

the best; and this taking care of themselves, doing their own sowing, is another advantage of annuals.

Select the beds for the different colors and sow your seeds respectively, and you will have the work done for years. For those who have not much time to spare from other and sterner duties this is a good way to do. This is the way to get the most for the expenditure of time and means. There is no reason why every garden throughout the State might not be stocked with these lovely annuals. Most of them are hardy and would do well in any part of it. They require little care and repay well the little there is bestowed upon them.

I have neglected to note the fragrance of many annuals. Who does not appreciate the delicious mignonette, and the fragrant atmosphere surrounding sweet pease and the stock jilly, and many others? But I have said enough. Let us all set about to see that our gardens are effective in their beauty, thus testifying that we are a flower-loving people, and that while we study the useful we do not forget the beautiful.

VOTE OF THANKS.

MR. MARK L. McDONALD: I move, Mr. Chairman, that the thanks of this Convention be tendered to each of these ladies for those most beautiful and valuable contributions.

Motion seconded, and carried unanimously by a rising vote.

ORNAMENTAL WILD FLOWERS AND SHRUBS WORTHY OF CULTIVATION.

Essay by C. R. ORCURT, San Diego.

"In all parts of the civilized world, the refinement, innocence, and happiness of the people may be measured by the flowers they cultivate," says an eloquent author. I would add that the wild flowers of a country must furnish a truthful index to the adaptability of that land as a home for the human race, for where they abound, there, too, man may seek for fruitful toil, pleasure, and rest.

Where may lovelier flowers, more brilliant tints, or more delicate coloring be found in greater profusion than on the mountains and mesas, in cañon and meadow, throughout the length and breadth of California? And where may a more perfect earthly abiding place be found for man?

California has probably already furnished to the horticulturist a greater variety of beautiful flowers than any other State in the Union. Foremost among those already introduced into cultivation is the abronia, a trailing plant with prostrate branches, and bearing umbels of sweet-scented flowers. *Abronia umbellata* is the best known, with its rosy, lilac flowers, and it slightly resembles the verbena. *Abronia arenaria*, with its waxy, yellow flowers, has also given great satisfaction in cultivation. These grow in great abundance along our sea coast; but other lovely varieties are wasting their sweetness on the desert air of the

Mohave and Colorado arid regions, awaiting the appreciation of man. These plants are especially adapted to dry, sandy, or saline soils, and are excellent to prevent the shifting of sand.

The collinsia, of which we have several species, is another familiar flower in eastern gardens, a free flowering, hardy annual, with flower stalks from a few inches to two feet in height, each bearing several whorls of handsome, vari-colored flowers. The purple and white *Collinsia bicolor* is one of the handsomest in the genus, and abounds on rich hillsides and in shady places.

Eschscholtzia Californica, with its finely cut, glaucous green foliage, was one of the earliest to receive an introduction into the gardens of the civilized world, and is now everywhere known throughout Europe and America. The flowers vary exceedingly in color, ranging through the many shades of orange and yellow to white; in one form described as greenish, in others almost becoming red. It is usually an annual in gardens, but along the sea coast and in moist situations it becomes a perennial. By some botanists the many different colored forms are considered as species, and for horticultural purposes it may be well to treat some of them as distinct.

One of the beauties of the California landscape in springtime is the massing of color on our hillsides and in our valleys. Acres, and often hundreds, and sometimes even thousands of acres, will be of a brilliant uniform hue, owing to the preponderance in the vegetation of one variety of flower that is in bloom at the time. Usually, however, each flower is confined to a more limited area, and one may wander first from a patch of pure white nodding *krynitzkias* to a bed of brilliant rosy pink *gilies*, while just beyond exists a mass of royal purple, the whole encircled by a sea of gold.

What must have been the feelings of the earlier botanists when they first entered upon these confines of Nature's garden. These earlier botanists were able to view the landscape with appreciation as keen as horticulturists, and the gardens of Europe were soon enriched by their labors.

We cannot here attempt to review all the flowers which thus early met with due appreciation, or we should have no space for those which are still asking admittance within the floral circle.

