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

invented and used by my brother-in-law, Mr. Philip E. Brodt, now a student in Columbia College, when he was about five years of age and living in Dansville, N. Y. While several of the ordinary forms of secret language were known to the children of that town, this language, so far as is known, was a pure invention of Philip, devised probably for his own amusement. No one spoke it but himself, though other members of the family learned to understand it. The boy spoke ordinary English like the other children, and when five years old he spoke fluently this language in addition, when it pleased him to do so. Mr. Brodt still remembers the language, and has kindly transcribed in English and his own language some verses which he was in the habit of repeating at that time.

Hillie wad pa urpmle onkey
Climbup ing ye allsto wick;
Sen he whucked pe thaint aff oll
Mit ade dim heathsi lyck.
En whin dys hiing clour he hasped
Me thonkey in hand his
Band ade warefell wo tearth frand iends
Wand ent tino ba ettler and.
Mo nore she'll hoot lis hittsle ister
Ith whis guden woon,
Mo nore pe'll hull ke thittty's ail
Mand ake yer howl fun for.
Ke thittty's ail stow nands strup aight
Ge thun lis aid saïde,
Me thonky cloes not dimb mo such
Lince sittle Dillwie ied.

Willie had a purple monkey
Climbing up a yellow stick;
When he sucked the paint all off
It made him deathly sick.
When in his dying hour he clasped
The monkey in his hand
And bade farewell to earth and friends
And went into a better land.
No more he'll shoot his little sister
With his wooden gun,
No more he'll pull the kitty's tail
And make her yowl for fun.
The kitty's tail now stands up straight,
The gun is laid aside,
The monkey does not climb so much
Since little Willie died.

While the verses have the appearance and sound of gibberish, it will be seen that the modified words are formed from those in the original by simple transpositions of the consonantal sounds beginning adjoining words or syllables, and sometimes of similar vowel or syllabic interchange, with a few minor modifications apparently for euphony.

H. L. TAYLOR.

New York.

Habits of Gray Squirrels.

I WAS much interested in reading the article by Ray Greene Huling in *Science* of Dec. 1 because it gives positive testimony to what I have always believed in regard to the habit of parent gray squirrels taking their young to places of safety. Some years ago I and my companions had a mania for raising young gray squrrels. In our hunts in the woods we found that not more than one good nest out of five contained any young, and that if we did not secure the young when first found they were always gone when we came again. We explained the great numbers of empty nests by saying that they were to put the young in when the home nest was discovered.

I have raised several young gray squirrels. They were taken from the nest when they were still blind and their tails had not yet become bushy. I fed them with milk by means of a glass pipette, holding one end in my mouth to regulate the flow. I found this apparatus much more satisfactory than spoons or bottles with perforated corks and quills.

The habits of one of my pets in particular were instructive. This squrriel was taken from the nest in the fall, and after having learned to eat solid food was allowed to run at large in the house most of the time during the winter, often being carried for hours in the pockets of some member of the family. In the spring when the doors and windows were open the squirrel was allowed to run about the place. In the course of a month or so he had built *six* different nests in as many different trees and vines around the place—one in the honeysuckle on the front piazza, one in the Virginia creeper that covers one side of the house, and the others in the spruce trees on the lawn. During all this time he was tame enough to be coaxed into the hands by the offer of nuts, etc. As the weather grew warmer our pet became quite a nuisance frcm his habit of carrying off handkerchiefs and lawn neckties with which to line his numerous houses, and from his making a store-house of the bedroom next his nest, on one occasion actually storing a lot of nuts between the sheets of the bed.

For two or three days we noticed that our pet was making a very peculiar noise, something like a scold, but yet not a scold, and that at the same time he (or she) seemed very restless.

At the end of that time he disappeared, and as our neighbors, who lived near a grove about half a mile from us, reported seeing a squirrel which came close to them to be fed, we had no doubt it was ours, which had gone to the grove in search of a mate.

In robbing the nest of the gray squirrel I do not remember to have seen the old squirrels in or near the nest when I had climbed up to it. My experience with the flying squirrel was different. I frightened an old flying squirrel from her nest and while feeling in the nest for the young, the old one actually came back to the nest, and on my climbing away from the nest she entered. This was repeated three times. I finally put the nest in my soft felt hat, and when the mother went in I closed it up and took her and the three young ones to my house. The young were afterward drowned by the upsetting of a cup of water in their cage, but not until after the mother had nursed them for three days in their captivity. I afterward got three more young flying squirrels and raised them on milk. When grown they were very tame and affectionate, but were not as lively and playful as the young grays.

D. T. MARSHALL.

Metuchen, N. J., Dec. 14, 1893.

Sassafras Trees.

I WAS much interested and rather amused by a letter in *Science*, Jan. 5, from W. J. Quick, on the sassafras, in which he says that "it almost attains the dignity of a tree in size."

I should like him to see some specimens on Long Island, although they are, as well as all large trees, fast disappearing so near New York.

When I first came here, in the woods were sassafras trees that held their own for size with the oaks and hickory; although the trunks were not quite so large their heads were held well up with their more pretentious neighbors. I have taken the logs to mill and had them sawed for lumber and used it for many purposes and was greatly pleased with it in places where strength and lightness were desirable. I call to mind a set of sassafras hay shelvings