Of these two forms Mr. Bowles simply remarks "All things considered, the northern and the southern bird, when laid side by side, would hardly be taken for the same species." Mr. Bowles's third or intermediate form is accounted for by Bendine, in his handsome work upon "Life Histories of North American Birds," where he says: "In the New England States north of Massachusetts it (*Bonasa umbellus*) intergrades with *B. umbellus togata*, the majority of the specimens found throughout southern Maine, New Hampshire, Vermont and northern New York being scarcely referable to either form, birds found in the high lands approaching the Canadian ruffed grouse, while those in the valleys are nearer typical *Bonasa umbellus*."

The charge of Mr. Bowles that "comparatively little has been *printed* concerning the variety of colors worn by the ruffed grouse (*Bonasa umbellus*),—which seems surprising, as it is a favorite game bird,"—can hardly be sustained. It would have been better had your contributor consulted the *very extensive* literature upon this genus before he undertook to *print* his article in *Science* on the coloration of the bird. R. W. SHUFELDT.

Takoma, D. C., Jan. 23, 1894.

Late-blooming Trees.

THE remarks in a recent issue of *Science* on fruit-trees blooming in autumn are of much interest in that connection, but when it is found that many of our wild-flowers show a tendency to bloom at this season, the causes suggested seem hardly sufficient to explain the phenomenon. Some plants that bloom in spring habitually bloom again in September or October. In this class are the common blue violet (*V. palmata* var. *cucullata*) and the dog violet (*V. canina* var. *mulenbergii*). Specimens of these may be found in bloom every autumn, and often the arrow-leaved and Canada violets as well. It is not uncommon to find the red raspberry producing flowers and ripe fruit as late as the middle of October in this latitude. Among the twenty-two species of spring flowers that I have found blooming in late autumn may be mentioned *Hepatica triloba*, *Epigaea repens*, *Houstonia caerulea*, *Ranunculus fascicularis*, *Rosa blanda*, *Hieracium venosum* and *Potentilla canadensis*. When the whole list is examined it will be found that this trait of blooming twice runs through certain floral orders. The rose family (to which the fruit trees belong) is easily first, followed by violets, crowfoots, etc. The list contains few, if any, representatives of those plants that spring from bulbs, corms, or thickened rootstocks, although their buds are formed in autumn. Having a stock of food to draw upon, it would seem that these should be the first to respond to warmth and moisture. It appears to be quite rare for the trillium, dog-tooth violet, spring beauty, rue anemone or blood-root to bloom in autumn, and I should be pleased to hear from those who have found them in blossom at that season.

Apropos of this subject it may be mentioned that the blooming of plants out of season has long been considered an unlucky omen. An old saw runs, "When roses and violets flourish in autumn it is a sign of plague or pestilence during the coming year." In certain parts of the United States the blooming of fruit trees in autumn is supposed to be the precursor of a death in the owner's family. WILLARD N. CLUTE.

Binghamton, N. Y., Jan. 19, 1894.

—Mr. A. C. Cowley, of Trinity College, Oxford, and Mr. T. G. Stenning, Magdalen College, Oxford, have just left for St. Catherine's Convent, Mount Sinai, in order to continue the investigations begun by Mrs. Lewis and Prof. Rendel Harris.

Postage on Natural History Specimens.

IN *Science* for Nov. 17, 1893, p. 267, appeared a circular issued by the Academy of Natural Sciences of Philadelphia, concerning the transmission of specimens of natural history by mail between different countries. This circular asked scientific bodies in certain countries therein named to request their respective governments to favorably reconsider a proposition, made by the United States Post Office, to admit such specimens to the international mails under the rates for "samples of merchandise," this proposition having been once rejected by those countries.

In *Science* for Dec. 22, 1893, p. 348, a Canadian correspondent, Mr. W. Hague Harrington, criticises this circular as follows: "It is sought to throw the blame upon the countries in question, whereas the trouble arises solely from the fact that the United States have not yet advanced far enough to have a *parcel post*, as is in operation among these other countries. There is no difficulty in transmitting specimens from Canada to the most remote countries, but the United States by their policy make it impossible to receive or to send them. The scientific societies should exert their influence at home, and endeavor to have the United States Congress adopt the more advanced and liberal postal arrangements of the countries which your correspondents blame for their troubles."