Phacelia Parryi is one of the loveliest of the annuals of Southern California, and a universal favorite among those who have made its acquaintance. Every one who sees it face to face feels an instant admiration for its beauty, and a kind of friendship for it, such as we experience in our intercourse with the pansy and other flowers which confront us with something akin to a human expression.

The plant delights in warm, sunny exposures, on the banks of cañons, among the foothills, in fertile valleys, and on the hillsides. It extends, in San Diego County, from the seashore to the confines of the Colorado Desert, southward to near San Quintin Bay, Lower California, and perhaps beyond. It has an open, rotate corolla, of a rich and brilliant royal purple, well set off by the dark green foliage. Occasionally a flower may be found of a paler color, sometimes nearly white. With nearly all of our native flowers that are normally purple in color, I find albinism a common occurrence, though rarer in some species than in others.

For cultivation, I should call this one of the most desirable of the

many pretty annuals which California affords to the horticulturist. It is capable of most effective display, and under favorable conditions will produce a profusion of flowers for months.

Phacelia Parryi is a lasting memorial of one who has just passed away. Dr. C. C. Parry, by his explorations, has introduced many a plant worthy of cultivation to the world of botany and horticulture. News has just reached me of his death at his home in Davenport, Iowa. To him belongs the honor of introducing the lovely *Lilium Parryi*, which we all admire. The *Notholaena Parryi* of our arid regions, a retiring and modest fern, faithfully reflects in these the character of one who made friends wherever he went. Dr. Parry was one of the earliest and best friends of the writer, and his death will be felt by many who have been similarly benefited.

Nolina Parryi, a large, liliaceous plant, is another of our desert perennials worthy of attention—equally as ornamental as the yucca.

Phacelia Orcuttiana bears a smaller flower than *P. Parryi*, and is white, with a golden center. It is a handsome, showy plant, one or two feet or more in height, and may be used with good effect in a garden or conservatory. It grows abundantly in the mountains of San Diego County and Lower California, and seems to spring into existence wherever a brush fire has devastated a section of the country.

Gilia dianthoides bears a flower which in size and beauty is out of all proportion to the plant itself, which consists only of a slender, wiry stalk, half an inch or so in height, with narrow, inconspicuous leaves; but from this stalk appears one or more rotate, rosy pink flowers, half an inch across. The flower is of such a texture, and is borne so near the ground, that it is scarcely available for any decorative purpose; but a field carpeted with them, as they shine in the morning sunlight, cannot fail to kindle admiration. Under favorable conditions the plant attains a larger size, and forms a dense mat spreading out over the ground. In cultivated fields, or by the roadside, I have found single plants, spreading out in this way more than a foot across, completely hidden by the numerous wide-awake flowers. A single plant would thus form a lovely bouquet of itself; and we may hope that in cultivation it would well repay any attentions paid to its beauty. It is not rare to find a plant with pure white flowers, especially among the foothills. A similar species (*Gilia Orcuttii*), with white flowers slightly variegated with purplish red, was collected in 1883 on a mountain in Lower California, but has not since been seen. Another equally beautiful species (*Gilia bella*) was discovered on the high tablelands of northern Lower California among the Piñone pines; and I have since seen it abundantly on the mountains bordering the Colorado Desert. It has the same characteristics as *Gilia dianthoides*, but is more brilliant and darker, with flowers of a smaller size.

This family (the Polemoniaceæ) has given many of its members to enrich our gardens, the best known of which is probably the Mexican *Phlox Drummondii*. The mountains of California yield to the botanist some lovely varieties of phlox, as yet, I believe, unknown to cultivation. The State is especially rich in the multitude of forms of *Gilias*, several of which, like *Gilia achillæfolia*, *G. capitata*, *G. tricolor*, and others, have gained a permanent place in our annual seed catalogues. Many more besides those already mentioned are worthy of a place in our

gardens, and, with their bright, sunshiny faces, must eventually win their way.

The læselias are closely related to the gilies, and the three alpine forms of northern Lower California are worthy of attention.

