

The Barberry, AND OTHER NEGLECTED FRUITS.

BY MRS. C. S. NOURSE.



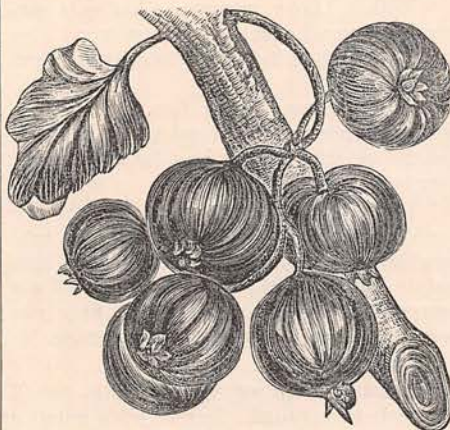
AMERICA is, perhaps, more favored than any other land in regard to the possession of fruit. Not only is it true that the extent of the continent embraces many climates, but even in the same latitude the soil appears to favor the growth and perfection of a great variety of fruit within a limited area.

In the Northern States it requires careful culture and some protection, but if this is given, most of the hardy fruits of other countries can be propagated. Besides this, we have many native kinds which are well worthy of care and effort to bring to perfection. Among these are the Barberry and the Gooseberry, both native to the soil of the United States, and both worthy of being more highly appreciated than they have hitherto been. The genus *Berberis*, to which the whole barberry family belongs, (nat. order *Berberidaceæ*) is found widely distributed over both hemispheres. In the Eastern, from Christiana on the north, to Candia on the south, in Europe, and from Siberia to Central India, in Asia. On the Western Continent they occupy about the same position, never descending to the tropics. The *Berberids* are, as a genus, distinguished by striking characteristics, which are possessed by nearly all the species, though in many respects they differ widely. One of these is universal: the yellow stain made by the bark and root. In some kinds the color is very brilliant, and they are used as a dye. In India the entire wood of the *Berberis tinctoria* is used as a brilliant dye. Its fruit, and that of the *Berberis aristata*, are gathered and dried as raisins by the natives of Hindostan. Indeed, India furnishes the noblest specimen of the entire group, the *Nepalensis*, which is found among the mountains in the northern districts, at an elevation of from 5,000 to 6,000 feet. This elegant ornamental tree is well calculated to adorn our public parks and private grounds, and there is no apparent reason why it should not be reckoned among our naturalized trees. It would be found well worth the trouble it might cost, as it is hardy and of free growth.

The genus is divided into two large groups, one having undivided leaves, the second being pinnated like the ash. The latter takes the name among botanists of *Mahonia*. The common English name is Ash-Barberry.

It is, however, with the first division only that we have to do at present, as the subject of this paper is the *Berberis vulgaris*, or common barberry, well known to every traveler through our North-western States, who cannot have failed to notice and admire the plant to be seen upon every roadside, which grows to the height of about five or six feet, and is cov-

ered, in the time of fruitage, with rich, luxuriant clusters of oval berries, of a brilliant scarlet color, which droop in loose panicles from every pliant stem. The bush forms an elegant outline, and is well worth being cherished for ornament as well as for use. In this coun-



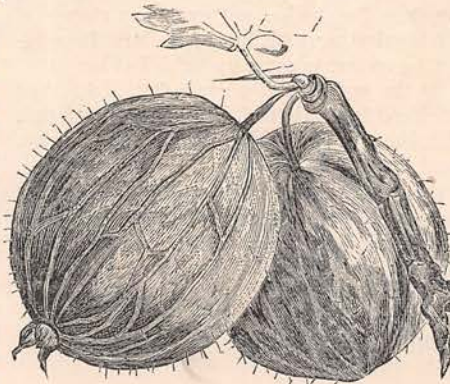
BLACK CURRANTS.

try it takes the form of a bush only, sending up many stems from a single root, but in Italy it becomes a tree the size of our common plum, and has been known to survive for two hundred years.

In all northern lands it is of humble growth, and is content to be a valley plant, but under more favorable conditions of climate, its latent ambition shows itself, and it climbs to lofty heights. On Mount Etna it is found, within the limits of the sterile belt, at the height of 7,500 feet.

The flowers are very delicate and pretty, and droop in loose racemes, falling in graceful abundance over the rich dark foliage, which makes them appear conspicuously beautiful.