As chairman of the committee appointed by the Academy to prepare the circular, I have obtained from Mr. N. M. Brooks, Superintendent of Foreign Mails, U. S. P. O., the following official information, which, it is believed, will sufficiently justify the means adopted by this Academy to secure the end desired. It gives me great pleasure to acknowledge here the unfailing courtesy of Mr. Brooks throughout our correspondence on this subject.

The Superintendent's letter, dated Jan. 12, 1894, reads: "With respect to the criticisms (quoted in your letter under reply) upon this Department's failure to more generally establish the parcels post service, it may be well to say that so far as *small packages* of natural history specimens are concerned, the parcel post would afford but few additional facilities over those offered in the regular mails if the rates were assimilated to those in force in Great Britain and Canada; for instance, the lowest charge in Great Britain on a package weighing 3 pounds *or less* addressed for delivery in Belgium is 1 shilling 3 pence (=30 cents), and to France 1 shilling 4 pence (=32 cents), while in Canada the charges for a pound *or less* would be to Belgium 46 cents, and to France 48 cents. While the sums named above may be low for the transmission of three-pound or one-pound packages, it must be remembered that these sums are the minimum charges and must be paid also on smaller packages, even on packages weighing only one or two ounces. If the proposition of this Department, to admit natural history specimens to the mails as 'samples,' had been adopted, small packages of such specimens would have been transmissible throughout the extent of the postal union at the rate of one cent for each two ounces, while the facilities offered by the parcels post for the transmission of larger packages would not have been curtailed. For example, under present conditions a package weighing 4 1/2 ounces may be sent from Canada to Belgium or France as *a letter* upon the prepayment of 45 cents; as a parcels post package the charge would be 46 and 48 cents, respectively; as a 'sample' the charge would be 3 cents."

It may also be mentioned that the United States *have* a parcels post to certain American countries at the rate of 12 cents per pound or fraction of a pound.

Mr. Harrington's criticism is inaccurate when he says that this Academy's circular "suggested that the various scientific bodies of the United States should use their influence to induce the governments of certain enumerated

countries to consent to such material passing by sample post." The circular, on the contrary, stated that this Academy had "resolved to address the various scientific bodies, with which it is in communication *in those countries whose governments have voted against the proposition*," and it is these societies only which the Academy has addressed on the subject. PHILIP P. CALVERT.

Philadelphia, Jan. 13, 1894.

The Climbing Habits of the Soft Shell Turtle (Aspidonectes spinifer).

WHILE making observations on Mud Creek at Ravenna, Nebraska, in the interests of the U. S. Fish Commission last August, I chanced upon an interesting sight. A dam extended across the creek which had been constructed of two-inch plank placed side by side, but instead of placing the edges all in the same vertical line the plank above had been drawn back a little each time, so that the dam presented a series of very narrow steps leading up stream. The slope was gradual, except the last two planks at the top, whose edges were placed in the same vertical line, thus making here a step of four inches instead of two, and, more than that, this four-inch step was allowed to extend out over the one just beneath it for a short distance. The dam was about twelve feet high, and the angle was enough to place the top of the dam two feet farther up the stream than the base. As I approached from below my attention was called to a soft-shelled turtle that was protruding his head from the water at the base of the dam. I did not think that such a clumsy animal would attempt a climb of twelve feet on a very poor road, but presently he ventured out, and by careful feeling was soon up two feet, but at the next step he tumbled back into the water. He was no more down when he started again, only to receive another tumble. Several times this occured, but the last time he had reached the last step, when he met the projecting four-inch step. It was too bad to see him tumble after so much hard work, but the last projection was too much for him, and down he fell twelve feet into the water. He seemed discouraged and not inclined to try it again, although I watched for some time to see what he would do. In addition to the steepness of the steps there were little streams of water flowing over here and there, some of which struck the turtle as it was climbing up.

I saw a common snapping turtle (*Chelydia serpentina*) at the foot of the dam, and while it would thrust out its head and look longingly above it did not attempt to climb.

