he either lay quiet or rose and stalked back to his own corner as if offended. Some might take it that his conduct indicated a fondness for company, or the possession of grateful feelings, or even an affectionate disposition; but it is not necessary in explanation of Snap's deportment to go beyond his desire for food. In the satisfaction of his hunger his interest in human beings departed. His doings are here put forward in support of nothing except that with proper treatment the snapping tortoise, one of the lowest and least likely of the tortoises, may lose his timidity, his ferocity disappearing in consequence, and become susceptible of a considerable amount of training. S. GARMAN.

Mus. Comp. Zoöl., Cambridge, Mass.

Snow Rollers.

THE article of Dr. Claypole, in *Science* No. 522, on "Snow Rollers," recalls what I saw a few years ago. The condition was like that described by Mr. Hart. There was a smooth crust of snow on which a light fall of damp snow fell. The wind changed suddenly to the north, blew hard, and I saw scores and perhaps hundreds of these snow rollers forming. The wind simply blew them along and they formed just as boys roll snowballs. I feel sure such occurrences are not uncommon here. These rollers were several inches in diameter. D. S. KELLOGG.

Plattsburgh, N. Y., Feb. 9.

The Antiquity of Man.

IN "Current Notes on Anthropology.—xxii." (*Science*, Feb. 10, 1893), Dr. Brinton has referred to certain discussions that took place at the meeting of the German Anthropological Association last August. Not having yet seen the report of that meeting, I cannot judge how far Dr. Brinton may have been misled by his authorities, but I wish to enter a decided protest as to two statements made by him. Let me premise by saying that it seems to me that it behooves Americans to maintain a strict neutrality in the international jealousies between the Germans and the French.

In regard to the importance to be attached to the celebrated "Neanderthal skull," it seems to be sufficient that it has been adopted by De Quatrefages and Hamy to set all the Germans, except Schaffhausen, against it. I did not expect, however, to find an American using such language as this about it: "The Neanderthal skull . . . was not dug up at all, but was picked up in a gully, which had been washed in the mountain side, and came from dear knows where. Probably there had been an old graveyard further up the hill, but by no means one in quaternary times." I will quote the exact language of Dr Fuhlrott, the discoverer, describing the circumstances under which it came to light. "In a wild ravine, called the Neanderthal, cleft in the Devonian limestone, is a small cavern, about eleven feet long, ten broad, and eight high, opening upon an almost vertical wall of rock about sixty feet above the level of the stream [flowing through it]. . . . The ravine has been quarried for marble. In the cavern is a bed of clay, a glacial deposit, almost as hard as stone. In this clay, at a depth of two feet, in August, 1856, a human skeleton was discovered," etc. (Hamy, "Précis de Paléontologie Humaine," p. 237). The real question in regard to these human remains is, in the words of Schaffhausen, "Whether the cavern in which they were found, unaccompanied with any trace of human art, were the place of their interment, or whether, like the bones of extinct animals elsewhere, they had been washed into it" (*Natural History Review*, 1861, p. 172). In all serious discussions it is well to stick close to the facts of the case.

The other subject, about which I dissent from Dr. Brinton's conclusions, is in regard to what he calls "the delineation of a mammoth on a bone from the Lena cave in the south of France. This was not discussed, being probably considered of questionable origin." I must own that at first I was somewhat puzzled to know just what Dr. Brinton meant by "the Lena cave in the south of France." But on looking into the recently published English translation of the Marquis de Nadaillac's "Prehistoric Peoples," p. 119, Fig. 38, sure enough, I found an engraving representing a "Mammoth or elephant from the Lena cave." Now this remarkable designation is not due to the author, who calls it a "Mammoth ou elephant de la Lena," referring to the well-known discovery in 1799 of the body of a mammoth, imbedded in the frozen banks of the river Lena, in Siberia. I suppose that scarcely any relic of antiquity is better known to pre-historic archæologists than the remarkable delineation of a mammoth upon a plate of fossil ivory, discovered by Edward Lastet, in May, 1864, in the cavern of the Madelaine (Dordogue), in southern France. It was made in the immediate presence of M. de Verneuil and of Dr. Falconer, and an account of the circumstances of the discovery was given by him in a letter to Milne Edwards, published in the *Annales des Sciences Naturelles*, 5e. ser., T. iv. (Zoöl.), 1865, pp. 353–356. That even international jealousy should "question its origin" surpasses belief. HENRY W. HAYNES.

Boston, Feb. 16.

Birds in Severe Cold Weather.

DURING the recent severe cold weather, as one of the high-school students was on his way through the belfry of the building to hoist the weather signals, he discovered a small bronze owl perched above one of the windows. It had evidently been drawn thither by the heat from the chimneys and pigeons which frequent the ventilators. On being captured by the janitor, on the day following, the bird made no resistance. It was put into a cage, to be kept for the zoölogy class. It lived but one brief day, and it was found to be emaciated and evidently died of weakness and sheer exhaustion. The taxidermist who stuffed it said that it was only one of a large number recently brought to him as victims of the cold spell. Many were found frozen in barns, and had been driven by the cold from the woods to the city.

Large numbers of snow-birds, crows, as well as English sparrows, were hovering about grain elevators, the glass works, and other similar buildings for warmth and food all through the cold period. The gathering of birds about warm chimneys, etc., in such large numbers was something unusual.

E. R. WHITNEY.

Binghamton, N.Y.

Miocene Group of Alabama.

SINCE sending you a contribution on the Miocene Group of Alabama, Dr. Wm. Dall of the Smithsonian, to whom the fossils collected had been submitted, has returned his report, naming the most of them and declaring his opinion, that they are rather of the older than a younger Miocene. This will better suit the geographical position and other facts detailed of the Grand Gulf. His final determination will be published in the Alabama Report. LAWRENCE C. JOHNSON.

Meridian, Miss., Feb. 13.

Mule-footed Hogs.

MR. J. F. RITTER of Higginsville, Mo., sends me a hog's foot, which to me is something new. It has the two larger hoofs united into one. The bones above are separate but the hoofs wholly united. He states that a farmer of the vicinity has a drove of these mule-footed hogs. By crossing breeds he has some with two cloven feet and two mule feet. I should like to know whether this is a common occurrence, or is it something new? JNO. H. FRICK.

Warrenton, Mo., Feb. 11.

BOOK-REVIEWS.

A Manual of Bacteriology. By GEORGE M. STERNBERG, M.D. New York, William Wood & Co. 886 p. 8°. $7.

THE results of the bacteriological investigation of the past decade, when massed in a huge volume like the one before us, are calculated to arouse the keenest admiration for the talent and industry that have produced them. Even in this period of breakneck *temps* in all lines of human activity and thought the progress of bacteriology seems to the world at large truly marvellous. Every year, we may almost say every month, witnesses some discovery of untold practical value. If a last word had