Do plants have sense? Some at least have sensibility; not to light and heat merely, but to other agents that affect the higher orders of life. Narcotics paralyze and poison; sons kill them. Electricity stimulates or stuns them, as the shock is light or heavy. De Candolle placed lightly a drop of water on a leaflet of a sensitive plant. No motion followed. He touched it with a drop of acid, and on the instant the leaflets shrank and dropped. Several plants show sensibility in a marked degree, but none can rival the delicacy of the chaste mimosa, "weak with nice sense," as the elder Darwin sings. Everyone is familiar with the character of this interesting plant; how at a touch its slender leaves shrink back upon their supports, these upon the common stalk, and the stalk upon the main stem. If the extremity of one of the little leaflets be cut, the others close round it as if in sympathy. Even a simple cloud passing over the face of the sun is sufficient to change the position of the leaflets, which draw night each other as light and heat diminish. So, too, when the plant is shaken by the wind, the leaflets close c and the leaf-stalks droop. They approach each other in the same way at nightfall; but though closed and seemingly asleep, they shrink still more closely together when touched. This semblance of sleep is not confined to sensitive plants. It is an ordinary manifestation of sensibility among vegetable growths. The common chickweed furnishes a beautiful instance. Every night its leaves come together in pairs so as to inclose between their upper surfaces the tender germs of the young shoots. The position assumed by leaves in his nightly "sleep," as Linnaeus called it, is governed by their shape and character. With compound leaves the closing is most distinctly marked. In the oxalis the leaflets lend toward the common stalk, resting their under surface against it, after the manner of the mimosa. Sweet peas and common beans fold up their leaves till one supports the other. Some plants roll their leaves together in the form of a trumpet; others close them so as to form tiny boats. In the mallows the simple round leaves are convex or concave, according to the time of day. Linnaeus was the first to study the cause of this phenomenon, which was at first attributed to change of temperature. He carried certain of his garden plants into his greenhouse, where the temperature was uniform, but it made no difference. They yielded to the drowsy god as submissively as their companions in the open air. Absence of light, not lack of heat, seemed to produce the change. Young and tender leaves were more affected than the old and tough, which fact led him to believe that the design of nature in establishing such sensibility to darkness was to provide for the protection of those plants most sensitive to cold. But there is something besides absence of light that has to do with these periodic motions. De Candolle experimented with sleeping plants by means of brilliant artificial light. "When I exposed these plants to light by night, and placed them in obscurity by day," he says, "they opened and closed their leaves at first without any fixed rule; but after a few days they adapted themselves to the new condition of things, and accepted night for day and day for night; opening their leaves with regularity at night, which now brought them light, and closing them during the daytime. When I exposed them to continuous light, day and night, they had, as in the ordinary state of things, alternate seasons of sleeping and waking; but these seasons were somewhat shorter than in nature. When I exposed them to continual darkness, they also slept and remained awake alternately, but the intervals were very irregular." Other experiments show that sensitive plants can become more or less indifferent to other excipients than light. Desfontaine observed this on carrying one in a cart. At the first movement it closed its leaflets, and all its leaves shrunk. But by degrees, as the cart rolled on, the plant seemed to accustom itself to its new condition; its leaves rose once more, and its leaflets unfolded. If, after stopping awhile, the cart started again, the delicate plant felt the influence as at first, but after some time it seemed to recover once more from its fright, and showed again all its beauty to the day. It is probable that the fibers of the plant lose their contractile power, as muscular fibers do on protracted excitation, the susceptibility reappearing after a season of rest. The periodic sleep of plants—it cannot be called nightly sleep, since many love darkness and unfold their petals only at night, the diurnal sleep of plants we might call it, has, its counterpart in an annual rest. In temperate latitudes this occurs in winter. At this season all perennial plants, except the ever-greens, stand apparently lifeless. Returning spring reawakens their sleeping forces, and clothes the world once more with living green. Then the sun pours down his vivifying rays, verdure springs up, and all nature seems to celebrate the new birth with joy and brightness. The habit of seeing each year repeat the same marvel—the same resurrection from death to life—keeps us from appreciating its grandeur, and from recognizing in it the prodigious forces at work. But if we contrast for an instant the aspects of winter and spring, we cannot fail to be surprised at our indifference to these marvelous changes. In tropical regions the period of life-in-death is the season of extreme heat. For a time all things are parched and dead. Vegetation withers on the arid plains, and even in moister regions droops under the burning rays of the unclouded sun. When the rainy season returns a sudden transformation occurs, and plant-life flourishes with a luxuriance that amazes the visitor from temperate climes. Upon the banks of tropical lakes and rivers, says Denis, "the heat of the sun, calling into activity the beneficent moisture of these vast reservoirs, produces gigantic forms of vegetation. Trees
