

will be considerably facilitated, without interfering in the least with its quality.

But as experience and judgment are required to put this method in practice, it will be best to begin with a small quantity.

Success will follow good management in this branch, as well as in any other of horticulture or agriculture, and more so here, as these principles correspond precisely with Nature.

## ON THE PRODUCTIONS OF THE IONIAN ISLANDS AND ITALY.

BY S. B. PARSONS, OF FLUSHING, NEW YORK.

We landed opposite the little town of Samos, on the island of Cephalonia. Our ride up the mountain, from this place, was full of interest, with delightful glimpses of the coast and sea, patches of vines, with the peculiar ant-hill culture noticed first in Zante, and wild flowers and trees, many of which were new to us. Cyclamens, anemones, and iris were abundant. The *Quercus ilex*, or holly oak, growing in the plains of large size, became dwarf as we ascended, until, at the greatest altitude, it creeps like a vine upon the ground, in large rich masses, with very small leaves. Although flourishing here in the snow region, it has not proved hardy about New York, but would doubtless be so wherever the *Quercus virens*, or live oak, will grow. With its rich, glossy, holly foliage, it would be a valuable addition to our ornamental trees. That which most excited our admiration, however, was the *Ceratonia siliqua*, or carob tree. It is round headed, evergreen, with leaves placed and formed like the locust, but thick and glossy as the *Pittosporum*. It bears a pod, which is eaten by cattle, and is used largely for government horses in Malta. In Sicily, a spirit is distilled from it. It grows wild everywhere, and is said to be the same tree which furnished food to John the Baptist. A superior variety is cultivated by grafting upon the wild species. It would doubtless succeed in our extreme southern States, for we found it on high positions, and in the snow region. Some seeds for distribution will be forwarded to the Patent Office, and it will be found worthy of careful trial, combining, as it does, great beauty with the production of a useful article of food.

At one of the villages, we found the women crocheting capes and sleeves with a thread made from the fibers of the aloes. The fabric was light, glossy, and beautiful; and the fiber could readily be cultivated in our southern States.

The culture of grape and currant, on Mr. Pana's estate, is very thorough. It was pleasant to notice his frank, kind manner with his laborers, and their respectful, ready answers. He is said to be unequalled on the island for the thought and intelligence which he gives

to his estates. His gardens were full of oranges, pears, Japan medlars, grapes, and quinces, while roses were blooming everywhere.

We wished to ascend the Black mountain, to see the noble specimens of *Picea cephalonica*, which are found here only, and took mules up the almost precipitous sides, among piles of rocks and stones, with a few flowers struggling from among them, and very little vegetation, except mosses and the dwarf *Quercus ilex*. After some hard work, we reached the forest of pines, and, passing through a part of it, arrived at the government cottage, where rangers are kept to protect the wood. The sight of the trees fully repaid us. Here were superb specimens of *Picea cephalonica*, fifty or sixty feet high, growing where they had abundant room to develop, straight as an arrow and symmetrical as a pyramid, with the rich, glossy foliage peculiar to the species. Some of the specimens had trunks three feet in diameter, and covered as much ground as a large live oak in Florida. As the tree is perfectly hardy near New York, we were anxious to procure some seed, but looked in vain for cones. One was brought us by a ranger, but the seed was all worthless. We could now readily understand why it is that the French and English have been unable to procure this seed; and that the tree is still a rare one in England, notwithstanding the great rage there for all fine coniferæ. From the overhanging rocks, nearly three thousand feet high, we caught a superb view of the island and sea, as the clouds rolled away below us for a few minutes. The barren peaks loomed up, white with limestone; rich olive groves and small villages dotted the plain; and the sea, winding in among the islands, gave the coast many little coves with picturesque effect.