They are most interesting from their singular structure and properties. The stamens are placed in front of the petals. The anthers open by reflex valves, in other words the face



GOOSEBERRY.

of the anther peels off, adhering only at the point, as by a hinge. In common with the whole genus, the flower has glands upon the petals; but is peculiar for the irritability of its stamens. When the filament is touched upon the inner side by any foreign substance, the anthers immediately bend forward toward the pistil, touching the stigma, and remain in

that position for a short time, and then gradually return to their original erect attitude. These actions take place most readily in warm dry weather, for these sensitive organs seem to be affected by even slight atmospheric variations, though it is possible that the fact that they lose their irritability in wet weather may be owing to the mechanical action of the raindrops falling upon them, and dashing them against each other. The most singular fact, however, remains to be told. These delicate filaments are as sensitive to chemical, as to mechanical action, and respond to the action of drug poisons with wonderful certainty. Under the contact of corrosive sublimate or arsenic, they become rigid and brittle, and lose the irritability which characterizes them. On the contrary, when poisoned by narcotics, such as opium, belladonna, or prussic acid, they become relaxed and flaccid, also losing their irritability, though from an entirely different cause. Ether or chloroform produces also the same effect. These facts give additional interest at the present time, while the study of the close analogy between animal and vegetable life is attracting so much attention, not only from scientists, but the general public as well.

I have said that the wood of many of the genus *Berberis* is used as a dye. The common barberry is one of them. It is largely used for coloring linen and leathers, for which substances it is peculiarly prized. It will be seen that the barberry is a most useful as well as beautiful plant, and deserving of being ranked among our most valuable shrubs.

In England the barberry grows with great freedom, without cultivation, but owing to the idea, which has long been generally held among farmers, that its presence was injurious to wheat, a vigorous war has been kept up against it, and it has been cut up root and branch from the hedge-rows, until in some districts it has been almost exterminated, notwithstanding its beauty, and its useful qualities, a victim to misrepresentation, and the misunderstanding which grows out of ignorance. Scientific men smiled at the opinion that there was any influence in the foliage or fruit of this plant to produce a blight upon a wheat field, but agriculturists declared persistently that where barberry bushes grew wheat became mouldy, and finally was destroyed. One gentleman philosophically disposed, and prejudiced in favor of Baconian methods of inquiry, determined to ascertain the facts before he decided upon their cause. He boldly planted a barberry bush in the midst of his wheat field. It was not a large bush, it lifted its green head only a little way above the waving grain, and certainly nothing could look more innocent, and he was much inclined to treat the suspicion of his neighbors as of much the same nature as an accusation of witchcraft. But as the green ears began to fill, and grow heavy, a dark, broad stripe began to show itself, extending from the barberry bush entirely across the field, like a baleful shadow thrown by the slender shrub. It increased and grew darker, being clearly perceptible as far the wheat could be seen. He likens it in his description to the tail of a comet of which the bush was the head. Here

were the statements of the country people amply verified. Possessed of the fact, he went to work to find out the cause, and called in the aid of that revealer of secrets, the microscope; and the mysterious connecting link between the barberry and the wheat-blight, became clearly visible, in the form of a minute fungus, which has since become familiar to the student of micrology, under the name of *Aecidium berberis*, a plant which delights to fix itself upon the leaves of the barberry, and when it grows in proximity to wheat, spreads rapidly to the green ears, and invests the entire plant with its delicate film, to its speedy and entire destruction. It does not appear, however, to injure either the fruit or foliage of the barberry itself, and as the delicate growth was inconspicuous upon the dark leaves, it failed to attract the attention of careless observers, until it showed itself upon the growing grain. It is only one instance, out of many, of the utter blindness to the phenomena of nature, of those who live constantly and familiarly in her presence, who "having eyes see not, neither do they understand." The barberry is now cultivated in English gardens for its fruit, with great success, and we see no reason why it should not be in this country, in all the Northern and Middle States. The berry, though too acid to be eaten raw, makes a very rich and delicious preserve, or marmalade, and being very different from all our ordinary garden fruits, has the merit of piquant variety.

It is well known to all, that fruit is always improved by cultivation; even those kinds which are originally crabbed and of little worth may be rendered valuable by gentle nurture and a suitable habitat.

There are six varieties of barberry now under culture in English nurseries, the *Violacea*, having purple berries; *Alba*, with white fruit; *Lutea* (yellow); *Nigra* (black); *Dulcis* (sweet), and *Asperma*, seedless.

This last characteristic was supposed to be the result, as in most instances it is, of cultivation, but it has been proved that this is not the case. Having no seeds would greatly add to its value for culinary use.