which elsewhere grow with difficulty, rise here majestically and embellish the banks at the same time that they attest their fertility. The Amazon, the Ganges, the Niger roll their waters through vast forests which, being replaced from age to age by new growth, have always resisted the efforts of man. It seems indeed that Nature chooses the banks of these immense rivers to display here a magnificence unknown in other places. I have noticed in South America, that the trees, rising to an immense height near the rivers, give a peculiar aspect to the forests. Not that in such places Nature presents an appearance of absolute disorder; on the contrary, it seems as if its strength and its grandeur have specially enabled it here to display a certain majestic regularity in vegetation. The trees, towering up to a height that wearies the eyes, do not penitent feeble shrubs to grow underneath. But the vault of the forests is raised higher; the enormous trunks of the trees which support it form immense porticos and spread out their branches with majesty. They are covered at the top with a multitude of parasitical plants, which seem to claim the air as their domain, and which proudly mingle their flowers with the very top branches. Here often upon the immense fig-tree, which is itself unpretending in appearance, a flexible lian will twist spirally around it, covering it with garlands, and uniting it to all the great plants that grow around, till at the utmost top it seems to defy the dazzling splendor of the noontide before it once more descends to embellish the mysterious recesses from which it first sprang. In the vast forests of South America there exists a harmony perfectly in accord with the phenomena presented to the view: all is grand, imposing, and majestic. The songs of the birds and the cries of the different animals have something savage and melancholy in their utterance. The, brilliant and sustained cadences, cheerful chirpings, lively and gay modulations heard in temperate zones are here less frequent. They are replaced by songs more grave and measured. Strange sounds fill the listener with profound astonishment. Now a voice seems to imitate the far-sounding blow of the hammer upon the anvil; then there falls upon the ear a sound which resembles the sudden snap of the strings of a violin. Often at sunset, when the birds have ceased their cries, there comes from the highest tree-tops a doleful sound that fills the unfamiliar hearer with awe. Mournful tones like those of the human voice solemnly announce that the guaritas (Simia Beelzebub, in the expressive terms of science) are beginning their assemblies to celebrate the return of night. Their prolonged, lugubrious howls have gained them the reputation of doing diabolical homage to Satan. At times the jaguar or the black tiger joins in the concert, filling the forest with a sound more majestic than pleasing; and when in addition the wind blows violently, bowing the lofty summits of the trees, making the palms sigh as they bend low and mingle their moans with the rustling of the lianes, the chorus becomes inexpressibly awful. But it is in its aspect of usefulness that tropical vegetation is most interesting to us. For multiform and manifold service to man two families of trees stand foremost, the Bread fruit family and the family of Palms. More than fifty species of trees, all tropical, are included in the first, and nearly two hundred more in the closely allied Fig-family. The most valuable of the Bread-fruit trees was discovered by Captain Cook, on the Island of Otaheite, whence it was disseminated through Oceanica, and among all the colonies of England in the tropics, by the hand of the unfortunate Captain Bligh of the Bounty. The tree grows to the height of thirty feet, its branches forming a large round top. The leaves are large and lobed, the wood yellowish, soft, and light. The fruit (so-called) consists of an oblong spongy seed-receptacle, the size and shape of a large melon. The thick green rind incloses a pulp which is white, farinaceous, and slightly fibrous during the month that precedes maturity, but changes in color and consistency and becomes yellow and succulent when ripe. Under cultivation the nut-like seeds disappear, leaving a solid mass of excellent bread. The tree ripens its fruit during eight consecutive months of the year. During the four months when the trees are not bearing, the natives make use of a paste preparation of the pulp, which keeps