In Cephalonia, the sides of the mountains below the snow line are planted with vines on the steepest declivities. The whole ground is white with small pieces of limestone, and these are often a foot deep. Among them the vine is planted, and one can scarcely conceive how great must be the change, on the appearance of vegetation, from their present white barrenness to the living green of the new leaves. No soil was to be seen on the surface, where the vines had not yet been touched with the hoe. On digging down there is found a rich-looking, bright red soil, called *terra rosa*, which is sometimes used for mortar, and is evidently full of iron. In some places the vines were planted in water-courses, and much earth had been washed away from the roots. These are said to produce the best wine. It is evident from their experience in Cephalonia that the vine thrives well with plenty of stone and surface water. We noticed many fossils, and passed a fathomless lake two thousand feet above the sea. The whole road down the mountain was full of glimpses of beauty. In the valley we again met the luxuriant vegetation which this climate and soil give.

Cephalonia is not so highly cultivated as Zante, but its specialties are the same—currants, grapes, and olives. We saw no cows on the island, and but few oxen, of inferior breed, imported from Morea. There are few horses, and those of inferior character. Fish are plentiful and good. Lemons and oranges are abundant, but not exported. The blood-oranges are the best, and we could hear of no insect upon them. They have a singular mode of propagating the lemon, in order to insure the same variety. A branch, two or three feet long, is buried

in the ground, in a sloping direction, the upper end being six inches below the surface, and several inches of the lower end left out of the ground. In other words, it is a cutting reversed. That part above the ground sends up a shoot which grows with great rapidity, while the part below remains dormant or decays. Japan medlars grow here of large size, and are said to produce fine fruit. Currants are produced in large quantities, but with the exception of those of Mr. Pana, the cultivation is not equal to that of Zante.

Olives are cultivated by cuttings, and also by grafting. Twenty-five thousand barrels of oil are made annually. The harvest is from October to December, inclusive. The ripest fruit is the richest, and the best is grown on the hills. Five to forty bushels are produced by a tree, and one bushel will make two gallons of oil.

Near Lixuri is a heavy gray argillaceous soil, and all along the coast are numerous marshes, which could be easily drained and thus rendered extremely fertile.

The caper grows wild, but is never prepared for exportation. A list of about two hundred species of plants and trees found in Cephalonia was obtained, which, if desired, will be furnished to the department. Of these, *Salvia officinalis* is used for asthma, *Colutea arborescens* instead of senna leaves, (this is hardy near New York,) and *Phytolacca*, applied externally, is considered a specific in cancer, producing excessive pain and inflammation, and curing in six or eight weeks.

Orange trees, the size of full-bearing apple trees, and filled with fruit; Japan medlars, fifteen feet high; Portugal laurel, of the same height; large and beautiful specimens of *Lauristinus*, in full bloom, (and this in January;) pride of India; immense cactus and aloes; large acacias; a sort of *Gleditschia*, the pods of which are sold in the market; date palms, myrtle, pine, cypress, and olives, clothe the valleys and hills. The olives, unlike the Italian, were very large and spreading, and their trunks split and perforated, often to such a degree that one wondered where vitality could exist. The French cut down most of the finest trees during the rule of the first Napoleon, and after the island was delivered to the English, in 1815, the government offered a shilling bounty for each tree planted, hoping thus to encourage their growth. It was partially successful, and there are now a great number of fine trees upon the island. The only kind grown is the small variety, for oil. A large variety, used for pickles, is produced upon the adjacent island of Paxos.

Corfu has a great abundance of rich soil, but is not under good culture. The ruinous *metayer*, or contract system, prevails here, and few cultivate their own lands. They are let out on short leases, for one third or one fifth of the produce. For want of intelligent management, the olive and vine, of which three fourths of the culture consist, are very much neglected. The vine is of the poorest quality, while the olive trees are too thickly planted for ventilation, and never regularly pruned nor dug. Instead of being carefully picked, the fruits are allowed to fall, from October to April, and many are half-rotten before being pressed. Sometimes they are stored and salted, until a more convenient time for manufacture. The ripe olives make better oil, but not of such fine appearance as the unripe. The trees

blossom in April and ripen in October, when the fruit harvest begins. The soil is a very rich, stiff, tenacious clay, retentive of moisture, and interspersed with stone and rock, of limestone and silex. Arable land bears a small proportion to woodland and pasture.

