Caoutchouc may be utterly ruined by the use of impure solvents, and those experimenting with India-rubber solutions should in cases where it is desirable to regenerate the caoutchouc, by allowing the solvent to evaporate, take the utmost care not to employ any solvents which contain fatty or greasy matter.

Weak or diluted acids have little or no action on caoutchouc in the majority of cases, but strong sulphuric acid slowly acts on it, the action becoming rapid if heat be applied. Strong nitric acid acts on it with some energy, causing its entire destruction, and in a similar manner it is destroyed by the prolonged action of chlorine, bromine, or iodine; although these reagents, when their action is kept under control, have a vulcanizing or strengthening action.

A Peculiar Steamboat.

A propeller of novel construction has just been finished in San Francisco, California, to ply between that city and the Eel River Valley. The condition of the route required a staunch sea boat, which should also be of light draught, to be able to cross the bar at the mouth of Eel River.

The vessel is 152 feet in length, 140 feet length of keel, 26 feet beam, 9 feet depth of hold, and will register 250 tons. When loaded with 300 tons of freight she will draw only 7 feet of water. She is flat-bottomed, but has a tapering bow and stern, and her lines are as beautiful and graceful as those of a yacht. The peculiarity of the boat consists in the arrangement of the two propellers. Instead of projecting from either quarter on either side of a single rudder there will be two rudders, and each propeller will be arranged with respect to its corresponding rudder, just the same as it would be if there were a single propeller. There are in reality three keels, the center one curving up at the stern, following the line of the vessel. Those on either side, however, are 12 or 15 feet apart, and run straight out beneath the stern, where there are two stern posts and two rudders. The spaces between the keels and the hull proper are filled in solidly with knees, strongly bolted in every direction. There is left between the two keels a wide space, which will give free access to water, so that each propeller will act as well as if it were the only one used to draw the boat. The propellers are 6½ feet in diameter, of the Hirsch patent, and the pitch of the blades is set opposite, so that in going ahead both will turn to the center. They will be driven by twin compound engines, set 9½ feet between centers, with a surface condenser between. The condenser will contain 756 tin-plated brass tubes, ⅝ inch in diameter, secured in end plates with a wooden ferrule, and affording 618 feet of cooling surface. The condenser will be operated by a Blake compound air circulating pump, throwing 300 gallons per minute. The engines will have high and low pressure cylinders, the high pressure being 11 inches in diameter and low pressure 20 inches, with a 15-inch stroke. The steam will be supplied by a tubular boiler, with 3-inch return tubes. The engines will be so arranged that the engineer will face the bow, and will regulate his propellers by levers on either hand—pushing them forward when the bell signals "Go ahead," and bringing them back when he is signaled to back the vessel. The arrangement of the propellers is such that one may be backed while the other moves ahead, and the boat can thus be turned in her own length. This is of especial importance, on account of the narrow and crooked channel across the Eel River bar, where boats often ground because of their inability to turn quickly enough. The two keels under the stern will serve to protect the propellers if the boat grounds.

Water as a Prophylactic and a Remedy.

At the recent meeting of the American Neurological Society in this city, a paper was read by Dr. S. G. Webber, of Boston, upon this subject, from which we abstract the following:

Many people had a notion that it was injurious to drink at meals, but a moderate quantity of fluid taken at meal time was rather beneficial than otherwise. A large class of patients were affected with symptoms of an indefinite character—a vague unrest, showing itself by discomfort or even pain, sometimes in one place, sometimes in another. They were usually subject to constipation, often had an unhealthy hue of the skin. They were frequently classed as hypochondriacal or hysterical. There was no well defined disease. These patients usually drank too little water. The waste of the tissue changes in the system must pass into the blood, and could only leave the system in a state of solution. During comparatively good health, the amount of blood was maintained at nearly the same figure, and only so much water would be parted with through the skin, lungs, and kidneys as could be restored from other sources. If too little water was ingested, the perspiration would be slight, the elimination of urine would be diminished, and the excretion of waste material would be lessened. The blood would be continually saturated, or nearly so, with the results of disassimilation. The removal of the waste of tissue changes was not accomplished with sufficient regularity, and the tissues became clogged with used up material and nutrition was interfered with. The balance each day against health was very slight; but after a time there was such an accumulation that unpleasant symptoms were developed. If the person continued to eat heartily, either the surplus food passed off by the intestines, or was deposited in the shape of fat, the nitrogenized portions assisting to load the urine with urea and the urates. Let such a person drink a large amount, and the blood, having a sufficient supply of water, more urine would be secreted, the loss made good to the blood by absorption, and a larger amount of waste products would be taken up to be eliminated; more urea or phosphoric and sulphuric acids passed off by the urine, which was increased in amount, and there was more disintegration of the tissues. This last was made up by new material, so nutrition was increased. The doctor found that neurasthenic patients did not drink enough.

Dr. Beard remarked that he had found thirst a prominent symptom of neurasthenic patients. He had been using Summit water with good results. He used the bromides alternately with tonics and a free supply of water. The plan was very satisfactory.

Dr. Webber said that patients who drank no more than a pint or twenty ounces of water per day, had told him that they were not thirsty, and were surprised when he told them to drink more water. These directions being complied with, the patients, in the course of the week, developed thirst, and drank as many as three pints a day.

Analyses of Barley, Rice, and Maize.

The following comparative analyses of the three grains are by Pillitz:

	BARLEY.		RICE.		MAIZE.	
	Air dried.	Dried at 257° F.	Air dried.	Dried at 257° F.	Air dried.	Dried at 257° F.
Moisture	13·88	—	12·51	—	13·89	—
Starch	54·07	62·65	74·88	85·41	62·69	72·27
Insoluble ash	1·07	1·23	0·39	0·45	0·33	0·38
Fatty matters	2·66	3·08	0·78	0·90	4·36	5·03
Cellulose	7·76	8·88	0·76	0·87	4·19	4·82
Insoluble albuminoids	12·43	14·28	8·78	10·01	8·63	9·95
Dextrine, Sugar, Soluble albuminoids, Soluble ash, Extractive matter (soluble in water)	1·70 / 2·43 / 1·77 / 1·26 / 1·50	1·96 / 2·71 / 2·05 / 1·45 / 1·71	1·11 / traces / 0·41 / 0·45 / 0·11	1·27 / traces / 0·46 / 0·51 / 0·12	0·76 / 1·38 / 1·87 / 1·15 / 1·43	0·83 / 1·59 / 2·16 / 1·32 / 1·65
	100·53	100·00	100·18	100·00	100·68	100·00

Enemies of the Tea Plant.

Speaking of blight, we think that if more care was taken to watch its first appearance, many of the remedies prescribed might be possibly effectually applied. But when blight has been allowed to spread over a large area, it becomes almost impossible to stop it. Bushes on which blight appears should be promptly treated, wherever possible, and different known remedies tried. It is seldom that an area is attacked all at once, and there is no doubt that with spider and some other blights, they are carried about by the coolies from bush to bush. It is generally supposed that heavy rain washes away the red spider. To a certain extent, no doubt, it does, but the creature has a trick of getting underneath the leaf when he finds the moisture too strong for him, and when the warm sun comes out again he recommences his peregrinations and destructive action over the surface of the leaves. The activity of the insect is something surprising, and an investigation, under the microscope, of the leaves attacked will show them transparently red, and covered with hundreds of eggs, with little spiders emanating therefrom and cutting about with amazing vigor. The unhatched eggs (that is those not yet matured) are unfortunately not destroyed or washed off the bush by the rains, in consequence of being practically gummed to the leaf, and thus a second syringing or treatment should follow very quickly. If *heavy* rain falls at the right time, it may save the trouble of syringing.

Besides the red spider blight, the Darjeeling district is suffering from green fly blight. This pest eats the outside of the stem of the flush, causing the leaf to curl up and wither by reason of the sap being prevented from rising. There is also the red bug, which cuts through the upper shoot of the flush, and makes it droop off. Then the mosquito blight, which, puncturing the leaf, and preventing the distribution of sap, hardens it.—*Indian Tea Gazette.*

Distortion of Lenses by Pressure or Strain.