The primula, or primrose, family gives us the American cowslip, or shooting-star, the nearest relative in California of the English primrose. Dodecatheon Clevelandi shows itself, generally, in early spring over the hills, mesas, and valleys of Southern and Lower California, especially near the coast. The flowers pass, in different individuals, from clear pearly white, through lovely shades of pink and rose red, into a brilliant phlox purple, and a large field thickly dotted with their nodding heads is a vision of loveliness familiar to Californians. For many years this and other forms throughout the United States have been known to botanists as the Dodecatheon meadia of Linnæus. Within recent years Mr. E. L. Greene has studied our Californian forms, describing several as new species, and naming that of Southern California in honor of the earliest resident botanist in San Diego, Mr. Daniel Cleveland, whose early collections brought many new plants to light. Every child in springtime is sure to gather large handfuls of the fragrant flowers, and each has some pretty name for them, such as rabbit-ears, Johnny-jump-ups, or mad violets.

This flower should become as general a favorite as the cyclamen, which it surpasses in beauty and the ease with which it can be cultivated. The perennial roots are easily transplanted, and no difficulty should be experienced in making it thrive in eastern houses and gardens. In California they may be planted as borders to beds, or grouped in masses, or dotted thickly over a garden as if they were wild. The broad leaves form a pretty rosette before the one or more spikes of flowers appear, and the flowers are admirably adapted for bouquets and for the use of florists.

Lathyrus splendens owes its name to the pioneer botanist of California, the late Dr. Albert Kellogg, whose botanical labors are so well known. For many years this, the loveliest vine native to West America, was lost sight of, and by other botanists the name was considered a synonym of the common lathyrus of Southern California. In the spring of 1888, in the month of April, Dr. C. C. Parry and Mr. C. G. Pringle, two of our most noted American botanists and explorers, invaded the then almost unknown territory of Baja California, traveling from San Diego southward overland to the shores of Todos Santos Bay, thence inland to the then almost deserted mining town of San Rafael, and back to San Diego.

It was my fortune to accompany these experienced botanists, and soon after crossing the Mexican boundary line at Tijuana (or Tia Juana—Spanish for Aunt Jane), we had the pleasure, in common, of rediscovering this magnificent plant in a cañon among the foothills, hanging in graceful festoons, or clambering recklessly over the bushes and shrubs beside a running stream.

With hands and pick the first plant encountered was gently disengaged from its support, and root and flower quickly transferred in triumph to my portfolio. From this time on we found it ornamenting the cañon shrubbery and the hillsides and arroyos with its large and showy clusters of deep brilliant rose-red blossoms, which makes its name so appropriate.

On our return to San Diego we found it transplanted from its native wilds and flourishing, furnishing refreshing shade, and covering a porch with its enlivening green, which harmoniously relieved the brilliancy of its flowers.

In April, 1889, I again found it in the mountains of San Diego, where for miles along the roadsides the bushes were heavily loaded with its brilliant blossoms, and where it had won from the people the very appropriate name, the Pride of California, to which it is fairly entitled by its beauty.

With us it blossoms the second season from seed. I should describe it as a hardy perennial, as it is found in regions of frost and snow, as well as in our more salubrious climate. On New Year's day, this year, while crossing our mountain range en route to the Colorado Desert, I found a few stray blossoms along the roadside, and the succeeding week was stormbound, amid ice and snow, where in April, 1889, I had found it in fullest bloom.

One of the brilliant spring beauties that receives the admiration of both the savage and cultivated races is the Californian pink (*Erythraea venusta*), also known under various names like California Century, but best known under its Mexican name, *canchalagua*. Medicinally, it possesses valuable antiseptic and febrifuge properties, and is in high repute as a bitter tonic and stomachic. It is said to form the basis of the "August Flower," so extensively advertised, but this is doubtful. With the Indians and Mexicans it is used extensively in fevers, and hacienda or rancheria is rarely found without a bunch of the dried plant suspended from the roof.