This variety is propagated by suckers and layers; indeed, almost all of the species are, except the Chinese, which it is necessary to graft.



BARBERRY FLOWERS AND FRUIT.

The Gooseberry and the Currant, which may be justly numbered among neglected fruits, belong to the genus *Ribes*, the only genus of the order *Grossulariaceae*.

There are many species, but the differences between them, except with regard to the size or excellence of their fruits, are not such as will be appreciated except by botanists. The name gooseberry is of disputed origin; some think it derived from gorseberry, because its

prickles resemble those of the furze or gorse. Others attribute it to the use of it as a sauce for roast goose. Its range of climate and soil is wide. It is believed to be indigenous to France, Germany, and Switzerland, and Royle asserts that it had been found upon the banks of the Ganges. An English writer remarks:

"It has been seen upon the rocks near Niagara." He might have added that it grows abundantly upon the western prairies. I have myself often seen it in great abundance on the rolling prairies of Missouri when that State was still upon the frontier. The fruit was small but good, and I have no doubt might easily have been improved. The plants of either the gooseberry or the currant are too familiar to require description here. What will be chiefly interesting, is the manner in which they can be obtained more plentifully, and of better quality, to add to the variety of our summer dessert, and our winter jellies and preserves. It is true of both the gooseberry and the currant they belong to the same genus (*Ribes*), and have many points of resemblance; that they need plenty of sun, close pruning, a rather dry and light, though rich soil, and constant care to keep from being grown up with grass and weeds, and to have the earth well worked about the roots with a fork. The common method of planting in rows at the back of the garden, often beneath the shade of fruit trees, and then leaving them to take care of themselves, will produce only inferior fruit.

The care which is taken in England to bring the fruit to the highest perfection, has made the English Gooseberry, so-called, though not a native of the soil, to be esteemed more than any other, though it was first cultivated by the Dutch, and in our more kindly and generous climate, with like care, it would have a far better opportunity of improvement. Its chief enemy is mould, and if the conditions of this troublesome intruder are not supplied, the

plant will thrive. We give a cut of a kind of gooseberry which rejoices, among horticulturists, in the euphonious name of "Crown Bob," as a specimen of what fruit may be produced under favorable conditions. Among currants, *Ribes rubrum* (red), and *Ribes nigrum* (black), comprise the two most common varieties, and those most familiar to American readers, though the white are not unknown. They are among the most useful and healthful of fruits, and well worthy of better nurture than they receive in American gardens.

The red makes the most beautiful of jellies, and the black one of the most delicious. Of the last we know little, because the fruit raised is not good enough to induce its general cultivation. I must refer my readers to the cut, that they may see what size can be attained when sufficient nurture is given to it. It is from a figure furnished by Thomas, whose success in fruit culture has been long assured.

The black currant also is useful in diseases of the throat and lungs, as its slight astringency is most grateful and allays irritation. The use of these fruits, it is believed, was unknown to the ancients. Both were first brought to perfection by the Dutch.

A singular peculiarity belongs to the flowers of the black currants.

The usual number of petals, and also of stamens is five, but if either petals or stamens be increased in number, the other is diminished. If there are seven stamens there will be but three petals, and if there are ten stamens there will be no petals at all. The number of both stamens and petals together is always ten, but the proportion of one to the other often is very different.

There are several varieties of both gooseberry and currant which are cultivated solely for ornament, their fragrant and abundant flowers mingling most agreeably with the bloom of May. Some are purple, and some are of a deep rose color mingled with white.

If we could add to the wealth of our tables all that these rich fruits yield, it would be no trifling gain. The very poor specimens of them which our markets afford, are only suggestions of what they become under skillful treatment. All our fruits for the market are indeed gathered too early; currants especially should be suffered to hang long upon the stem, and are gathered soon enough if in the early days of August, when they have gained the tint of living rubies, and have garnered up in their lucent juices all the sweetness of the summer days.

The Beautiful.

BY I. W. SANBORN.

There's a beauty in nature, in the field and wood;
God made the earth and sky, and pronounced it good.

There's a beauty in manliness, and in manly grace;
There's a beauty in modesty, and an honest face.

There's a beauty in music, in its myriad form,
From the minstrelsy of birds, to the march of the storm.

There's a beauty in charity—all its forms are fair—
Beauty is a gracious gift, and dwelleth everywhere.

Talks with Girls.

BY JENNIE JUNE.

"AS OTHERS SEE US."