well. Wallace, the explorer of the Malay Archipelago, describes as a real luxury the bread furnished by this remarkable tree. He found it first at Amboyna, where many trees had been planted. The fruit is baked entire, he says, in hot embers, and the inside scooped out with a spoon. "I compared it to Yorkshire pudding; Charles Allen (my assistant) said it was like mashed potatoes and milk. It is generally about the size of a melon, a little fibrous toward the center, but everywhere else quite smooth and puddingy, something in consistence between yeast-dumpling and batter-pudding. We sometimes made a curry or stew of it, or fried it in slices; but it is no way so good as simply baked. It may be eaten sweet or savory. With meat and gravy it is a vegetable superior to any I know, either in temperate or tropical countries. With sugar, milk, butter, or treacle, it is a delicious pudding, having a very slight but characteristic flavor, which, like that of good bread, one never tired of. Closely akin to the bread-fruit tree is the Palo de Vaca, or cow-tree of Venezuela, which provides a liquid nourishment as useful as bread. As all the milky juices of plants known to Humboldt were acrid, bitter, and more or less poisonous, he received with credulity the first reports of this peculiary tree. He found on investigation, however, that its virtues had not been overrated. "When incisions are made in the trunk of the tree, it gives forth a glutinous milk, rather thick, free from all acidity, and exhaling a very agreeable odor. We were offered some of it in calabashes, and drank considerable draughts of it both that night before retiring to rest, and early in the morning, without experiencing any unpleasant effects. The viscous quality of the milk was the only thing unpleasant about it. Under chemical analysis the tree milk shows close affinity to animal milk; butter is represented by a beautiful and abundant wax, caseine by a substance not unlike the brine of blood, and the serum by a watery liquid containing a little sugar and a small percentage of the salt of magnesia. Placed over the fire, vegetable milk undergoes the same modification as animal milk. A cream forms on the surface and cannot easily be taken off; the milk boils up and shows a tendency to run over from the vessel which contains it. If the cream is removed as it forms, and a steady heat is kept up, the milk gradually assumes the consistency of paste; then appear upon the surface oily rings, like those which come to the
surface of cream that has been upon the fire for some time. Finally, this fat part envelops the whole of the posset, which then diffuses an odor similar to that of roast beef. Some forty years ago, a speculative Englishman, impressed by Humboldt's description of this vegetable mother, thought to confer a great blessing upon his countrymen and turn an honest penny for himself by naturalizing the tree in England. He imported, as he thought, a thousand, but they did not take. English tree-cultivators were well aware of a fact that did not occur to the speculator, which was that tropical trees could be grown in England only as hot-house curiosities; and then, to add still more to his discomfiture, a cruel botanist proved that his dear-bought trees were not cow-trees at all! Of the same family as these life-sustaining trees is the beautiful but treacherous upas-tree of Java, Borneo, Sumatra, and the Celebes. In the low valleys of these islands, surrounded by the most brilliant and majestic forests in the world, this splendid tree flourishes, the trunk free of branches to a height of perhaps eighty feet, and bearing aloft a superb crown of foliage. But woe to the traveler that touches the milky juice which the bark is ever ready to spurt forth. It is one of the most acrid of vegetable poisons. The deadly habitat of this tree has greatly helped to increase its evil reputation. In many places where the trees abound, the deep valleys (ancient volcanic craters) are filled with a dense, life-destroying atmosphere of carbonic acid gas, which rises from the soil, and which the natives attribute to exhalations from the trees themselves, telling fearful stories of their far-reaching virulence. Closely allied to this family, as has been noticed before, is the genus Ficus, the fig-trees. Of these the Ficus Elastica, the milky sap of which produces india-rubber, is, next the unaligned gutta-percha tree, the most useful of milky plants. Belonging to the same family are the Mediterranean fig-tree, the sycamore-fig of Palestine, the wide-spreading Banyan-tree, our own hedge plant, Osage orange, and the several varieties of mulberry-tree. The "dynasty of Palms," to use the words Linnaeus, reigns over the tropics, and occupies the highest rank among plants. For richness of foliage, elegant form, and varied serviceableness, they are unsurpassed. Whole nations are fed and clothed and housed sometimes by a single species. In their form, appearance, and structure, these trees differ essentially from those of temperate regions. The date-palm-the prince of palms-rises, a single stem, straight and slender, to a height from fifty to seventy-five feet, perfectly bare, and unbroken by a single branch or leaf: At the top an immense plume of feathery