

Whilst the surface water at this distance from land was comparatively cold, at the shore at Cap a l'Aigle, where it flows and reflows over the rocky shallows, its temperature on warm days was generally from 53° to 60° F., thus admitting of bathing on the part of the summer residents.

LETTERS TO THE EDITOR.

*. Correspondents are requested to be as brief as possible. The writer's name is in all cases required as a proof of good faith.

On request in advance, one hundred copies of the number containing his communication will be furnished free to any correspondent.

The editor will be glad to publish any queries consonant with the character of the journal.

A ROPE OF MAGGOTS.

THE following bit of experience is given in the hope that some well-informed person will shed light upon the subject.

I was hurriedly passing through a wood one damp summer morning when my attention was drawn to what appeared to be a piece of rope lying among the leaves. It was not at all unusual to find short pieces of rope in the pastured woods, but something unusual in the appearance of this one attracted my attention at once. It was moving! not in a forward or backward, nor in a side-wise, direction; nor rolling over, nor in the least changing its position or shape. In the dim light of the woods I could make it out only by stooping down with my face close to it. Then I discovered that it was composed of maggots!

The rope tapered like a whip-lash, which it very closely resembled, being about five feet long, nearly two inches in diameter at the large end, fully two inches at the largest part, and tapering from there to a thin line at the "lash" end. It was in the form of a section of a circle about twenty feet in diameter.

Each maggot seemed to be in motion toward the large end, wriggling over or between or below his fellows. During the five minutes that I watched them there was an advance of four inches, the van of the mass wriggling on the leaves ahead of the rest.

My first thought was that they were feasting on the cadaver of a snake. But there was not the least evidence of a snake. Since all seemed to be migrating, I concluded that they had finished one mess and were seeking another. But I was unable to find anything which they could have hatched in or come from, in any direction, nor any hole whence they might have issued. For nearly two feet in the rear of the moving mass there were traces of them, indicating that they had travelled over that space. Further than that no traces could be found.

Some questions naturally suggest themselves. If the maggots were really migrating, how came they to be in that shape rather than spread out over a larger surface? If they simply occupied carrion which assumed this shape, why were they all moving in one direction? It is not at all unusual to see a great mass of maggots move simultaneously when there is some exciting cause. But these did not have that appearance. They were trying to get somewhere! If they had been feeding upon carrion, why should there be not the slightest remains of it? I hope that some one may be able to throw some light upon this. As near as I could determine, the maggots belonged to the genus *Musca*, and very closely resembled, if they were not identical with, the common house fly (*M. domestica*).

LYNDS JONES.

Oberlin College, Oberlin, Ohio.

SINGULAR BEHAVIOR OF AN OWL.

WHEN collecting plants in the summer I came across an owl standing at the base of a small shrubby oak in a thinly wooded pasture. It was discovered when about

twenty feet away, and was cautiously approached in order to get a better view, and to see how it would act. When I had come within eight or ten feet it fluttered away about as far in the opposite direction, turned partly on its side and spread its wings a little, much as a wounded or fallen bird does. I went up to it, took it from the ground and carefully examined it, expecting to find some wound or mark of disability for flying, but could find none. While doing this it was held in the hands either by the wings, feet or body, the bird quietly submitting or only slightly flapping the wings. After satisfying my curiosity I set it down, not wishing to carry it about all day in order to take it home, for it was not yet noon. To my surprise it immediately flew off several rods with as much apparent ease as any bird possessed. I watched to see where it lighted, and found it in an open place amid the rushes of a dry slough. Being curious to see whether it would repeat the former tactics, I again approached it cautiously, but got scarcely as near as before, when it took wing again and flew still farther off. It was sought once more, and found in a similar place, but had become more wary, so that I could not get very near before it flew so far away that I did not care to follow it up, having become well satisfied that the owl was physically sound, and knew quite well how to care for itself.

It at once became a question why the bird had acted so strangely at first. Was it surprised and bewildered, or dazed by the sunlight, or did it make a deliberate effort to deceive? To decide by the behavior, since one cannot tell what may be passing in the bird-mind, the last offers the best explanation. Though walking quite briskly when the owl was first seen, I at once checked my step, and paused for a little before going nearer. The bird evidently saw me about as soon as I saw it, for its face was towards me, and it watched my movements. How well an owl can see in the day-time I am not prepared to say, though it readily perceived me by some sense on the two subsequent occasions of approach when I was quite a piece away. Hence the attitude it took, its non-resistance when taken in hand, and its submissiveness when undergoing inspection, led me to infer that the owl wished to pass for a worthless fellow, if not dead, and cause me to go by and let it alone. But it evidently came to a different conclusion after the first trial and did not care to run further risk, or trust me longer. From its size and markings it was judged to have been the short-eared owl, *Brachyotus palustris* of authors.