Many photographers have from time to time remarked that it is occasionally impossible to focus an object sharply and clearly, even with a lens known to yield a satisfactory result in ordinary cases. Setting aside such obvious causes as light shining into the lens, or the presence of moisture on one of the glasses, there can be little doubt that the most frequent source of the difficulty in question is a bending or distortion of the objective by some mechanical force acting on it. In the case of lenses burnished into their mounts, a contraction of the ring by cold may distort the lens uniformly, if its fit in the mount is accurate, merely altering the focus and disturbing the corrections of the instrument. If, however, the cell in which the lens may be mounted is not turned with extreme accuracy, or if the outside of the lens itself is not truly round, so irregular a distortion may arise as to altogether destroy the defining power of the combination to which the lens belongs. There is no question that the practice of burnishing lenses into their mounts has its disadvantages, for when this plan is adopted the operator has no easy remedy against a "frost-bound" lens, excepting to keep the instrument warm during the time he is using it. If, on the other hand, the glasses are not cemented in their cells, they are liable not only to be misplaced by careless persons, but also to be distorted by being screwed down in their places by an undue degree of force. Lenses should generally be left just the least bit loose in their mounts—not quite enough to cause any possibility of shaking, but the right degree of looseness can generally be estimated by making an attempt to turn the lens in its setting. Few persons realize the ease with which glass bends and yields to pressure.—*Photographic News.*

ENGINEERING INVENTIONS.

An improvement in endless cable railways has been patented by Mr. Samuel M. Pettengill, of Brooklyn, N. Y. It relates to railways provided with a moving endless cable, rope, or chain, for propulsion of the cars. The object of this invention is to furnish the cars with means for seizing and firmly holding to the rope or cable without shock.

Mr. James B. Jenkins, of Warren, Ill., has patented a grapple for lowering pipes into wells that may be detached from the pipe automatically by sliding it down on the pipe until it comes in contact with a coupling.

An improvement in that class of railways in which no wooden ties are used, and the pot sleepers or chairs are flared to rest directly upon the ground, and are cast in one and the same piece with a jaw which is perforated with holes for the fish bolts, between which jaw and the fish plate the rails are bolted, has been patented by Mr. William Rainbow, of Chancery Lane, England. The improvement consists, mainly, in the means for connecting the chairs so as to preserve the gauge of the road.

A clock device to be used on railroads to be operated by passing trains, whereby the time elapsing between the passing of one train and its next succeeding one will be correctly indicated to the engineer of the succeeding train, has been patented by Mr. Alma P. Burroughs, of Seneca Falls, N. Y.

Mr. Augustus B. Wood, of Fountain Hill, Ark., has patented a cheap and economical oscillating engine furnished with a valve so arranged and controlled that friction and pressure upon the valve seat are reduced simply to that which is necessary for preserving a steam tight joint between the two.

An improved low-water alarm for boilers has been patented by Mr. Nathan L. Adams, of Fort Collins, Col. The object of this invention is to furnish steam boilers with an improved device that will indicate automatically and give an alarm when the water in the boiler falls below the safety point.

Mr. Anton Pohl, of Baltimore, Md., has patented an improved spark arrester, in which the joint action of gravity, deflection, and centrifugal force is employed to separate the sparks, cinders, and solid matter from the smoke as it escapes through the stack of a locomotive, whereby the work may be effectually accomplished within the limited space of the stack without materially intercepting the draught. The improvement consists in arranging an annular chamber around a cylindrical stack, and providing the stack with a spiral deflector plate, which will give a rotary motion to the smoke and cause the solid matter to be thrown off against the side walls of the stack, where it is intercepted by projecting plates and conducted through openings into an adjoining annular chamber and deposited at the bottom.