leaves, growing in a bunch, forms the capital of the vegetable column. This tuft may be ten or twelve feet high, and at the roots of the long leaves the fruit appears. This is pre-eminently the tree of the desert. It grows in nearly every oasis, and by its refreshing shade, its fruits, its milk, and its general usefulness, it has won the affection of the natives and the admiring sympathy of all travelers. This single tree has peopled the desert. Its fruits are in demand throughout the whole world, and sufficiently abundant to make the Arab not only independent, but affluent. An oasis of palms is a veritable paradise in the burning waste. The eminent botanist, Martins, describes one that he discovered accidentally during his passage over the Eastern Sahara. "The boundless desert," he says, "was stretching out before me. The sun, high-above the round horizon-round as we see it on the ocean when out of sight of land,- seemed the only living thing in the midst of death. All at once I perceived the summits of palms, the trunks of which were not yet visible. I thought it an illusion-a mirage. We drew nearer-the tufts became more distinct, but the trunks could not yet be seen. The caravan halted near a well. I hastened toward the palms and find they are planted at bottom of a trough nearly 24 feet in depth. The sand had been raised on all sides; a feeble palisade of palm-leaves helped to keep it up on one side, on the other sides crystals of sulphate of lime of all sizes and shapes, arranged as we see them in collections of minerals, helped to fix the shifting sand. At the bottom of the trough the dates were planted irregularly; but this was not the slender, elegant palm of the painter. These were trees with short, thick trunks of cylindrical form, looking for all the world like the short, massive columns of an Egyptian temple, or of a Moorish mosque. Surface roots, joining the lower part of the trunk so the soil, formed a pedestal for these trees, and the lofty tufts on high resembled exactly the vast colonnades of ancient temples. In the evening, when penetrating under the somber vaults of these palms, I could not resist a feeling of awe; for these palms, majestic and immovable at the bottom of their crater of sand, were a fit emblem of African civilization, unchanging amid the ever-changing outside world. What the date-palm is to the Arab, the cocoa-nut palm is to the natives of the coasts of tropical Africa, India, and the East Indies. In illustration of its marvelous usefulness a pretty story is told of an exhausted traveler, who, seeking refreshment at an Indian's hut, was astonished by his kindly reception, and still more by the rich variety of food and drink set before him. He asked in amazement how, in the midst of such a desert, the hospitable host had come by all those articles of use and luxury. "I get them from my cocoa-nut trees," answered the Indian. "The water which I gave you on your arrival was drawn from the fruit before it had become ripe, and sometimes the nut contains three or four pounds of it. This palatable nut is the fruit at its maturity; this milk, which you find so pleasant, is drawn from the same ripe fruit; this delicate cabbage is made from the top leaves, of the tree; but we do not often indulge in this, as the tree, when its top is thus cut off, dies soon after. This wine, which pleases you so much, is also got from the cocoa. We make an incision in the tender flower-stalks and a white liquor flows forth, which we gather into vessels and which is known as palm Wine. Exposed to the sun it becomes sour and turns into vinegar. When we distill it we obtain this excellent brandy, which you have tasted. The same juice has also furnished me with the sugar which I needed for preserving the nut. Finally, all these dishes and utensils which we are using on the table are made from the shells of the cocoa-nuts. This is not all-my house even I owe to these invaluable trees: their wood has enabled me to build my cabin; their leaves, dried and interwoven, make the roof; and these same leaves made into a parasol protect me from the sun when I walk out. These clothes which I wear are woven with the fibre-threads got from the leaves. Those sieves were ready-made in the parts of the tree
from which the leaves spring, and these mats come from the same source. These same leaves, woven into a tissue, make sails for our ships. The coarse hair which covers the nut is used for caking ships, as it lasts forever and swells when exposed to water. Cables, ropes, and twine are all made of the same material. Finally, the delicate oil with which many of these dishes were seasoned, and which burns in my lamp, is obtained by pressing the freshly gathered fruit. As the traveler was about to leave the cabin his host said to him: "I wish to write to a friend in town; be good enough to carry my letter for me, pray." "Most certainly; and is the cocoa to furnish you also your writing materials?" "Certainly," answered the Indian; "from he sawdust of the branches I have made his ink, and from the leaves this parchment, which formerly was exclusively used for public documents and records of important events. Among the precious trees that flourish in tropical West Africa is one that the natives call