

supposition of its specific creation in this way at the first, on the plan of destroying two of the four at the birth, and giving one of the remainder a diminished chance for existence, is an utterly bewildering conception.

I know not what quadrupeds or other animals there may be upon Guadalupe Island, of which this bur may have taken advantage for dissemination. I presume there are, or have been, such animals upon the island. But even if there are none, the hypothesis of the development of this bur under natural selection will not thereby be negated. For although we know of this plant only there, we are not bound to suppose that it originated on this small island. The island is now used as a breeding-place for Angora goats. As they come to be distributed upon the adjacent main-land, we may expect that the little *Harpagonella* will take advantage of the offered means of transport, and compete with its relatives already established there.

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#### THE FLORIDA CHAMELEON.

BY REV. S. LOCKWOOD, PH. D.

WITH the opening of summer, the teaching naturalist is sometimes delighted at finding on his lecture table a curious or attractive specimen from the local fauna or flora. Perhaps the object is the more interesting as being the contribution of some enthusiastic pupil. Sometimes it happens that the object has been, at some cost of trouble, obtained from a distance. In this way, early last June, a pleasant surprise was sprung upon the writer, who found on his table a box containing four small lizards from Florida. Poor little things, there were eight of them when they left the sunny South; for alas, four had perished from the roughness of "the middle passage." They had been unskillfully packed, or rather not packed at all; and the shaking they had experienced had been too much for them. That day another died, leaving but three. To get them home I had a ride of thirty miles by rail. Having put my little box safely in a corner of the car, between the coal-bin and the stove, I took a forward seat, and from the effects of late work the night before soon fell into a doze of a few minutes. I was awaked by the noise of the passengers. Happening to look on the floor of the car, I beheld, to my dismay, the youngest of my lizards under the seat immediately before me. It had got out of the box, and had crept under the

seats. With a singular aspect of quizzical timidity it was peering innocently at me out of its pretty, beaming eyes. Now these little things, so purely innocent, are in their movements as quick as light. Something must be done, and very soon, or I and my pet were both undone. If seen by one of these garrulous women, the resulting commotion will be of a sort to defy all sober imaginings, for the little innocent will loom up into the presence of a rattlesnake with four legs, seeking whom he may destroy. I stooped slowly and cautiously. How fortunate! I covered its escape with the first movement of my hand. How the tiny thing did squirm! I took it quietly back to the box, put its nose at the hole whence it had escaped, and so had it once more secure. All these tactics were gone through without attracting the notice of any one; and so, greatly relieved, I resumed my seat as if nothing had happened.

Soon a small fern case was improvised. The sides were glass, and for the sake of giving air, the top was covered with a piece of lace. The bottom was spread with Sphagnum, moderately moist. Into this were set some very small ferns, two species of *Drosera* or sundew, and in one corner a small specimen of *Sarracenia*, or pitcher-plant; this was so elegantly marked that it seemed like those antique carnelian cups which one reads about. Gracefully trailing over this mossy bed was the dark, bright-leaved *Mitchella*. To imitate a contiguous lake or pond, at one corner a shallow vessel of water was sunken in the moss. In this pretty garden our three pets were placed. The design was a mimicry of their own sub-tropical surroundings, with the hope of getting them to feel sufficiently at home to exhibit some of their peculiar traits.

As our little strangers are now snugly domiciled in their new home, some account may be attempted of their family relation and individual habits.

This little reptile is found as far north as South Carolina, hence it is known in the books as the green Carolina lizard. Visitors to Florida seem by almost common consent to have named it the Florida chameleon. While structurally there is in the reptile thus indicated a very wide difference from its namesake, yet there are relationships between them, one of which is notably suggested in the faculty of changing the color of the skin. Indeed, naturalists have regarded this little thing as the representative or analogue in the New World of the chameleon in the Old. Our Florida lizard is a member of the *Anolis* group,