An improved car coupling has been patented by Mr. Edward S. Plimpton, of Denison, Ia. This invention is an improvement in the class of car couplings in which the coupling pin is provided with an arm that projects from the head thereof and rests in a socket in the front top portion of the draw head, so as to constitute a fulcrum on which the pin may swing when pushed back by the link in the operation of coupling.

A Magic Lantern and Six Slides for Six Cents.

A small tin lantern, about three inches high, with lamp, slides, and two lenses, is actually being now sold in London at the abovementioned price; while a larger one of a similar character costs the somewhat more extravagant sum of fifteen cents. The small lantern is of German make, and when one considers that the manufacturer cannot get more than four cents for the article, it is a matter of wonder how it can be produced for the price. Very little can be said as regards the artistic merits of the slides, but like the old Dutch tiles, they at least possess the merit of being hand-painted—if, indeed, this be a merit. The lenses, which, as regards optical work, are superior to many spectacle glasses sold in London, give, as an advertisement would put it, "a brilliant illuminated disk six inches in diameter." There is also sold in London at the present time, a toy camera-obscura about the same size as the magic lantern in question. Who knows but what the present pushing age may produce a small tin photographic camera, double slide. two dry plates, and lens for about 25 cents? It could certainly be done if the work were executed on the same scale of cheapness as in the case of the magic lantern. It is, perhaps, not generally known that a very passable photograph can be taken with a common penny magnifying glass, if it be stopped down and a proper adjustment made for the difference existing between the chemical focus and actinic focus.—*Photographic News.*

Brilliant Tints of Californian Flowers.

Under the title of "A Botanist in Southern California," Mr. J. F. James contributes to the *American Naturalist* some interesting sketches of the vegetation of the country in the vicinity of Los Angeles. Rain falls there only from November to March, and the rest of the year is hot and dry. By the middle of June or July vegetation is parched up, and the country has a very depressing aspect; but the spring is glorious. Then the plains surrounding the city, the hills, and the valleys are one mass of gorgeous, brilliant flowers. They are there by thousands upon thousands, and of almost endless variety. Most conspicuous of all, both for its abundance and its color, is the Californian poppy, *Eschscholtzia californica.* It covers acres of ground, and the bright

golden-yellow or orange of its flowers is visible for miles. When the sun is shining full upon it, it is too dazzling for the eye. In places where the ground was plowed paths of it had been left, and they seemed like tongues of fire running over the ground. Among other showy plants are *Sidalcea malvæflora*, with large purple flowers; *Platystemon californicus*, called cream-cups; *Dodecathon meadia; Bœria gracilis*, a composite with bright yellow flowers, covering acres of ground; *Pœonia brownii*, in tufts, with large purple or reddish flowers; various species of *Gillia, Pentstemon, Lobelia, Phacelia, Nemophila*, together with *Clarkia, Salvia, Castilleia, Convolvulus*, and *Colochortus*, making up such a wealth of color as is rarely seen elsewhere.

THE CONCH FISHERIES OF THE BAHAMAS.

BY W. H. WEED.

Conch fishing in the Bahama Islands is quite an extensive industry. There are about 500 vessels engaged in this and the sponge and turtle fisheries. Most of these from time to time engage in conch fishing according to the demand for the shells.

The vessels employed are either sloops or small schooners, and carry from three to ten men, most of them of the "colored persuasion." These negroes are expert divers and swimmers, being accustomed to the water from childhood. They enjoy the distinction of being perfectly fearless, even in the presence of that dreaded enemy of divers, the shark, who is found in abundance in these waters. It is a current saying in Nassau, when a stranger asks if the negroes are not afraid of sharks, that "a shark will not attack a nigger." The men usually work on shares, and their reward being thus dependent upon their own exertion, each one spurs the others at their work; they all labor with more energy than is usually characteristic of their race in this climate. The conch, which is like an enormous snail, is found in the shallow waters of this vicinity, the sea bottom of the numerous shoals being a favorite place for them. The larger crews work in parties of two, three, or four, in separate boats and independent of each other.

