the Greeks. The spelling "*Haliætus*" and the pronunciation "*Haliæetus*" are erroneous.

The East Indian *H. ponticerianus* is known to be a fisher, and the South African *H. vocifer* is called "the fishing-eagle" at the Cape of Good Hope.

The mode in which the bald eagle pursues and robs the fish-hawk is well known from the description of Alexander Wilson, which has been often quoted, as in the fourth volume (p. 92) of Harper's School and Family Readers, by Marcius Willson, who, however, has interpolated the words "as he is not a fisher himself." In my "Notes on Willson's

Readers" (1864) I state that the bald eagle, "with wings nearly closed, darts headlong into the water for his prey, in the general manner of the fish-hawk."

There was an eagle's nest high up on a large buttonwood (*Platanus*, ignorantly termed sycamore in some localities), on an island in the Susquehanna, about ten miles above Columbia, Pennsylvania, and in sight from my father's house, about a mile distant, where I had abundant opportunities to observe the fish-hawk, and the eagle robbing him; but sometimes failing to secure the fish, because its possessor dropped it before the eagle was near enough to seize it in its fall toward the water or the ground: for in the latter case, which was rare, I have observed the eagle to turn away without attempting to seek the fish on the earth.

When there are no fish-hawks to depend on, the eagle fishes for himself, taking the fish (if I remember rightly) with the feet, and leaving the water with apparent difficulty, and a good deal of flapping, which accords with the habits of the East Indian species. — S. S. HALDEMAN, *Columbia, Pa.*

MICROSCOPY.

STUDENTS' MICROSCOPE. — We call the attention of our readers to the advertisement of the Students' Microscope, manufactured by the Boston Optical Works. The stand is solid and very convenient, while the lenses are excellent. It is the best and cheapest microscope for general use for the physician and beginner in microscopy now in the market.

EXCHANGES.

Dr. Hermann Loew, of Meseritz (Posen), Prussia, is very desirous of obtaining fresh and well-preserved specimens of North American Diptera. They are very necessary for the completion of his work on the North American Flies, now publishing by the Smithsonian Institution. He will send very fine specimens of European Coleoptera to any Entomologist who will furnish specimens of Diptera in exchange. Packages may be sent through the Smithsonian Institution, Washington, D. C.

EXPLORATIONS.

Mr. W. H. Dall, of the Scientific Corps of the Western Union Telegraph Company, Russian Extension, writes from St. Michaels, R. Am., Aug. 14, 1867: "I have travelled in winter, with the thermometer from 8° to 40° with dog sleds and snow-shoes, about 800 miles; and