The plant is from three inches to a foot in height, and when favored by sufficient moisture, branches into a bushy form. The delicate green and rather sparse foliage is completely hidden by the mass of brilliant coloring which soon envelops the plant. The large, rotate corolla is a bright purplish pink, and very beautiful, and no one can resist the first temptation to gather a brimming handful of the flowers. A bouquet can be gathered, and the flowers will keep bright and fresh without water for weeks—almost everlasting in character.

In 1884, it will be remembered that we had an unusually wet spring, especially in Southern California, and vegetation grew more rank than I had before or have since seen. In May, the usual time for erythraeas to bloom, our mesas and valleys near the coast were covered with flowers, and the *canchalagua* was in its glory. I then detected, not for the first time, however, but in greater numbers than before, a beautiful white flowered form of this species. From the abundance of material which I sent to the late Dr. Asa Gray, he was at first inclined to consider it distinct. In different individuals the flowers passed from pure white into the most delicate shades of lilac, lavender, and purple, and thence, naturally, into deep purplish pink, to a normally lighter shade. This certainly, like many other members of the Gentian family, is well worth a permanent place in American gardens.

Another noteworthy plant of the same family is the *Frasera Parryi*, a biennial, with light green leaves, margined with white, which produces a tall panicle of curiously marked, showy, apple green and white flowers, spotted with purple.

Eustoma exaltatum is another near relative, growing from a span to a foot or two high, producing showy, light purplish blue flowers; not

rare in moist situations in the Colorado Desert cañons, where it is very conspicuous when other plants are out of bloom.

The California layia (*Layia elegans*) is a beautiful, hardy annual, forming upright, bushy plants six inches to a foot high, and producing in abundance large single lemon yellow flowers, the rays tipped with white. Of easy culture and very showy, this plant has recently attracted the attention of eastern seedsmen. Sometimes the rays are only yellow near the base, the remainder purple or white, three quarters of an inch long. A purple flowered form was found near Todos Santos Bay, Baja California. Again the rays are sometimes entirely yellow. *Layia xanti* is found on the borders of the Mohave and Colorado Deserts, and has larger, pure white flowers.

I trust that the other flowers of Northern and Central California will not feel slighted at my neglect of them, since it is rather from ignorance than intention. I have been too busy in wooing their, botanically, more youthful sisters in Southern and Baja California to pay attention to the northern members of our "best families."

There are many other magnificent annuals both known and unknown to fame, but I will now mention a few of our shrubs that are more especially worthy of notice.

Solanum xanti is a handsome half-shrubby bush, from a span to several feet in height. Its dark green foliage is well set off by the profusion of brilliant royal purple blossoms which it bears almost throughout the year. It is found from Cape San Lucas, I believe, to San Diego, and northward. Its perennial roots can be easily transplanted, and I doubt not it would grow readily from the seed.

Among our native California shrubs that have already met with the appreciation due them, I will simply mention *Carpenteria Californica*, *Fremontia Californica*, the magnificent *Romneya Coulteri*, *Heteromeles arbutifolia*, and *Leptosyne maritima*, all fully worthy of more extended cultivation than they have yet received.

Our California *ceanothi*—the wild lilacs of the Pacific Coast—do not seem to have yet received the attention they deserve. They are mostly graceful evergreen shrubs, bearing in springtime a profusion of fragrant and beautiful white or delicately tinted blue flowers. The mesas around San Diego are white in early springtime, the foliage and branches of the shrubs almost completely hidden and disguised by the floral wealth displayed by our commoner species. In February, while among our foothills, I found another coast species in bloom, with its clusters of campanula blue flowers, which, as they grow older, fade first into flax-flower, and then into pearl blue.

The *Arctostaphylos manzanita* is another ill-appreciated flower, perhaps because it does not yield kindly to man's caresses. Yet it would seem as if some one might coax it into the same graceful customs of growing and blooming as it follows in its native mountains, and it would surely repay, in that case, for all the care and time that might be given it.

The lovely sprays of snow-white flowers, blushing at the attentions of the fast falling snowflakes of February, would have won for it the vote of any beholder for our national flower. It would certainly be an appropriate flower for our State emblem, if each State is to choose its own flower, as some one has suggested, and in that case its near relative—the trailing *arbutus*—might be allowed to carry off the national honors.