their friend. It is the magnificent Elaiis-Palm, from the fruit of which the palm-oil of commerce is obtained. It is probable that the poor Indians will find it a friend worthier of their esteem than they have yet imagined, since it bids fair to prove a powerful giant in changing the political and social condition of the race, the kings and chiefs finding it more advantageous to employ their subjects in preparing the oil than to sell them as slaves. The sago-palm of the East Indies ranks, if it does not outrank the date-palm as a food-producer. It is truly an extraordinary sight, says Wallace, after describing the process of making sago-bread, to see a whole tree-trunk, perhaps twenty feet long and four or five in circumference, converted into food with so little labor and preparation. A good-sized tree will produce thirty bundles of thirty pounds each, and each bundle will make sixty cakes of three to the pound. Five of these cakes are a day's allowance. A single tree will thus supply a man with food a whole year. The labor to produce, this is very moderate. Two men will finish a tree in five days, and two women will bake the whole into cakes in five days more; but the raw sago will keep very well, and can be baked as wanted, so that, as he estimates, a man in ten days may produce food for the whole year. If he has to buy his tree and pay for the labor at the usual rate, the total cost of his year's food will be about twelve shillings. At Amboyna, where Wallace got his first taste of the delicious bread-fruit, the sago-palms spread over hundreds of acres, furnishing food almost for the asking—a very paradise for the lazy. Here too is the classic land of spices, the home of the nutmeg, the clove, and the pepper-plants. Near by lies the Island of Banda, the largest nutmeg-garden in the world. Almost the whole surface is planted with nutmegs, grown under the shade of the lofty Canary trees. Few cultivated plants," says Wallace, are more beautiful than the nutmeg-trees. They are handsomely shaped and glossy-leaved, growing to the height of twenty or thirty feet, and bearing small yellowish flowers. The fruit is the size and color of a peach, but rather oval. It is of a tough, fleshy consistency, but when ripe splits open and shows the dark brown nut within, covered with the crimson mace, and is then a most beautiful object. Within the hard shell of the nut is the seed, which is the nutmeg of commerce. Less useful, though not less beautiful, is the Bourbon-palm, a native of Southern China, but now common throughout India. The spathe inclosing the fruit of the regal palm the Amazon is hard and woody, and shaped like a boat, sometimes five feet long by two wide. The natives use these spathes for a variety of purposes—for water-vessels, baskets, and cradles. The spathes of the elegant Raffia-palms of Madagascar and the Mauritius are put to similar uses, as shown in the companying illustration. This tree is chiefly remarkable for its large, pendulous branches of fruit, twelve to fifteen feet long, weighing from two hundred to three hundred pounds. On the same Island of Madagascar is the singular palm which travelers in grateful adoration have called the Traveler's Tree. The expanded foot-stalks of its large white leaves clasp round the trunk, forming a cavity usually filled with a limpid and refreshing supply of water, which gushes out in a jet when the leaf-stalk is pierced with a spear. Another native of this little-known island has always a cup of cool water to refresh the thirsty traveler; it is one of the glorious families of Nepenthes, which has its representatives also in India, China, and Australia. These husband the precious liquid: not so the lavish weeping-tree (Caesalpima plurivosa), from whose tufted foliage, if travelers speak truth, distilled water falls like copious rain. Humboldt represents the banana as everywhere found in company with the palm. More productive than the date, its fruit more easily prepared for eating than that of the bread-tree, it feeds the races of the tropics at the least possible cost of labor. Its luscious fruit is well known in our markets. Weight for weight it is inferior to wheat as nutritive food, but its productiveness is to that of wheat as 133 to 1. A single acre planted with bananas will furnish food enough to support fifty people. The plant grows yearly from its perennial root to the height of twelve feet, bears its one bunch of fruit, and then dies. These clusters frequently contain one hundred and fifty separate bananas, weighing in all upwards of sixty pounds. In Java the bananas have a more vigorous growth. M. de Molins describes a visit to a forest of these wonderful trees: "After a journey of an hour and a half through the open country, we found ourselves in the jungle. It was a confused mass of vegetation, in which, however, the wild banana, with its leaves a pale green on one side, and on the other spotted with red and brown, seemed to be the most prevalent tree. We steered our way through this sea of plants of all kinds, and admired in it above all the tree-ferns, with their arborescent stems and graceful and regular leaves—those marvelous ferns which vie equally with the flowers by their exquisite form, with the birds by their beautiful color, and with the trees by their imposing height. Suddenly the native guide, who was aware of the object of the expedition, stopped and called out, 'Look here!' "Where?" asked M. de Molins. "There," said he, "is the first of the giant trees; the one you saw from town, sir?" He pointed to a kind of tower adorned at summit with branches and flowers, a structure that no foreigner would ever have taken for a tree. "This is only a small one," he said, "but in going higher up you will find trees of larger and larger growth. In fact, although the specimen before his eyes seemed to be almost supernatural in its size M. de Molins saw, as he proceeded, that the words of the guide were true. 