which contains the prettiest specimens of the lizard tribe. The specific name of our subject is *Anolis principalis*. I have not seen one picture of this exquisite little creature in the popular books but is a shameful caricature. So graceful is it that one cannot look at it long without forgetting its reptilian rank. The head is quite flat, and may be likened to a pyramid, with two of its opposite sides much wider than the other two. The teeth are very small and quite pretty, much like the teeth of the very finest jeweler's saw. They are flattish, and pointed, triangular, and the back ones have on each side of the tooth a little spur, also the shape of the central part of the tooth. When first seen the feet present a striking appearance, owing to the very wide and sprawling divergence of the toes, each of which, except the fifth, which is almost rudimentary, is flattened out into a leaf-like spread at the last joint, or the joint next to the delicate, bird-like claw. The scales of the back and sides are so delicate as to give the appearance of a very fine shagreen. Altogether the animal has the aspect of grace and frailty. The one on my table measures seven and a quarter inches from front of lip to tip of tail, which at its base is the one eighth of an inch in diameter, whence it tapers gradually until it ends in the thickness of a mere thread. Indeed, of the seven and a quarter inches total length, four and a quarter are taken up by the tail, so that the actual body is but three inches long. And this airy little body has hind limbs an inch and a half long, giving it great jumping power. In my specimens, contrary to the descriptions in the books, the normal color is a bronze-brown for the back and sides, with a central stripe along the vertebral column of a steel-gray. This warm bronze is made deeper by the presence of innumerable minute markings of lines, zigzags, and chevrons, of a very dark brown. The entire under side is of an ashy or greenish white.

Soon my pets made themselves at home. Two of them, however, were evidently ailing. In fact, only one of them quite got over the rough experience already mentioned. The principal food furnished them was flies, of which they were very fond. We would put them into the fernery unhurt, so as to see the Anoles catch them. The two ailing ones showed little energy in the matter, and, in truth, took their food daintily. The conduct of the other was very different. He would set himself up so pertly, and would cock his bright eyes so knowingly at us, and at a fly at the same time, that we came to regard him with special partiality. His movements were so quick and graceful, and withal he

was so watchful, while the others were so stupid, that he won for himself the pet term Nolie. Indeed, Nolie became, despite his timidity, quite entertaining. For one with so little in his head his ways were often smart, and sometimes there was just enough of selfishness to make things spicy. If he saw a fly walking in the moss, there was first that quick twitch of the head which brought one eye squarely upon his prey. This was to reconnoitre the situation. Then followed the quickest little poke of that nose like a shot, and the fly was taken in and most legitimately "done for." The captor would slightly elevate his muzzle, give two or three champs of the serrate jaws, at least two real efforts at deglutition, and the prey would disappear. Now in this little act of picking out the fly from its entanglement in the leaves of the Sphagnum, it is worthy of note that the whole process had all the precision of an engineer's formula, it was so direct and so neatly done. One of my children put two small toads in with the lizards. As all know, the toad has a projectile tongue with a glutinous tip. This is darted at an insect, which is inevitably captured, and disposed of in the twinkling of an eye. How often, even with so perfect an apparatus, have I seen the toad bring into its mouth, besides the prey, some extraneous object, such as a bit of leaf or straw. *Anolis* does its work better than that, though its tongue gives it no aid whatever.

I have just been watching Nolie eying a fly which was walking on one of the glass panes of his house. He made a noiseless advance of about three or four inches; then followed a spring, when he was seen cleaving to the glass by his feet, and champing the captured fly. I saw him once intently watch the movements of a fly which was walking on the glass. As seemed evident to me by an ominous twitch of that little head, his mind was made up for a spring; but lo, there was a simultaneous make-up of mind on the part of the fly, which at this juncture flew towards the other side of the case. Then came — and how promptly — mental act number two of *Anolis*, for he sprang as the after-thought directed, and caught the insect on the fly, midway between the two sides of the fern case. There was surely very fine reckoning here. And what definite decision and prompt execution! At one time one of the feeble ones, as it hung in a corner of the case by its adhering feet, to my joy caught a fly which happened to walk right before its nose. Nolie had been eying this fly, and probably he was only waiting for the insect to be still a moment on the glass. He had waited too long. So, at any rate,

he seemed to think; for with one leap he nipped the protruding end of the insect, and snatched it from the mouth of its proper captor. "Ah, Nolie; that is very naughty of you, but quite funny; there is so much of human sharp practice in it."