*Quercus aegilops* is found in the mountains, and its acorn, called *balania*, is sometimes used for a dye-stuff. Figs, pomegranates, apricots, almonds, plums, peaches, and melons abound, and there is some culture of the cereals. Oranges fruit and flower together through all the year. Apricots, almonds, plums, and peaches flower in February. Peas, beans, potatoes, and cherries ripen in April. The hay harvest is in May; that of barley, oats, wheat, and flax in June. Indian corn and millet generally ripen in August, but sometimes, in bad years, not until September or October. The vintage begins the latter part of September.

The following table, obtained from the garrison librarian, will give the best idea of the temperature. It is the monthly average for ten years:

|                      | January. | February. | March. | April. | May. | June. | July. | August. | September. | October. | November. | December. |
|----------------------|----------|-----------|--------|--------|------|-------|-------|---------|------------|----------|-----------|-----------|
| Maximum .....        | 58½      | 59        | 64     | 70     | 79   | 87½   | 91    | 88      | 81½        | 77½      | 68½       | 62        |
| Mean .....           | 47       | 48        | 51½    | 57     | 65½  | 72½   | 77½   | 76      | 70         | 65½      | 57½       | 49½       |
| Minimum .....        | 36       | 36        | 40     | 44     | 52   | 58½   | 64    | 63½     | 58½        | 53       | 44½       | 36        |
| Inches of rain ..... | 7.40     | 5.27      | 3.74   | 1.69   | 0.69 | 0.70  | 0.23  | 1.36    | 3.17       | 5.86     | 7.25      | 5.47      |

In 1839, there were 17 inches fell in November.  
In 1842, there were 19 inches fell in January.

There are no animals peculiar to Corfu. Pasture is scarce, and cattle are brought from Albania. Dogs are reared with great difficulty. The birds most common are hawks, owls, crows, partridges, quails, woodcock, snipe, plover, wild duck, and pigeons, the last in large quantities. Eggs are abundant, and good butter and cheese are made from goat's milk. The fuel is wood, charcoal, and *ciosto*, or refuse from the oil mills. The peasants are industrious and thrive well on their daily allowance of food, which is two pounds of coarse bread, seasoned by a few cloves of garlic, with a little weak wine. Meat is almost an unknown luxury with them, although we noticed in the market some fine turkeys and chickens, for the use of the wealthier classes. Among the peasants are several curative practices which they think specifics. They treat the pip in fowls by removing the crust on the tongue, and then making them swallow it in oil, which purges copiously. Convulsions in goats are cured by a seton thrust through the cartilage of the nose. Setons of green *hellebore* are inserted in horses for pectoral diseases. To prevent hydrophobia, a paste of *verbascum* and *cantharides* is given dogs. *Teucrium tincture* is used for intermittent fevers. Excellent honey is made, and *Melissa officinalis* is cultivated for the bees. *Organum vulgare* is used for dyeing wool purple, and *Juncus acutus* is grown for the manufacture of mats and cordage, but too limited in extent to afford any opportunity of examining its culture.

We cannot hear of any insect upon the orange or lemon. The olive appears to be infested by an insect, which caused knots upon the limbs, similar to those which grow upon our plum trees. There is also an insect, something like the curculio, which destroys the kernel of the olive. They are sometimes collected and destroyed by beating the tree. There are also knots upon the olive similar in character, though not in shape, to the knees of the cypress, which are so much dreaded by travelers in our southern swamps. These are about the size of two hands, and are planted to produce young trees. It is difficult to obtain them in any quantity, on account of the unwillingness of proprietors to have their trees mutilated. The olive grows fast in a warm climate, but very slow in its northern limit, which is about the latitude of Lyons. Those from the north, would doubtless be most successful in the United States. The Lucca oil is considered the best, from the fact that a superior quality is made from trees grown in high situations, where ice is often found. Slopes of our Alleghanies present favorable sites for this culture. The high lands are also esteemed best for vines, and produce the finest wines, although the plains yield more abundantly.