ULYSSES O. COX.

Mankato, Minn.

A Rope of Insects.

IN response to the letter of Mr. Lynds Jones in *Science*, Dec. 29, I quote the following, concerning the family *Mycetophilidae* from the Standard Natural History, II., 408 : "The larvae of one genus, at least (*Sciara*), have long been known for their gregarious habits. They are often found in dense patches under the bark of trees and, what is more interesting, when about to change to the pupa state, will congregate in immense numbers, forming processions that have been observed four or five inches wide and ten or twelve feet long. They travel in a solid column from four to six deep, over each other, advancing about an inch a minute. From this peculiar habit, they have been called the army-worm in Europe. Similar habits have been observed in this country among our species. One species of this genus (*S. mali*) is known to feed in numbers in the interior of apples in this country." This peculiar habit will be found commented upon in many other popular works on insects. JOHN B. SMITH.

Rutgers College, New Brunswick, N. J.

Note on the Shoulder-Girdle of the Man-o'-War Bird.

FOR publication in another connection, I have recently written out a complete account of the skeleton of the man-o'-war bird (*Fregata aquila*), and have been interested in what my friend Professor Alfred Newton, F.R.S., says of its shoulder-girdle in the "Dictionary of Birds," now passing through the press. In the work named, Professor Newton remarks : "In one very remarkable way the osteology of *Fregata* differs from that of all other birds known. The furcula coalesces firmly at its symphysis with the carina of the sternum, and also with the coracoids at the upper extremity of each of its rami, the anterior end of each coracoid coalescing also with the proximal end of the scapula. Thus the only articulations in the whole sternal apparatus are where the coracoids meet the sternum, and the consequence is a bony framework which would be perfectly rigid did not the flexibility of the rami of the furcula permit a limited amount of motion." (Part I., pp. 293, 294.)

At this writing I have at hand a very perfect skeleton of *Fregata*, kindly loaned me by the United States National Museum, and in it the scapulæ are perfectly free and articulate, as usual with the coracoids, and it is only the furcula that fuses with the coracoids above and with the sternal keel below. Knowing what an accurate observer and describer Professor Newton is, I repaired to the National Museum, and through the kindness of Mr. Lucas, the curator of the Department of Comparative Anatomy in that institution, I was shown the shoulder-girdles and sterna of a number of specimens of *Fregata*, but in each and all of them the scapulæ freely articulated with the coracoids in a manner common to the class Aves. We must believe then that when Professor Newton wrote out his description of that part of the skeleton of the species in question, he must have had before him an abnormal example of the bones to which we refer. My work when published will give a very full and accurate description of all the bones in the skeleton of this very remarkable species, comparing them with the corresponding bones represented by an unusually fine series of the skeletons of other *Stegarcopodes*. R. W. SHUFELDT.

Takoma, D. C., Jan. 19, 1894.

Volcanic Rocks of the Huronian.

IN Mr. U. S. Grant's interesting note on volcanic rocks in the Keewatin of Minnesota, which appeared in *Science* of Jan. 12, he writes : "That the Keewatin rocks northwest of Lake Superior are to a considerable extent composed of volcanic (effusive) material has been stated already by G. M. Dawson, A. C. Lawson and N. H. Winchell." It will be found, however, on referring to the descriptions above cited, that a large part of the formation as it occurs in the vicinity of the Lake of the Woods is actually composed of volcanic breccias and volcanic ash rocks, though materials of effusive origin are also abundant.

The breccias or agglomerates are often very coarse, and the circumstances are such as to indicate that there must have been several volcanic vents even in this region. See "Geology and Resources of the Region in the Vicinity of the Forty-ninth Parallel" (1875) pp. 51–52 ; *Geological Magazine*, Dec. 11, Vol. IV. (1877), p. 316 ; "Annual Report of the Geological Survey of Canada" (1885), pp. 49CC. *et seq.* GEORGE M. DAWSON.

Geological Survey of Canada, Jan. 24, 1894.

Secret Language of Children.

A CURIOUS instance of child language, different from any mentioned by Mr. Chrisman in a recent issue of *Science*, has come under my own observation. It was