In August the dreaded potato beetles, *Doryphora decemlineata*, were with us in great numbers. It occurred to me to put some into the fern-case. The little toads saw them at once, and their big goggle eyes gleamed with ogreish satisfaction. Quicker than the feat can be recorded one of the Bufos swallowed three of those dreadful spearmen, and his comrade did the same by two. The *Doryphoras* were thus literally taken in, and the Bufos metaphorically likewise. It was specially observable of the one which had swallowed the three spearmen, despite the grotesque gravity of his demeanor, that there was a certain dolorous air about him, as of one suffering from an overdose of *Doryphora*. Though kept some two weeks with no other food, neither Bufo would touch a spearman again. And as to *Anolis*? Ah, he was not the fellow to be caught thus. Was our Nolie more knowing than they? He assuredly was more circumspect, and did not "go it blind." It was plain that he could not stomach these offensive strangers. I noticed that *Anolis* did not fancy beetles, any way. It was fond of the diptera or flies, while an occasional spider was taken with a keen relish. Speaking of spiders in this connection, I am reminded of a kindly humorist who sent from Florida, to a friend, a box of mourning moss, *Tillandsia usneoides*. He had put into the moss, for mischief, one of these inoffensive lizards. The box reached its destination, and when opened, out popped the little prisoner. "Oh, the dreadful thing! Don't touch it! You'll get poisoned, just as sure as you do!" There was quite a consternation, and the unconscious disturber of the peace was summarily consigned to a young lady friend of ours, "who delights in bugs and such horrid things." It was a lucky transfer for poor little *Anolis*. That gentle girl carried her new pet safely through the winter not without care and good judgment. She fed it chiefly on spiders, then almost the only procurable food. To obtain them the outhouses and barn lofts were made to yield to her scrutinizing search. And so well was all this done that when spring came, and insect food abounded, her little chameleon, as she called it, was in prime condition. They are very fond of spiders. Bell tells of a pet *Anolis principalis* catching the large garden spider, *Epeira diadema*, by one leg. The spider bit the little fellow on the lip, and death soon ensued.

When the first sharp days of October set in, the lizard surprised me by a specimen of adaptation to circumstances. It had seemed hitherto incompetent for anything of that sort. It selected a hummock of dry Sphagnum, and with its nose worked a hole something after the manner of a toad while making its hole. Letting it do all it could alone, I then deepened the little burrow with my finger. This was to be its sleeping-place, and the little troglodyte has occupied it steadily, and has slept in it every night now for five weeks.

This 6th of November is delightfully bland, following as it does a raw, bleak day. The sun is now full upon the fern case in the window, and Nolie puts its head out of his sphagnum cave. After many twitchings right and left, for about ten minutes, it resolves to go out for an airing. There is something interesting in the seeming contradictions of these little beings. One while you would think from their movements that they were all impulse and flash, so rapid and jerky, and in such unexpected directions, are their movements. There is so much circumspection in those eyes — a literal looking around things from which one might infer deliberation in every act. Whatever may be the preliminary thinking, the execution is all impulse, flash, and dash. Still, there is one notable exception to all this. It is in the matter of undressing himself, an operation which comes off several times in the season. Nothing can possibly be more deliberate. Previous to the undertaking it looks much as did Patrick's parrot when thinking intently on nothing, although with Anolis there is real head-work going on. In fact, its head is actually turning gray, yes, almost white. There is a serious corrugation of the scalp, then a splitting of the cuticle. It now rubs the head against one of the posts at the corners, thus pushing the skin back on to the neck, on both sides of which the loosened cuticle stands out like a flange, or stiff collar of extravagant proportions. As the sunlight shines through, it has a decided hue, namely, the pale blue of tempered steel, which by a trick of the trade is so exaggeratingly imitated by painting on certain steel implements, as axes and scythe blades. So the creature sits in the sunlight, forcing upon us the most ludicrous associations by its great stand-up collar. We are reminded of the vain servant on his Sunday parole, with collar broad and reaching to the ears, stiffly starched and overblued. "Massy on us, Julius!" said his fellow-servant, "if you should fall down atween dose new scy' blades, you permit suicide, most sartin!" In the sunlight this ragged cuticle is ex-