In order to locate the position of the fish they use what is called a "water glass." This is a rectangular water-tight box about thirty inches long, with one end a foot square, and closed by a pane of ordinary glass. The other end is slightly larger and is open. In using the "glass" the closed end is immersed in the water a few inches below the surface, when the sea bottom is distinctly visible through the glass, the water being clear as crystal.

Having discovered the position of the conch the diver leaps in and obtains it, and in a few moments is back in the boat looking for more. Some of the fishermen use a double pronged hook attached to a long staff, such as is used in sponging, and with this secure the conch instead of by diving.

When a boat load is secured the conchs are taken ashore to some convenient beach and left to die. When dead the shells are beaten against the soft sand, which loosens the flesh so it may be easily removed.

The meat of the pink conch is carefully examined for pearls, but the other varieties have no pearls.

The shells of the pink conch are scraped to remove the seaweed, serpulæ, or other incrustation, but the others are naturally pretty clean and are sold in the rough state.

The length of the cruise varies, of course, but the usual time is three or four weeks. On the return to Nassau the shells are sold to the conch dealers or merchants, who sort and pack them for shipment. The finer specimens are packed in cases with sponge clippings, but the ordinary kinds are packed in bulk or shipped loose.

Most of the exports are to England and the United States, though France takes a good many from English consignees.

The four varieties of conch which form the basis for this industry are the common or pink conch, the milk conch, and the king and queen conchs. The first, the *Strombus gigas*, is the most common, and is the well-known conch used for ornamental purposes. It is also the same formerly used for the dinner horn by many old farmers; indeed, it still does good service in that line in the far West.

The flesh of the animal is edible, making, when cooked and properly dressed, a very fair salad, as the writer can testify from experience.

The shell is used for turning into sleeve buttons and brooches, much in vogue in Naples, Italy, but for some unknown reason they do not take well in the United States. Exquisite pink cameos are cut from this shell, and are often mistaken for coral by novices.

Many tons of this shell are also used in the porcelain manufactories of France and Germany.

The milk conch is also one of the strombs and is much smaller than the pink conch. The name is derived from the milk-white color of its interior. The shell is much less fragile than the other species, and it is used in the United States for ornamental purposes.

The queen (*Cassis madagascariensis*) is a much more valuable shell than the preceding varieties. Its flat face is egg shaped and of a handsome salmon red color, being of a beautiful brownish black near the teeth. The shell of this and the king conch is very valuable in cameo cutting, and are much used for this purpose in England and France.

The king conch is of the same species as the queen, but it differs somewhat from it in having a triangular face of a brownish yellow, and the interior of the shell and around the teeth is of a purple black.

Several very handsome specimens with cameos cut in the shell may be seen in the Bethnal Museum, London, and at the American Museum of Natural History in New York.

The pearls taken from under the apron of the pink conch are either pink, yellow, or black. The pink are, however, the only valuable kind. These are of that exquisite shade of pink which gives the name to the conch from which they are taken. Many of the pearls are beautifully water lined, and this, together with their size and color, determines their worth. The lucky fisherman who has any of these pearls for sale finds a ready market for them in Nassau, where the buyers offer very good prices for the pearls, £20, or $100, is not a very unusual price, though the majority of the pearls bring a very much lower figure, of course.

The buyers export them to England, where the demand is good. They may be seen in London set in all sorts of ways, the favorite being in the form of rings, which can be bought from £2 up.

The value of the pearls annually exported from Nassau was recently estimated at £10,000, or $50,000.

The value of the different conch shells in New York is, for the pink conch, $4 per one hundred shells; milk conch, $6.50; king conch, $?5; queen conch, $20.

NATURAL HISTORY NOTES.

Old Seeds versus New.—There is a widespread impression that old seeds of many plants are preferable to new, especially in the production of double flowers. Desirous of putting his view to the test, an experimenter, whose results are recorded in a recent number of the *Revue Horticole*, undertook a series of experiments with the seeds of the camellia-flowered balsams of varying age. The conclusion arrived at—diametrically opposite to the generally received opinion—is that it is the youngest seeds which give the largest proportion of double flowers.