Abutilon aurantiacum is a low, compact shrub, found near the southern borders of our State, and as yet known by a few botanists alone. Its large, velvety, glaucous green leaves render the plant in itself highly ornamental, and, in size, admirably adapted for pot growing. The delicate golden flowers are a fitting crown for its beauty, and lasting, as they do in its native haunts, nearly the whole year through, should prove a welcome addition to this favorite group of plants.

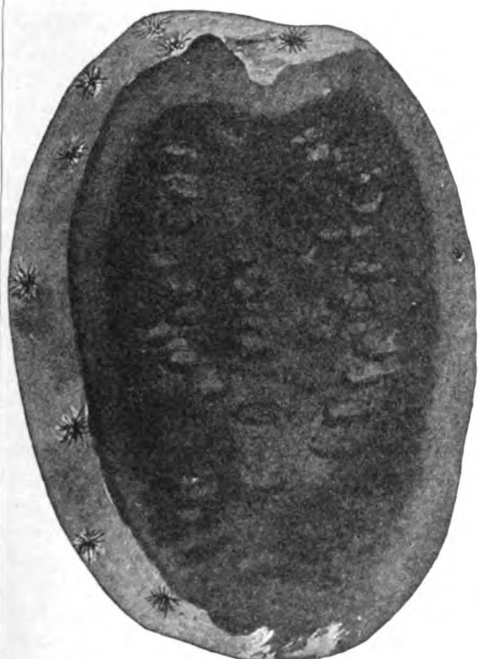
Along the borders of the Colorado Desert there are to be found several exceedingly handsome shrubs which occasionally become small trees. Whether they would take kindly to cultivation I cannot say, but certainly we would not begrudge them any trouble if successful in the attempt. First are the daleas—the embodiment of grace—the several species blending harmoniously with each other in color and form. The airily pendant branches, often leafless and yet not appearing in need of foliage, are beautiful at all times. They are the height of perfection, however, when turned to a brilliant mass of deep indigo blue and purple flowers, laden with sweetness, attracting the bees from far and near. Perhaps the desolateness around them, the dreary expanse of white, shining sands along the arroyos where they grow, add somewhat to their beauty.

Parkinsonia Torreyana, the *Palo Verde* of the Mexicans, is another of these both curious and beautiful desert shrubs or trees. Green, bright, vivid green, from the roots to the tip of each graceful branch and twig, leafless at times, and, like the daleas, appearing to need no foliage, they would be admired above the great majority of the ornamental shrubbery that is planted. At this season they are clothed in delicately divided leaves which lend an added grace to the tree. In summer the foliage disappears and is followed by curious, yellow flowers, which do not detract from the beauty of the whole.

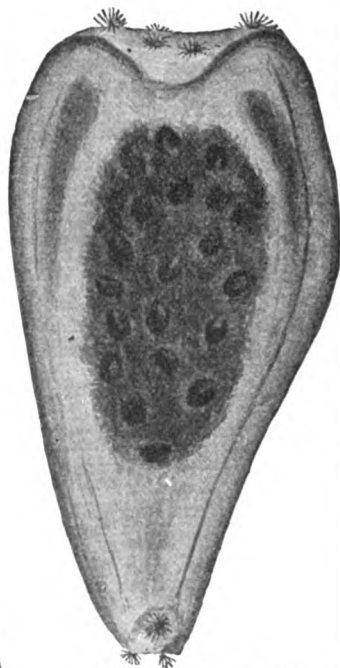
Another shrub which invariably attracts a stranger's attention is the *Hocotillo*, or *Palo Adan* ("Adam's tree"), better known to Americans as the candlewood (*Fouquieria splendens*). It, too, is leafless, except at certain seasons. Like most desert shrubs it is provided with spines, or thorns. It branches out from a short trunk into from a few to one or two hundred stems, which stand out at a slight angle on every side. It is an odd looking thing, not very ornamental at first glance, and is often mistaken for a cactus. It has evidently followed the old maxim: "If you can't be pretty, pray be odd." Cut off one of these curious stems, take it home, put it in the garret right side up with care. Some rainy day, six months afterwards, you may wish to make it into a cane and will hunt it up. The chances are you may find it with a flowering cluster of scarlet blossoms growing out of its top. It has served others in this fashion. You may cut slips and plant them and make them grow. You can transplant young roots with difficulty. Still I do not know of its yet yielding gracefully to cultivation, but I have not myself given it a fair trial, I feel, since I allowed my plants to die.