tremely pretty : a delicate pale translucent blue ; and the scale markings so minute as to suggest a lace work that is too fine for the execution of any loom. But to *Anolis* all this is "gauzy frippery" now, and its presence irksome. A few more rubs and pushes, and in a ragged condition it is got back to the thighs. The persistent creature now succeeds in so flexing its head as to get it flat sidewise on its neck, when it seizes the ragged edge of the old garment with its teeth. There is some tugging, followed by one or two tumbles over, when off comes a large piece of the vestment. What then ? It is swallowed ! Then the head and neck and one front limb are denuded. It turns now to the other front limb, on the upper part of which is a piece of loose skin flaring most prominently. Just then a fly approaches provokingly near. With one boot on and one boot off, *Anolis* makes for that dipteran disturber of his private labors. The fly serves as a luncheon, which disposed of, the lizard resumes its work, and the sharp nose dips into the old clothes again. *Anolis* is not long in getting off the skin. It is all done piecemeal as just described, and every particle is eaten ; even the bits that fall between the plants are carefully picked up. There are several sheddings in one summer. This lizard, I think, has gone through it four or five times this season. Under the microscope a bit of the old cuticle is a beautiful object. This exuvia is the exact mold or impression of the scaly skin which it has left behind. Of course, then, one side of this cast consists of depressions, the other side of elevations, which correspond precisely. Under a quarter-inch objective lens the elevated side is surprisingly like a lot of white peaches spread uniformly on a table. Not truly convex, but gibbous is each elevation, being a little longer than broad. Each has a dark curved line extending nearly its entire length. This line is curiously suggestive of the depression which separates at one side the two cheeks of a peach. Each line begins at the base end of the scale, which corresponds to the stem end of the fruit. Here the line is the widest, when it narrows gently, until it disappears a little before reaching the opposite end of the cast, or, to continue the simile, the flower end of the fruit. At this point the peach similitude stops ; for the entire gibbous surface is closely dotted with polygons or several-sided spots. Although not at all regular, yet the sides of these markings are very distinct, and quite easily counted, each having four, five, or six bounding lines ; or, since M. Martinet insists on the hard words, these figures are composed of irregular rectangles or parallelo-

grams, pentagons, and hexagons. No two of these round prominences, or peach-shaped scale-casts, touch each other. Themselves of a silvery hue, they are separated from one another by a thicker cuticle, of a much darker color, thus throwing out the rounded casts in bold relief.

And what is the philosophy of their swallowing this cast-off skin? I have seen that pretty newt, the *Triton millepunctata*, exuviate beneath the water. Except the rent made at the head, which is the starting-point of exuviation, the divested skin was entire, even to the very toes, and appeared in the water a gossamer likeness of the animal itself. As soon as it moulted, the little thing would turn round and swallow its cast-off garment, tucking it in entire and untorn. The toad does the very same thing. There must be, I think, some vital economy which is subserved by this singular habit of putting up the old clothes, or, as our juvenile wag suggests, turning the stomach into a clothes-chest. Motive in this matter can hardly be attributed to things so lowly. We are reminded of a somewhat similar habit, and quite as strange, of the educabilia, or higher animals. Dogs, cats, cows, etc., devour their own placenta. The mother dog and cat keep the bed of their litter clean by swallowing the excreta. Our little "Lady," a high-bred diminutive hound, had lately two pups. One died in the night. Her mistress was shocked next morning at finding Lady devouring her dead baby. All had disappeared but the head, when her strange work was arrested. And so cleanly was the whole business, not a stain was on her blanket. Now these animals have no cannibal propensities. Recently a cheetah, the Persian hunting leopard (*Leoparda jubata*), having died suddenly, came into our possession. The animal was in such excellent condition, its flesh so fat and tender, that we offered some choice cuts to a number of dogs, Lady being among them. It was really curious to observe their conduct. They stretched their necks, bringing their noses near enough to smell, but not to touch the strange meat; which done, each turned away in solid disgust. Here gleamed the true nobleness of these educabilia, a proper sense of the fitness of things. Nature hath her mysterious sanctities, and even in the animal reckoning, such matters should be promptly put out of sight.

Anolis can cleave to the glass. The phenomena is precisely, as I understand it, the same as with the sucking disk of the shark-sucker, *Echeneis remora*. With a hand-lens I have watched its toes while adhering to the glass. The flattened pads are as dry



as a bone. But the scales are transverse, each one as long as the pad is wide. They are erectile, too. Now when the animal leaps at an object, intending to adhere to it, these scales are shut down tight, and the ridges all closed. At the precise instant of the impact on the glass which terminates the leap, these transverse scales are raised, or set on edge; thus there are as many ridges as scales, that is, so many transverse pits; and every one of these pits is, by the mechanism just described, of necessity a vacuum. Only four of the five toes on each foot are serviceable in this direction. As the pads of the toes vary much in size, so does the number of the transverse scales. They run from about twenty to thirty. Striking an average of twenty-five for each toe, and multiplying by sixteen, there would be not less than four hundred of these sucking pits, or air-exhausted depressions.