*"Oh! wad some power the giftie giv'e us,
To see oursel's, as others see us,
It wou'd frae mony a blunder free us,
And foolish notion."*



WHEN Burns wrote the above lines he, doubtless, had some special form of egotistic folly in his mind to which to apply them, but they fit equally so many others as to render their significance universal, and the popular recognition of their aptness world-wide.

It is quite true that the lens through which even those who know us best (sometimes, particularly those who think they know us best), is not at all flattering, it may even be distorted; it is quite true that there are people who, instead of judging according to true principles of art by merits, are always on the look-out for defects, and judge of their friends, if such persons can be said to have friends, by these alone.

It is true that an ignorant opinion, or one obtained from only partial knowledge, is pretty sure to be a false, or, at least, a one-sided opinion, and should never be expressed as conclusive, or accepted as satisfactory. It is true that there are people who will proclaim such opinions as if they were gospel truths, to the detriment of other persons, and having once said a thing will maintain it, believing, perhaps, with one of their pioneers, that "a lie well stuck to is almost as good as the truth."

It is true that appearances are deceitful, and that it is wrong to judge by them exclusively; a misfortune, indeed, to be associated with those who only judge from appearances, and have no quality in themselves by which to measure more accurately than the mere gauge of outside appearances can, the true worth of those with whom they come in contact.

All these things are true, yet, notwithstanding their truth, the verse I have quoted still retains its significance, and it is still very desirable that we could possess ourselves in some way of a magic mirror, and, instead of seeing in it our familiar lineaments, see ourselves "as others" see us. It is one of the most difficult things in the world to form an exact estimate of ourselves, or to obtain it from others. To form a correct estimate at all requires a judicial mind, one capable of estimating a person from all stand-points, and not merely the personal one from which we are apt to review them. The young, therefore, can hardly be expected to judge accurately of themselves or each other, for they are at the age when impulse and feeling are strongest, and when the experience is yet to come which is to dispel so many of their brightest illusions.

What people say, for example, young girls are very apt to think they mean, especially if it is flattering to their *amour propre*, and they will lay it to their souls, and cherish it in their dreams, when in reality the words are the idlest of seeming—mere wind chaff instead of the true incense of the heart.

It would be a great help in the formation of character if a silent mirror, such as I have spoken of, were possible, for it is doubtful if we could stand truth, even from a friend, who was in reality true and outspoken. It is so difficult to admit that truth is truth if it is disagreeable, and it is quite as difficult to speak the truth without any admixture of personal feeling of some kind or other, either kind or unkind, partial or bitter.

Suppose for once that girls, who, in the exuberance of youthful feeling and desire for a "good time," have placed themselves on terms of familiarity with young men of whom they know very little—calling them by diminutive and intimate appellations, and establishing, as they innocently and ignorantly suppose, a delightful sort of comradeship, could look into this mirror of ours and see the interpretation which the young men themselves put upon their freedom, and lack of maidenly reserve!

Suppose the belle who considers herself the admired of her circle, the bright particular star of her own little world, could see the remarks that are made about her by her own dearest and most intimate friends, would it not sicken her, and take all the good out of her life?

Suppose that thoughtless young woman could see what is being said, and what believed of acts innocent enough in themselves, but capable of misconstruction, would she not stop her imprudent career at once, and save the bitterness of a future which she is preparing for herself. But no one can tell her; she would resent it if they did, and set interference, even if well meant, down to envy, hatred, malice, and uncharitableness.

Suppose that very fastidious young gentleman who carries a cane, perhaps an eye-glass, who considers himself the autocrat of the ball-room, and his attentions as conferring unequalled distinction upon every young lady whom he may deign to honor with them, should find in his looking-glass an unexpected telephone engaged in repeating the various strictures and remarks made by his acquaintances behind his back—would he not stare? Would he not refuse at first to believe that he heard aright? and when the mournful fact was forced upon his consciousness, and he could no longer evade it, would it not, if there was a particle of manhood in him, make him resolve to get rid of the coxcomb, and cultivate qualities better worthy of respect.

Suppose the girl who devotes all her energies to a cheap display of sham jewelry, tags, cotton lace, and ribbons could see upon her mirror, and have it forced upon her in a way she could not avoid, a panorama of the remarks in regard to her want of neatness, order, thoroughness, or the folly and poverty of her poor attempts at finery! Would they not surprise her? Is it not the most common thing in the world for men and women to say to girls—"How lovely you look;" "What a