I believe our *Adenostoma fasciculatum* is already known in cultivation—in Europe if not in California. Of course so common a shrub as this is with us is not worthy of attention, according to the usual verdict. A near relative, *Adenostoma sparsifolium*, is found in our mountains, is equally desirable for cultivation, and as yet, I believe, unknown to horticulturists in general. Its delicate, light green foliage is in sharp contrast with its congener, which has very dark green foliage. Both are

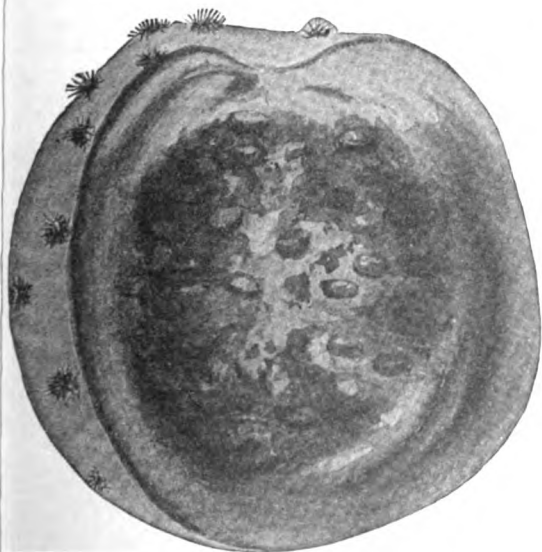
FRUITS OF THE CACTUS.



TUNA COLORADO.



OPUNTIA ENGELMANNI
(Wild Tuna).



TUNA MANSE.

EDIBLE PRICKLY FRUITS.

evergreens, and of a very high order as ornamental shrubs. By studying the natural blending and contrasting of our wild shrubs and trees in their native haunts, the landscape artist could gather some useful hints, and both of these species of *adenostoma* would be very useful in his work.

I had intended to review in this paper our beautiful liliacæ, but time prevents me from doing so. But there is one, which I have recently met—the magnificent *Hesperocallis undulata*, of our desert regions—that must not escape notice. This fragrant day lily is found in clear sand in the Mojave and Colorado Deserts, and has recently been reported from near Cape San Lucas. It has a large edible bulb, which produces a stalk from a few inches to two feet high, bearing often as many as thirty fragrant white blossoms. The blossom is large, with a green mid-rib on each sepal, which adds materially to its beauty. The bulbs are one to three inches in diameter, nearly globose, and furnish the traveler in those regions with both food and water if he is so fortunate as to know how to find them. They can be eaten raw, or cooked like other vegetables.

In closing, I wish to call attention to certain native and naturalized fruits—the several varieties of tunas, which have been introduced around our old missions, and are growing wild on our hills. The common tuna produces an abundance of a sweet, luscious fruit, greenish in color, and is what I suppose to be the *Opuntia tuna*, a native of Mexico. The Tuna Colorado differs but little, except in color of fruit, which is of a rich maroon purple. This, I infer, is the *Opuntia ficus-indicus*, or Indian fig. The fruit is rather insipid and mealy.

The third variety is very distinct from either of the preceding, and is, I believe, a good species, as yet undescribed by any botanist, so far as I know. Its Mexican name may be adopted for its specific, if it has not been already christened by some Mexican explorer. In that case, we will call it the *Opuntia tuna-manse*. The fruit is more nearly globose, of a mottled "orange-bloodshot" color.

The flowers of these three vary in color to correspond with the color of the fruit. Our native wild tunas vary greatly in size, color, and taste, some bearing exceedingly sweet, delicious fruits, while others are very sour.