In the popular estimate, the chief interest in this little so-called Florida chameleon attaches to its faculty of changing its color at will. Its two extremes of color are a deep, warm, bronzy brown, and a pale but bright pea-green. Throughout the summer, especially at night, the favorite position of our *Anolis* was to hang suspended, with head up, from the posts at the corners of the fern case. In this way they invariably spent the night. It was their chosen position for sleep. How often have I taken the lamp and approached their case at different hours of the night, and found them with eyes tightly closed and fast asleep, and their color a bright green. But the posts to which they thus adhered by their feet was of a deep brown color, hence the two colors were set in striking contrast. Throughout the day, although occasionally playing with diverse colors, they were for the most part brown, and this too although walking or nestling among the green leaves. The belief that the color of the contiguous object is mimicked for the sake of protection is, I think, not confirmed by the observed facts. The truth is that in this matter of animals enjoying life there is a higher law than that of mere intention. I shall call it the law of spontaneous expression, which has its base in another law, to wit, that a joy unuttered is a sense repressed. Why should green be the favorite night-gown of our sleeping *Anolis*? I timidly venture the suggestion that it is because the animal is disposing itself for the luxury of sleep, its color changes being the utterances of its emotions. In these little creatures are united a remarkable agility with an equally marked fragility. They delight in sleep, and they delight in exercise, and take a great deal of both. But they are very

easily tired, and are often seen panting from excessive exercise. Whether it be the expression of enjoyment of repose, comfort, or emotional joy, the highest manifestation is its display of green. Just listen to what I have this day witnessed. Yesterday was quite cold. The fern case was in the window, and a fire was in the room. Still the air was keen and raw. But to-day the atmosphere is mild, and the sun, full upon the window, pours his mellow warmth directly into the fern case. After putting his head forth to inspect the weather, he comes out of his troglodyte chamber, and stretches his brown body in the full blaze of the sun. What a blessed basking this is. To him, in contrast with his cave, it is the luxury of bliss. Nolie soon begins to doze, sleepily opening and shutting his eyes, but keeping both auricles open wide. Now begins that wonderful play of colors. It appears first in the normal bronze brown of the back. Literally they are lively colors, such are the moving changes, as the folds of the skin, especially those on the neck, catch and glance the sunlight. That deep umber is now mellowing into a yellowish brown. A minute more and it has a bronze, coppery tint. Now it runs into an olive-green; anon, a leek-green; at last a pale but bright pea-green. Through all this color transformation on the back there is a medial line extending from the head to the tail, which is always of a hue paler than all the rest. As to the under parts, the customary ashiness is all gone. It is white; but such a white; not glaring, but soft. In fact, I think the tiny scales are now set a little on edge, thus giving the white the aspect of frosted silver. The back, as was said, is green; but I now observe what I have very seldom seen, that, so to speak, over this green is a bloom, so that it looks like a frosted green. It is observable that the top of the flat head doggedly retains its dark normal brown. As to the eyelids, in this matter of color, I think they are the most to be admired. Each of these little brilliant orbs in constant motion is a perpetual twinkle. In ordinary repose the eyelids are a pretty, pale brown. But these organs are especially susceptible of color-change. Not only will they run rapidly through the whole scale, but the positive colors will be spread in such decided and rapid contrast that it seems as if the order were set to the key-note of a humor which "is alone high fantastical." These winking lids emulate the gems. Now, a palish brown, they are smoky topazes. Instantly they become green emeralds, and quicker than one can write flash into the peculiar blue of the turquoise. I have seen the New York

stickleback (*Gasterosteus Noveboracensis*), in its love season, go through changes as bright and rapid; yes, even the gray, cold pupil of its eye would flash into the true blue of heaven. The eye of our Anolis cannot do this. Its colors are fixed. But what a pretty eye it has. The pupil is as the most sparkling jet, and the iris is a ring of limpid amber. But as to these color-changes, it should be borne in mind that they are excited by causes the very opposite in character, love and hate, for they can woo and fight too; also by fear and joy. In the changes just described, I see the manifestation of animal enjoyment. It is Nolie's way of telling it,—his conventional, "I feel good." So dumb is he that this is his only way of getting it out. Only once have I heard any semblance to sound escape him. I had thrown a half-crippled fly at him, which struck on his nose. He let off just the tiniest "umph!" then caught the fly and disposed of it.

The sun has gone down behind yonder house. Nolie knows it. His bright colors have left, and he betakes himself to his little cave.

I had forgotten to say that Nolie's two weakly comrades died within some three weeks of each other. One of them had lain for two days on the mossy bed, and was a beautiful bright green. How we did admire it for those two days, not knowing that its little life had fled. It was somewhat consoling to us all to reflect that doubtless its time had come, and it had died in a green old age. It was put into alcohol, where in a few days the green disappeared, and the normal brown returned. This surprised me, as I had expected a result similar to my experience with the green snake (*Chlorosoma vernalis*), which in alcohol turns blue. Respecting its comrade, it should be added that it also departed this life in a suit of green.