The Potato Grafted on the Bitter Sweet.—An experiment has been performed by M. Lambotte, the record of which, together with an illustrative woodcut, may be found in a recent number of the *Revue Horticole*. M. Lambotte tells us that in the spring of the year, while picking out some potatoes for culinary purposes, he remarked one sprouting and more fit for planting than for cooking. He had at the time, close at hand, a plant of the bitter sweet (*Solanum dulcamara*), the stem of which he cut to a sloping point, which he introduced into a hole in the potato as deftly as possible. Some days afterward the potato had regained its hardness and speedily sprouted from the eyes, the principal stem measuring more than sixty centimeters. The tuber became green, excessively hard, and developed little shoots bearing smaller tubers and rootlets. In point of fact there was a tuber growing in the same manner as it would in the ground, and only differing from an ordinary tuber in its hard consistence. Things went on in this manner till the end of September, when suddenly the leaves withered and the shoots became pendent, and the tuber gradually became soft and decomposed after its ten months' sojourn on the stem of the bitter sweet, the latter continuing its growth in the ordinary manner, unaffected by the fate of its quondam associate.

The Eggs of the Great Auk.—The numerous bones of the great auk found on the shores of Greenland, Newfoundland, Iceland, and Norway attest the former great abundance of this bird, but within the last century it has gradually become more and more scarce, and is now believed to be extinct, none having been seen or heard of alive since 1844, when two were taken near Iceland. There are but three specimens in the United States—one in the Academy of Natural Sciences at Philadelphia, one in the Smithsonian Institution, and one in the Cabinet of Vassar College. The last is the most perfect specimen, and possesses the greatest historical value, as it is the one from which Audubon made his drawing and description. The eggs of this extinct bird are also extremely rare, and it is, therefore, interesting to learn that two specimens have been recently discovered in an old private collection in Edinburgh and sold at auction. The prices realized on these two rarities were $560 and $500 respectively. The purchaser was Lord Lilford.

A Case of Apparent Insectivorism.—Professor Baillon, at a recent meeting of the Linnæan Society of Paris, read the following notes on the apparent insectivorism of a plant often seen in cultivation, *Peperomia avifolia*, of which the variety *Argyreia* is cultivated in so many greenhouses, has the leaves more or less deeply peltate. I have seen stalks on which the peltation on certain leaves was so exaggerated as to show on cross section a depth of nearly four centimeters. When the concave stalks take a suitable direction, water (principally that from sprinkling) would accumulate and rest in these receptacles, so well prepared to preserve it. Many small insects would fall into this water and be drowned. Last year, when the season was warm and when the windows of the house were often open, the number of insects was very considerable, and these, soaking in the water, gradually fell into decay, and it was remarkable that there was during this not the least sign of any putrescent odor. Those who believe in the theory of insect-eating plants may perhaps in this be led to find an argument favorable to such doctrines. They will add that the variety of colors so strikingly seen in these leaves constitutes the agent of attraction for the insects to come and be drowned. These reflections, each of a different sort, here present themselves: 1. Is it not remarkable that the exaggerated peltation of these leaves is in this case accompanied by an apparent insectivorism, and that the leaves of the plants known up to this time by botanists as carnivorous owe their sac-like, horn-like forms only to an excessive peltation of their limb, as we demonstrated in the evolution of the leaves of *Sarracenia* (*Comp. Rend.* lxxi. 630)? 2. How can it be considered as a proof of insectivorism, that plants such as the *Utricularia* grow better in a fluid containing albuminoid compounds, when other plants grow equally favorably in the same kind of fluid, and which latter are never for a moment thought of as carnivorous? 3. How do the chief priests of our science reconcile the two ideas, that the surface of the leaves of plants is unable to absorb pure water in contact with them, and that the same surface daily absorbs water charged with albuminoid substances and the like?