The three photo-engraving cuts accompanying this illustrate the beauty of these fruits, which are useful for making delicate jellies or syrups.

I scarcely need to call attention to the ornamental features of this cacti, as the plant is doubtless familiar to all; but the beauty of fruit and flower in the different varieties is probably not so well known.

OPUNTIA FRUIT AS AN ARTICLE OF FOOD.*

One of the most attractive fruits in the markets of Mexico, and one that is always in demand, is the fruit of the *opuntia*, or tuna, as it is known to the Mexicans. Both the foreign and native inhabitants consume it, and with many it forms the principal article of food for months in the year.

* Dr. Edward Palmer, in "West American Scientist."

The seeds of some of the choicest varieties sold in the markets of Mexico were obtained, and are now being grown by the United States Department of Agriculture for distribution in localities suited to their cultivation. The tuna of the Mexicans must not be confounded with the opuntias found in Arizona, New Mexico, and Southern California, the fruit of which is not utilized.

What is known as the cactus belt of Mexico furnishes many very fine species of opuntia adapted to cultivation. When brought together, and each variety receives a name, as other cultivated fruits are distinguished, they will severally be sold and esteemed for their respective merits. Then especial growers of this cactus will appear, and new varieties be produced by cross-fertilization and other means, as in our northern fruits.

The potato and tomato, when first introduced, were little valued, because their qualities were unknown; now the world would not care to do without them. When man utilizes the opuntia, then that fruit will be prized wherever known.

CULTIVATION.

Scarcely a plant known to man requires so little care in its cultivation as the cactus. It will grow in nearly any soil, but best in light sandy or gravelly combinations. The opuntia reaches the greatest perfection on the tablelands of Mexico, where owners of estates have assured me that they have realized, beyond all expenses, \$3,000 to \$5,000 annually from the sales of this fruit and its products.

The opuntia takes root readily when a piece of a plant is laid on the ground, or a little soil may be thrown on the top of a joint, so easily is it cultivated. It will stand considerable cold, and drought does not affect it beyond causing the plant to wilt at times, from which it quickly recovers. The dryness during the most protracted drought seems to increase the sweetness of the fruit.

Give the opuntia one tenth of the care in its cultivation that the peach requires, and it will repay you with a delicious fruit that lasts for a much longer period for market; one better for shipment; one with good keeping qualities. No insects to molest it, no danger from frost, as it blossoms after the time of frost, and protected from thieves by its spines, you can enjoy its fruits unmolested. There are some who dislike all forms of cactus because of their spines, and consider them useless, but this is a mistake. All cacti are useful to animals and birds, and may be utilized by man; and the spines simply prevent their rapid destruction by animals that would greedily devour these succulent growths were they not protected.

REMOVING THE SPINES.

When the fruit of the opuntia is ripe the fine spines upon their surface are readily removed by taking a bunch of grass, or any other suitable thing, and switching the fruit, thus removing easily the downy spines, which, if not removed, would cause a little pain for a short time in handling the fruit. I have seen persons, born among the tunas, catch the fruit suddenly near the summit and wrench them off with their fingers, apparently without suffering any evil consequences. If the spines are not removed at gathering, the fruit will have to be wiped before the rinds are removed, to prevent pain to the operator.

GATHERING THE FRUIT.

There are three methods resorted to in gathering the opuntia fruit— one, with the hands; second, by wooden tongs; third, with a knife. The first method can only be resorted to when the plants are low, or in gathering from the lower branches of a tall plant. By taking hold of the fruit with the fingers and giving it a sudden twist it is at once detached. This is, no doubt, the best method of gathering for market, as there is less bruising, and, if the spines were previously removed, can be at once packed for market, or the "jackets" removed for immediate use. The second method of gathering the fruit, by means of wooden tongs, is, so far as the writer knows, only resorted to by Indians, who gather for their own consumption.