Near Catania is a highly-cultivated region, with vineyards of great extent, and large fields of grass, wheat, flax, lupins, &c. The vines were about four feet apart, and men were plowing between them both ways, while others, with hoes, were drawing the earth away from the roots, as in Cephalonia. Many of the plants were of great age, with stems three or four inches in diameter, and each branch pruned down to one or two eyes. Orchards of lemon and almond trees were there, and the earth drawn from their roots, laying bare a circle sometimes ten or fifteen feet in diameter. The soil is decomposed lava, black, like peat, even on high lands, and must be wonderfully fertile. In many places dykes were formed to catch the rain and keep it upon the vines as long as possible. We crossed many beds of mountain torrents several hundred feet wide and running into the sea. Near Catania an immense stream of lava, a mile wide, is piled up in masses, upon which nothing will yet grow, except here and there a cactus, the acrid nature of which is said to aid in disintegrating the mineral.

As we approached Catania there were evidences of higher cultivation, and pleasant-looking country houses, with their gardens, were frequent. Fields of mustard, with their light and vivid green, had a growth of a foot even thus early in February; indeed, all the vegetation evinced the richness of the soil and the tropical nature of the climate.

Oranges and lemons were abundant, and we occasionally ate some Indian figs, which were pleasant, but rather too sweet. The sharp spines with which they are covered render gloves necessary in handling them. The best fruit we found here were some delicious pears, sold at a cent each, and the Limoncelli apple, which grows upon the slopes of Mount Etna, and has a delicate sub-acid flavor.

In the vicinity of Palermo we visited the agricultural school, commenced in 1848 under the private endowment of the Duc Castel Nuovo of \$5,000 per annum. The director receives \$500 annually, the chaplain, who also teaches, \$225, and the Lancasterian teacher \$90. It is

connected with 130 acres of land, composed of red calcareous soil, alluvial and rich. The plantations of manna and saffron were the most interesting. The ash trees for the manna were planted ten feet apart, and the bark on one side was full of incisions, from which the gum had issued. There were good plantations of oranges and lemons, but it was too early to see their growing crops. The building is Grecian, of very tasteful design, with bed-room, dining-hall, and school of ample size. A very fine collection of 230 varieties of the woods of the island was shown us. The ornamental grounds are tasteful, with trimmed cypresses, seventy years old, and walls painted with good landscapes, above which rose at a distance the real mountains. A flower-garden, in the French style, a statue, and groups of shrubs, aided the effect of the scene. There are twenty-six pupils, four of whom are charity, the others paying about fifty dollars a year, which sum includes clothing, board, and tuition. Three meals a day are given them; breakfast an hour after sunrise, consisting of bread, with fruit, cheese, or sausages; dinner at noon, of wine, bread, and soup, with meat three times a week, and on the alternate days beans and maccaroni, with a ragout on the Sabbath; supper at eight, of bread and cheese, salad, and boiled greens. Napkins were provided, and the table-tops were of marble. Five hours a day is devoted to practice in the field, and four hours in the school to scientific studies.