Albino Arethusa.—A white flowered variety of this rare and beautiful North American orchid has recently been discovered in Rhode Island by Professor W. W. Bailey. It has the yellow markings of the labellum, as in the ordinary red flowered form. In his "Wild Flowers of America," Professor Goodale states that the plant grows in bogs, with its corm embedded in peat moss, sometimes two or three inches below the surface.

CURIOUS FACTS ABOUT THE ALBATROSS.

The tracts of lower, nearly flat land of Marion Island, skirting the sea, and the lower hills and slopes along the shore, presented a curious spectacle, as viewed from the ship as it steamed in towards a likely-looking sheltered spot for landing. The whole place was everywhere dotted over with albatrosses, the large white albatross or goney (*D. exulans*). The birds were scattered irregularly all over the green in pairs, looking in the distance not unlike geese on a common.

The albatrosses were all around, raised from the ground. Their nests are in the style of those of the mollymanks, but much larger, a foot and a half at least in diameter at the top.

They are made up of tufts of grass and moss, with plenty of adhering earth beaten and packed together, and are not so straight in the sides as those of the mollymanks, but more conical, with broad bases. The female albatross is sprinkled with gray on the back, and is thus darker than the male, which is of a splendid snow white, with the least possible gray speckling, and which was now, of course, seen in his full glory and best breeding plumage; the tails and wings of both birds are of course dark.

The albatrosses one meets with at sea are most frequently birds in young plumage or bad condition, and have a rather dirty, draggled look. The brooding birds are very striking objects, sitting raised up on the nest, commonly with the male bird beside it. They sit fast on the nest when approached, but snap their bills savagely together, making thus a loudish noise. They will bite hold of a stick when it is pushed up against their bills. They need a good deal of bullying with the stick before they stand up in the nest and let one see whether they have got an egg there or no. Then the egg is seen to appear slowly out of the pouch in which it is held during incubation. It is nearly five inches long, or about as big as a swan's, and is white, with specks of red at the large end. Only one egg is laid. In most of the nests there were fresh eggs; in some, however, nearly full-grown young birds.

At Campbell Island, of the Campbell and Auckland group, the young of *Diomedea exulans* were found just breaking the shell in February, by an exploring party.*

Charles Goodridge, who was one of a sealing party on the Prince Edward Islands in 1820, and spent two years on the Croyets, says that the albatrosses there lay at about Christmas, and that the period of incubation is about three months (?). The young, he says, were wing-feathered, and good to eat about May, and did not fly off till December.†

The young albatrosses are dark-gray in plumage. They snap their bills, like the old ones, to try and frighten away enemies. The old birds never attempt to fly, though persistently ill-treated or driven heavily waddling over the ground.

Very many were killed by the sailors that their wing bones might be taken out for pipe stems, and their feet skinned to make tobacco pouches. The old males tried to run away when frightened, but never even raised their wings.

It is amusing to watch the process of courtship. The male, standing by the female on the nest, raises his wings, spreads his tail and elevates it, throws up his head with the bill in the air, or stretches it straight out forwards as far as he can, and then utters a curious cry, like the mollymanks, but in a much lower key, as would be expected from his larger larynx. While uttering the cry the bird sways his neck up and down. The female responds with a similar note, and they bring the tips of their bills lovingly together. This sort of thing goes on for half an hour or so at a time. No doubt the birds consider that they are singing. Occasionally an albatross flies round and alights upon the grass, but I saw none take wing.—*H. N. Moseley.—Challenger Notes.*

A WISCONSIN cow died not long ago, after a lingering illness, attended by a persistent cough. After her death a veterinary surgeon opened the windpipe to discover the cause of the irritation, and found in the upper part of the lung a live striped frog of ordinary size. The surrounding portion of the lung was much discolored.

* "Notes on the Geology of the Outlying Islands of New Zealand. Reported by Dr. Hector, F.R.S."—Trans. N. Zealand Inst., vol. xi., 1869. p. 75.

† "Narrative of a Voyage to the South Seas, and Eight Years' Residence in Van Diemen's Land," p. 36. By C. M. Goodridge. London: Hamilton & Adams. 1833.