I once possessed a very large Anolis from Cuba. Its body was about ten inches long, and it was quite thick in proportion. That which entertained us greatly was its expansile throat, or dewlap, which it would inflate to an enormous size. This characteristic is to some extent true of our little *Anolis principalis*, and is dwelt upon largely in the books. In this regard I have been disappointed, having witnessed the phenomenon only twice in an entire summer. The spectacle, though strange, is very pretty. The skin under the throat expands immensely, giving to the animal a comical but rather formidable aspect. The colors of the inflated dewlap are very fine, usually ending in a perfect flame of intense scarlet.

A word more must be said of those delicate markings of very dark brown, sprinkled so thickly on the back and sides. As already mentioned, they are made up of little straight lines, zigzags, and chevrons. They are as constant and perhaps as inexplicable as those queer markings on certain minerals, known as "Widmannstättian figures." These tiny markings on the back and sides of *Anolis principalis* are always there, and they never change their color. Even when *Anolis* has changed from a ruddy brown to a bright green, a hand-lens will show that these figures are all there, and that they have retained their brown color too. And in some way, upon close inspection, it will be seen that whatever the hue may be that is assumed, these singular figures impart to it character and tone.

I think our observations show that the highest effort in color-change is in the green. There were two instances in which it is my belief that this same color was produced involuntarily. It is observable that the *Anolis* delights in tints. From a deep olive it will run through the entire gamut of that color by insensible hues into a leek green. It does not like harsh color lines. Now on one occasion Nolie had a queer spot break out on his right flank, just behind the fore limb. It was a bright green patch, nearly half an inch in length. The outline was sharp and angular. It was on a cold day, when the room was uncomfortable, just the time when there is no disposition to change color. It is notable, also, that this patch of green upon that dark ground of brown held its brightness for two days, a very long period indeed. At another time, under like circumstances, a smaller patch of the same color appeared on the left flank, near the hind leg. It had the same patchiness as the former spot, and also continued bright for an unusually long time.

Perhaps a hundred times have we been asked the question, "How are these changes of color produced?" The physiology of this matter is not well understood; but there is a hypothesis upon it which is probably in the main correct. To state this in rigid accuracy would likely for some of our readers require too many technical terms. At the risk, then, of appearing to be didactic, we will use very different speech. Supposing through a sheet of block tin many thousands of little pipes were made just to enter. Let them, if you will, be regarded as infinitely small. Call this series A. Now suppose another series in all respects similar and fixed in like manner. Call this series B. It must be understood that the pipes of one series alternate with those of

the other series, so that it shall be first a pipe of A, then a pipe of B, and so on in regular order for both series. Suppose again that the A pipes contain green pigment, and the B pipes contain yellow. We will further imagine that each pipe series has a series of muscles which can act upon them. Now laid over the mouths of all these pigment tubes let us suppose a translucent film. Our perforated block tin and its translucent spread, with the mouths of the color tubes opening between them, shall represent the *rete mucosum*, or colored layer of the skin. Suppose now the appropriate muscles squeeze the lower ends of the A series of pigment tubes, the pigment at once comes up against the almost transparent skin, the color of which is now blue. Let the muscles relax and the pigment descends into the tubes again. Let the same process occur with the B series of tubes, and the result will be that the skin shows a yellow color. Not waiting for the yellow pigment to return into the tubes, let the A series be again squeezed, and up comes the blue pigment against the translucent spread. Now everybody knows that a green color is easily made by a mixture of yellow and blue. Suppose the little spots where the blue touches under the translucent film to be so small as to be called molecules, and suppose the same of the spots where the yellow pigment touches, and you have all the conditions necessary for begetting green. It is also easily imagined how by regulating the amount of muscular pressure the proportions of the separate pigments is regulated, and so the most delicate tints are produced.

At the dining table of a hotel in Florida a lady appeared with her four pet Anoles. They were fastened to her head-gear by silken threads, and ran over her neck and head, or nestled in the tresses of her hair, as they saw fit. In this particular we think the lady did violence to the rights of others. But duly regarding the proprieties of time and place, the lady did well in her delight with her "little chameleons." As a pet, the *Anolis principalis* is everything that is commendable: clean, inoffensive, pretty, and wonderfully entertaining; provoking harmless mirth, and stirring up in the thinker the profoundest depths of his philosophy.