The knife in the hands of an experienced gatherer can be made to detach a great quantity of fruit in a day. It is much used along the tablelands of Mexico on the great estates where the opuntia grows to perfection, and the fruit, by various means, rendered profitable to the owners. The blade of the knife is made of steel and is inserted into the split end of a long, strong stick, the length of which enables the gatherer of tunas to reach with the knifeblade the joints bearing ripe fruit. The plants are often eight to fifteen feet high. The fruit is arranged around the outer rim of the joints, so, when the gatherer brings the knifeblade to the joint, he separates by a quick turn that part bearing the fruit, and as quickly thrusting the blade into the severed part, brings it to the ground, when the fruit is soon denuded of its fine spines and removed. Plants present an odd appearance after the terminal joints have been thus removed, but suffer no injury, and the fragments readily take root and form new plants.

REMOVING THE SKINS FROM THE FRUIT.

It is surprising what a quantity of fruit can be deprived of skins and prepared for the palate by one pair of experienced hands. A thin slice is removed from each end of the fruit; a slit is then made through the peeling along the length of the fruit. The fingers press downward quickly the separated skin, leaving the pulpy fruit exposed in a tempting manner. Thus prepared, the fruit is one of the sweetest, most nutritious, and refreshing of fruits, mealy and juicy, most agreeable for the warmer seasons of the year in the United States. Especially is this fruit adapted for the breakfast table, when the languid body needs something to aid digestion. If kept as cool as a watermelon, it will prove far more agreeable than that fruit, being of a similar flavor with that of the strawberry added, and it is healthier, more nutritious, and longer in season than the watermelon.

This fruit is to be found in the Mexican markets in abundance, and very cheap five months in the year, and is consumed by all classes and conditions of people. Venders are to be seen along all the roads. Along the Mexican Central Railroad the earliest tuna is ripe in June, and the latest varieties disappear in November, and you are offered them in small dishes, with the epidermis removed, a thorn from the mesquite tree being used to carry the tempting morsels to the mouth.

This fruit is finding its way all along the frontier of the United States,

and this winter I saw some fine fruit on a stand in Jacksonville, Florida, for sale.

Americans and foreigners consume this fruit with equal avidity with the Mexican, and praise the flavor. When as well known in this country as in Mexico, it will be utilized to the fullest degree.

NATIONAL REGISTRATION OF PLANTS.

Essay by A. L. BANCROFT, San Francisco.

THE NEED OF A COMPLETE AND SYSTEMATIC PLAN OF REGISTRATION.

The generally unsatisfactory condition of the nomenclature and means of identification of fruits, flowers, and plants, is shown by the fact that at nearly every Convention of fruit growers or florists a committee on nomenclature is appointed or has a report to make. Unfortunately, the work of such committees is generally merely local in its influence and is soon forgotten, and but very little or no advance is being made in establishing a general and uniform nomenclature for the entire country.

Those dealing in or having to do with plant life are caused great inconvenience and loss of time and money, for the reason that the names of many plants are not uniform in all parts of the country, and that there is no ready or authoritative way of identifying them. Cases frequently occur where, through duplicate names, ignorance, or dishonesty, purchasers fail to obtain what they expect. The fault may even be their own, but the losses are no less and the situation no less exasperating for that reason. As to the desirability of having one, and but one, permanent and recognized name for an individual plant, all must agree.

If this one accepted name could be decided upon by some central power and be made official for the whole country, it would be the most desirable thing that could possibly be done; but it must be official and final, or it would not be generally accepted and permanent, and would amount to nothing. The names, etc., should, in this connection, be recorded in a series of volumes, to be known as the "American Horticultural Register."

WHAT THE PLAN OF THE REGISTER SHOULD BE.

The register should be planned upon a very broad basis, so as to be permanent and not to require reconstructing at some time in the near future. It should include all plant life, both indigenous and exotic, which grow on the American continent, extending from the north pole to the equator.

By starting separate lists for different classes of plants at the same time, and not attempting any arrangement of the individual plants in the lists, but merely recording them as the names are decided upon and they are ready to be recorded, the lists under each class of plants could be extended indefinitely. The first plant in each list should be No. 1, and the others continue in regular rotation as new ones are added. A system of letters could be used to indicate the class to which the list belongs, and figures to indicate the number of the plant in the list. This