#### AGRAMI.

*Oranges, Lemons, and Citrons.*—Of these, the best known and most generally cultivated are the common orange and its varieties, the blood orange, the Seville or sour orange, and the bergamot; the common lemon, the sweet lemon, and the bergamot; the Florence citron, distinguished by its delicate, grateful, and highly-scented oil, contained in the rind, and the imperial citron, a rough, irregular fruit, growing to a great size, and chiefly cultivated as a curiosity. The citron is cut in two, placed in salt water ten or twelve days, then laid down in salt, and sent thus to Leghorn, Genoa, and France, to be preserved in sugar. These, and all the varieties of the citron family, require a warm climate, a rich, loamy soil, somewhat loose, and an eastern or sunny exposure. Stable manure is used freely, and the best fruit is grown on the richest soil. An abundant supply of water is also requisite, especially for the lemon species, whose roots, spreading horizontally and rarely striking deep, are most exposed to the burning heat of the summer. In preparing for a plantation, the ground is made gently sloping, with just enough descent to allow water to run, and is then dyked in eight feet squares. Every week or fortnight after being planted, according to the weather, water is turned on the highest of these; and then on each lower one, successively. This is continued all summer. As the same water is used by many, some irrigate at mid-day, and do not consider it injurious. The trees are grown in nurseries, and when of sufficient size are planted in orchards, fifteen feet apart. The lemon, from its more straggling growth, will do better at twenty feet. The fruit from ungrafted trees grows larger, and is esteemed as good as that from grafted trees for home consumption.

The latter, however, are preferred, for several reasons. The natural fruit is more delicate in its texture, matures quicker, and will not keep so well for exportation. It is also thorny, and wounds the fruit. Trees are sometimes grown from cuttings, but are thought to bear less and to be of shorter duration than those from seed. The trees may be raised from seed, or propagated by layers and young branches. When the plants are cultivated with attention and skill, they come into bearing in four or five years. In ten or twelve years a moderate crop is annually produced, and at from twelve to twenty they may be considered in full bearing. An average-sized, adult tree will produce from twelve hundred to two thousand fruit, although there are many larger trees that will yield from four to six thousand. Of these, one sixth are unfit for exportation, and are used for home consumption or cut up for lemon juice and oil. From the flowers of the orange an agreeably-scented water, well known in commerce, is obtained by distillation. The bitter peel of the sour or Seville orange, as also the orange buds or small fruit which are blighted on the trees of all varieties in the month of June, afford a considerable article of commerce. They are dried, and shipped to Germany and other parts of the north, where they are either consumed by the brewers of malt liquors or converted into cordials by infusion or distillation over spirits. The fruit intended for exportation is gathered with the greatest care, and deposited in baskets lined with sacking or hemp cloth. The sound and most perfect being selected, they are wrapped in a light-brown, thin paper, imported from Genoa and Trieste, the rags composing which go from Sicily. Large sums are sent annually to Genoa for its purchase. They are then packed in light boxes, double-lined with this paper. This gathering and packing continues from November to March, and is done by men, women, and children, in the country, under a contractor, who receives eight cents for each box of three hundred and sixty. In this shape they are brought to the city store-houses, where, after remaining eight or ten days, they are all unpacked and examined, and any orange or lemon showing the least scratch or blemish is cast into a bin, to be sold in small quantities to the city retail dealers. The perfect ones are then again wrapped and packed as before. If, by some accident, they are not shipped, the same process is repeated every two weeks, so that when shipped they are always perfect, and likely to keep for a long time. The assorting and wrapping, by women, at eighteen cents a day, and packing by men, at thirty-two cents, requires some skill and dexterity to suit the numbers contained in the cases to the customs of the country to which they are to be sent. Each case is divided across the middle into two equal parts, in each of which the fruit is arranged in five tiers. Children are employed in smoothing the papers taken from the fruit in the unpacking, and these children earn about two cents per day beside fruit enough to eat with their bread.