'I am not able," he says," to express the sense of awe excited in me by the sight of these colossal-veritable patriarchs of the
forest, many of which no doubt had witnessed the earliest creations of nature, and belonged to epochs when the earth was still in her first vigorous youth; now they surrounded me their gigantic trunks, and shaded me with the foliage of their enormous branches. More monstrous and ancient, however, these trees of Java are some of the Baobabs of Senegal. Humboldt called one them the "oldest organic monument of our planet." Its girth is nearly a hundred feet, and its age, as calculated from its rings of annual growth, not less than 5,000 years. These immense trunks of these trees are led with a vast number of horizontal branches, each of which would be a monstrous tree elsewhere. As the lower branches droop nearly to the ground, they give the whole tree the appearance of a perfect hemisphere, 100 feet in height and 400 feet in circumference. In the country of the Senegal these mammoth growths are venerated as sacred monuments. Their hollow trunks are used by certain tribes as camping-places, as public assembly halls for tribal discussions, and sometimes as stables. The space that some of them inclose is said to be sufficient to accommodate more than two hundred men. By certain tribes these living vaults are used as places, of sepulchre for poets and musicians, not in honor, but through superstitious fear. They believe that these gifted brethren of theirs hold communion with spirits, and they have such horror of their remains that they will not bury them in the earth that brings forth food, nor in the channels of rivers. The use of hollow trees for halls of council and worship is not confined to Indian tribes. At Allouville, not far from Paris, there stands, in the center of a graveyard, an ancient oak thirty feet in circumference at the ground. The interior of its decayed trunk was fitted up as a chapel as early as the seventeenth century. Above the chapel, as it were in the second story, a rustic hermit lives, while still higher in the tree is a belfry surmounted by a cross. At Montravail is a still more ancient oak. The trunk, nearly thirty feet in diameter, is merely a shell. The interior forms a hall from nine to twelve feet in diameter, and nine feet high. A circular bench has been cut out of the live wood for the accommodation of visitors, and around the table in the center a dozen people can sit comfortably. Ancient as these trees are, they are but children compared with the Baobabs above described, or the gigantic red-woods of our Pacific Coast. The only trees that approach the latter in age and height are the marsh-gum trees of Australia and Van Diemen's Land. The tallest of these trees thus far described stands 300 feet high, 200 feet from the ground to the first branch. Its diameter at base is 28 feet. Unlike the timber of the redwood, that of the gum-trees (Eucalypti) is heavy and intensely hard. Of curious flowers we have no room to speak; yet we cannot pass unnoticed the two giants of the floral world, the Victoria Lily and Arnold's Rafflesia, the one a broad-leaved water-plant, the other a leafless parasite. The Victoria lily, a native of Guiana, a magnified edition of our familiar white water-lily. The leaf-blades are circular and turned up at the margin two or three inches. They rest on the surface of the water like shallow trays, from six to twelve feet in diameter, and are capable of supporting two or three hundred pounds. The flower, often more than a foot across, has its outer petals white and turned downward, the inner rose-colored and erect. The petals are more than a hundred in number, and as the flower floats on the water it appears like a beauti ful rose-colored crown resting on a circular range of snowy and gracefully curved petals. It emits a powerful and pleasant fragrance. The Rafflesia is its opposite in every respect save size, and is at once the most gigantic and most disgusting flower yet discovered. It is the chief of a family of fleshy, fungus-like, leafless, stemless parasites, growing on roots, trailing stems, and branches of trees. It belongs to the Island of Sumatra. When young it resembles a firm red cabbage. Then expanded it measures a yard across, and consists of five fleshy lobes, of a spotted or mottled red color, with a central cup-like dish capable of holding ten or twelve pints of water. Its weight is fifteen pounds. Its odor, like that of putrid flesh, will probably prevent its ever becoming a popular subject of cultivation.