E. J. HILL.

Englewood, Chicago, Dec. 22, 1893.

ON CARIB MIGRATIONS.

IN *Science*, Dec. 15, p. 334, it is said, referring to the Caribs, "It would seem strange if a people who could navigate the Caribbean Sea in large open boats were incapable of crossing from Cuba to Florida."

The assumption appears to be that some Caribs lived on the island of Cuba. What authority is there for this? Is it any more strange that the Caribs did not reach Florida than that the Mayas and the Island Arawacks did not? Both of whom were equally skillful navigators. Or, because they were capable of doing so, are we to assume that they did? Not an element of the Carib language has been found anywhere north of the Isthmus of Panama.

D. G. BRINTON.

Philadelphia, Dec. 27.

POCKET KEY OF THE BIRDS OF THE NORTHERN UNITED STATES.

IN the notice of my "Pocket Key of the Birds of the Northern United States" in *Science* for Dec. 15 it is said that it "will enable a student of nature to determine

the family and usually the genera of any of our northern birds."

As it attempts to trace them all to the *species*, I think the notice should say so, and, if it is a failure in that attempt, say that also, and not lead readers to think I would write a book to enable a hunter to find out merely that the bird he shot is a snipe rather than a duck.

AUSTIN C. APGAR.

Trenton, N. J., Dec. 27, 1893.

BOOK-REVIEWS.

The Science of Education, Its General Principles Deduced from Its Aim, and The Aesthetic Revelation of the World. By JOHANN FRIEDRICH HEBART. Translated from the German with a Biographical Introduction by Henry M. and Emmie Felkin and a Preface by Oscar Browning, M. A. Boston, D. C. Heath & Co. 268 p., 1893.

PROBABLY no feature of our intellectual culture and of our advancement in higher education is so significant as the growing library of pedagogics in this country. For a number of years this department of thought has been sadly neglected with us, while abroad it has long received due attention as a most important factor in philosophic progress. Particularly with the German thinkers has this subject proved most fruitful, but, unfortunately, the peculiar difficulties of philosophical German have limited the English-speaking readers of these works to a favored few who, maybe, from residence abroad have acquired that thorough knowledge of the language necessary. Mr. and Mrs. Felkin have certainly then earned the applause of all teachers and thinkers by their careful and conscientious translation of these most valuable works of Hebart. Hebart himself is known by little more than name in this country, though some may recall him as a former professor at Göttingen, whose works on psychology and education are of great value; and yet as a metaphysician, psychologist, philosopher and teacher few men are deserving of so much careful study.

In the introduction to the present work we have a

charming biographical sketch of the author, revealing in its carefully selected details glimpses of the inner man and offering a series of pen pictures of great value and assistance to the proper appreciation of the discussion which follows. Through his childhood, at Jena, at Bremen, at Göttingen, at Königsberg, we follow the author in his development, if development it can be called, when from their inception his theories seem to be those of mature growth and profound contemplation. Following this entertaining sketch the translators have given a review of Hebart's philosophy, together with a synopsis of the two works which follow and form the principal portion of the book. The review has evidently been written from a thorough acquaintance with Hebart's writings and is an additional aid to our understanding of his principles. "The whole aim of education, according to Hebart, is contained in the one word, morality. Its whole work is to form a character which in the battle of life shall stand unmoved, not through the strength of its internal action, but on the firm and enduring foundation of its moral insight and enlightened will." "Proceeding from morality as the highest aim of humanity, and consequently of education, the essence of formation of character is defined as 'a making' which the pupil himself discovers when choosing the good and rejecting the bad. This rise in self-conscious personality must take place in the mind of the pupil himself, and be perfected by his own exertion. To place the power already existent, and in its nature trustworthy, in the midst of such conditions that it must *infallibly* effect this rise, is what the teacher must conceive as possible—while he must consider the great work of all his efforts is to reach, understand and guide that power."

Industrie des Cuirs et des Peaux, Analyse des Matières Premières, des Agents Auxiliaires et des Products. Par FERDINAND JEAN. Paris, Gauthier-Villars et Fils. 195 p., 1893.

Fabrication des Vernis, Application à l'Industrie et aux Arts. Par LAURENT NAUDIN. Paris, Gauthier-Villars et Fils. 200 p., 1893.

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