Of lemons intended for England and America, the usual number in such cases is three hundred and sixty; of oranges, the size of the case for which is smaller, the number is two hundred and forty. The first shipment of lemons, called "*di primi fiori*," takes place in September; they are considered much inferior to the subsequent gathering, from November to January, as they have a hard, thick rind, and contain

little juice. These are mostly sent to Trieste, and to the markets in the Mediterranean, while some few find their way to England, as early shipments. Lemons for exportation should weigh at least three and a half ounces each, have a firm rind, moderately thick, abound with acid juice, and not be unripe. For this latter quality, the fruit which is gathered and packed green, in the early part of the season, is greatly to be preferred for foreign markets. About the month of January, the lemons, approaching to maturity, begin to change their color on the tree, from which time they gradually decline in quality for long voyages, until the month of March, when, the trees being exhausted of their fruit, the gathering season closes until the new crop comes round. A sufficient quantity of fruit is always kept upon the trees for home consumption until the next season. The most considerable, and sometimes the most valuable portion of the fruit, is the *scarito*, or that rejected as unfit for exportation, from which the essential oil, contained in the rind, and the juice or citric acid in the pulp, are extracted. The essential oil is expressed by the hand, in a room from which the air is carefully excluded, as, owing to its highly volatile nature, the oil produced would be greatly diminished by currents of air. The skin cut from three sides of the lemon is pressed between the thumb and finger, and ten or twelve ounces may be expressed in a long day by an expert and steady workman. The oil thus expressed is put into large receivers, whence (after remaining some days to deposit the extraneous matter that comes off with the oil) it is transferred to copper bottles, for exportation.

The juice, or citric acid, is obtained by submitting the pulp to a powerful press, which, though rustic in construction, is efficient. This is worked during the season night and day. The quantity of juice produced from one press during twenty-four hours averages one hundred and twenty-six gallons. In the average of the season, it requires from ninety-five to one hundred and five lemons to produce a gallon of juice. The amount of the annual produce cannot easily be ascertained. The produce of the district of Messina, including imports from the opposite coast of Calabria, is stated at two hundred and forty-two millions of gallons. In seasons of great demand, any quantity may be purchased, the requisite amount being fraudulently made up by water mixed with the juice of the sour or Seville orange and that of the sweet orange taken in its green and immature state; sometimes the adulteration is with the juice of unripe grapes.

Lemon juice intended for exportation is put into strong and well-seasoned oak casks, and filled to the bung, so as entirely to exclude the air. When the lemon juice is originally of a good quality, and the filling of the casks is completed, the article may be kept in a cellar, or cold place, for any reasonable time. By injudicious management, rather than from natural defect, lemon juice shipped to foreign markets was formerly spoiled before it reached its destination. To obviate this evil, a British merchant established in Messina, in 1815, a manufactory, on a large scale, for crystalizing the citric acid. This process, however, being found expensive for consumers in general, a new mode was introduced, of evaporating the juice over steam, in leaden pans, four or five feet in diameter, by which the watery parts

of the juice being thrown off, there remained nothing but the citric acid and mucilage, in a highly-concentrated state. This was found to answer the purposes of calico printers and other great consumers so completely, that almost all the lemon juice now shipped from Sicily is boiled down to any given strength; the degree of that strength, ascertained by a hydrometer contrived for the purpose, determines the amount of the duty to be levied on the import.

## VINE.

Unlike some other vegetable productions of the island, the cultivation of the vine is not limited to any particular district or aspect. It flourishes equally well on the mountains and in the plains, on the sea-coast and in the interior, in the north and in the south.

The difficulty of transportation in so mountainous a country as Sicily naturally promotes the most extensive cultivation toward the coast. That in the interior is principally limited to the vicinity of large towns, for the consumption of the inhabitants alone.

Generally speaking, the black grape predominates throughout the island, and from this and the white, too often planted promiscuously, an endless variety is cultivated in every province. In laying down a new vineyard, the land, which should slope southerly, is first well cross-plowed, in the month of November, and allowed to rest till the middle of January. Trenches are then dug, about five feet deep and from four to five feet apart, which are left open to ventilate about fifteen days. The plants, which are vigorous cuttings of the former year's growth, taken from some neighboring healthy vineyard, and generally from eight to ten feet long, are placed upright in the trenches, at a distance of five feet apart, the trench being then filled in to the depth of three feet. The upper end of the cutting or *magli-nolo*, as it is termed, is then turned down with its point stuck into the ground to keep it fresh. As the season advances and the plant begins to vegetate, the remainder of the trench is from time to time filled in. In the succeeding winter the plants are attentively examined and pruned, leaving the most vigorous shoots only with not more than two eyes or buds. The vineyard is then hoed up and kept clean from weeds, till the end of May or June, a cavity being left around each plant to receive the rains. The same cultivation is continued for the second and third years, before which the plants do not show any fruit. The fourth is generally considered the first year of produce. In those districts where canes are to be had, the plants are staked in March and April, to which the shoots are attached as they advance in growth, to protect them from being broken by the strong northeast winds which prevail in June. From six or seven years to twenty a vineyard is considered in its prime bearing, though there are many favored by rich soil and judicious management, which remain in full bearing forty and even fifty years. If the plantation is good, the produce of one thousand vines, in the seventh year, will be two hundred and thirty gallons of wine. Where the proprietor holds the vineyard in his own possession, the average annual expense of cultivation may be estimated

at from two dollars and fifty cents to three dollars and fifty cents per thousand.

When the owner is an absentee, or puts his vineyard into the hands of a *metayer*, this latter is expected to reside on the spot and perform all the labor, for which he divides the vintage with the landlord in equal parts, measured at the press. The expense or cost of the canes is borne equally by the landlord and metayer, and cuttings are also divided in equal portions. These agreements are always in favor of the landlord, as, the metayer being unprovided with casks or stores to deposit his portion, the whole goes into the hands of the landlord, who, about Christmas, holds a meeting with other landlords of the same district, when a price is fixed at which they are to settle with the metayers, deducting one half the expense of the vintage. The price is always much under that at which the wine may be sold when matured, but the landlord considers himself entitled to this advantage for the expense of providing casks and stores, the possibility, in unfavorable seasons, of the wine turning sour, the bursting of casks, and similar accidents.

The vintage toward the coast commences, in favorable seasons, from about the 20th to the 25th of September, but in the mountains and the interior a month later. Every vineyard of any extent is provided with a *palmento* and wine-press, generally constructed in some shed or convenient out-house adjoining the dwelling of the metayer. This consists of a substantial stone cistern built upon the floor of the press room, about three feet deep, and proportioned to the extent of the vineyard, having an opening at the bottom, or one side, into which is introduced a stone gutter, projecting over a well sunk in the ground, and immediately under the wall of the cistern above. Sometimes a wooden cistern is used, which is cheaper, and better adapted to our economy. The grapes being gathered and thrown into this cistern, are trodden by men, when the juice flowing through the gutter is received into the well below. This treading is kept up as long as any juice continues to flow, when the husks are collected and heaped in the middle of the cistern. Being covered with strong planks, they are then submitted to the press. This consists of a beam of timber, from twenty to twenty-four feet long, one end of which is let into a hole, purposely built in the wall, and to the other is affixed a vertical screw, with a huge stone attached, weighing from twenty to twenty-five hundred weight. This beam passing over the husks, which have previously been collected in the middle of the palmento, subjects them to a most powerful pressure, when the stone is suspended by the winding of the screw. When no more juice flows from the pressure, the husks are removed, and the must conveyed to the magazine. The produce of this pressing, which brings out the coloring matter from the musk, is, in a commercial point of view, considered essential in the quality of the red wines. So much is a deep color thought desirable in these wines for a foreign market, that it is a custom, in many parts, to spread the husks again upon the floor of the palmento, and return the must thereon, leaving it two or three days to ferment, thereby more effectually incorporating the coloring matter with the wine; but the practice is injudicious, as it imparts to the wine a harsh, acid taste, acquired