FIG. 168. *Pyrus Coronaria*.*PYRUS CORONARIA*. LINN.

## AMERICAN CRAB APPLE.

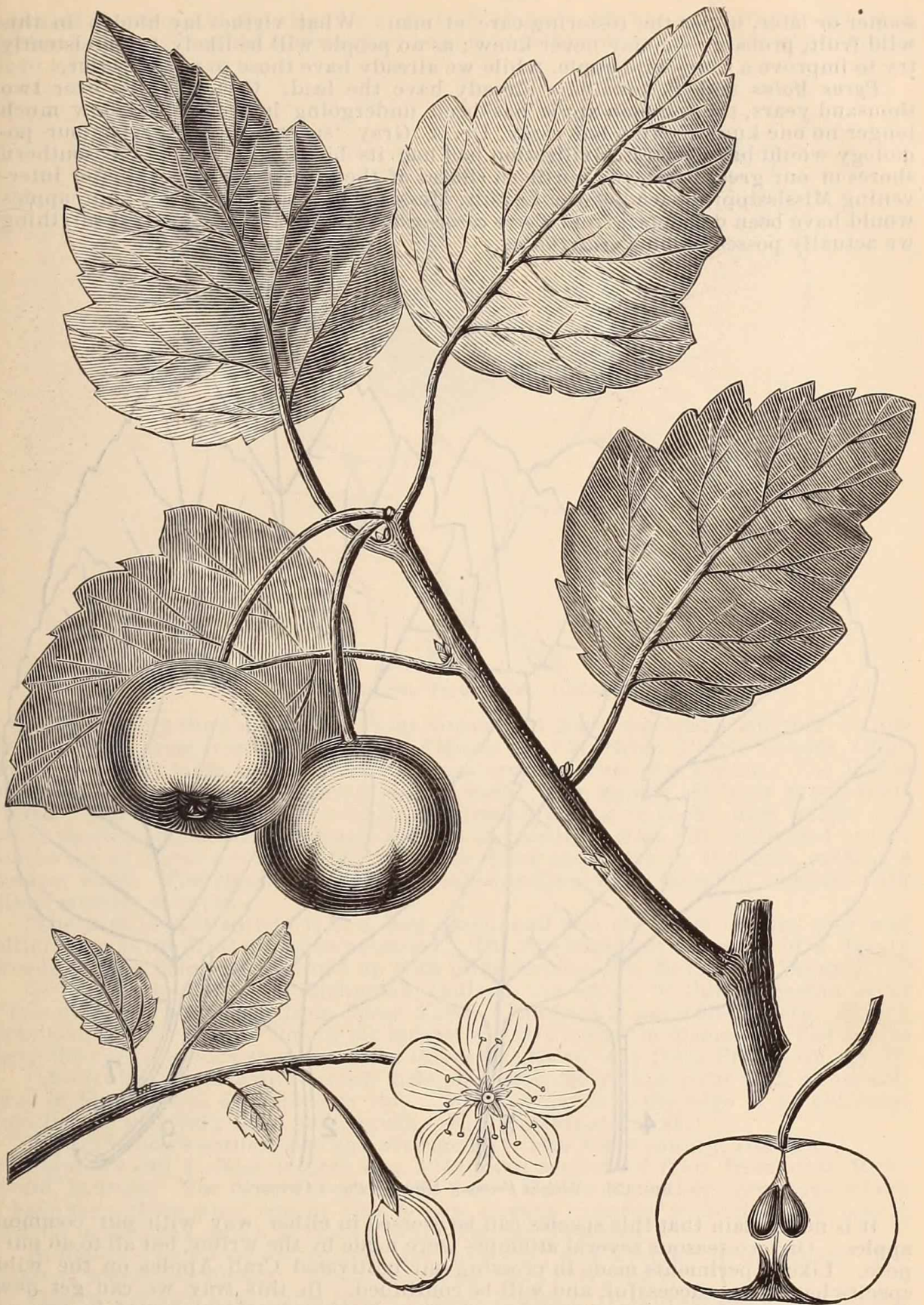
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**T**HIS small tree extends from near lake Superior in British America to Louisiana. It is especially abundant in the highest of the Alleghany mountains. It thrives in open places, in cool soil which is deep and rich; though it is not uncommon in soil of moderate fertility. The tree varies in height from fifteen to thirty feet, according to soil and climate. The diameter of the trunk is three or four inches, but in some cases it reaches fifteen inches. The leaves are ovate or broad ovate, variously cut, serrate, and often lobed. The flowers are quite large, in corymbs, pale rose color, and very fragrant. The fruit is about one to one and a half inches in diameter, flat, globular, with a slight abrupt folded basin, and a very shallow cavity. The color is yellowish green, unctuous, and very acid.

The plate contains an illustration of a branch with leaves and two apples, with a section of a third, about two-thirds the natural size; also a flower and a flower bud. The latter is copied from Michaux's North American Sylva. There are thirty-five or forty species of *Pyrus*, natives of both hemispheres, in the north temperate zone. Along the Alleghanies there is a narrow leaved Crab Apple, which may be a distant species from the one here figured. In Oregon we find *P. rivularis*, which bears small, reddish yellow fruit, about the size of that borne by Mountain Ash; the Indians use it for food.

To a limited extent, the Crab Apple has been tried as a hedge plant. It is well adapted to a high northern latitude; is a very stiff grower, well covered with sharp spines; grows faster than hawthorne; is hardy and not liable to disease. At Michigan Agricultural College, there has been started a short hedge of this plant.



FIG. 169. *Pyrus Coronaria*.—After Michaux.

In the city of Lansing, near by, is a close row along the front line of a city lot. These trees have been allowed to grow in a natural way. When in flower, the display is very fine, filling the air with their delightful perfume. The thorns, rough bark, crooked limbs, and rather open top, gives the tree a rather picturesque appearance. Perhaps these may be some of the reasons why it is not much used in this country as an ornamental tree, though it has long been considered one of the prettiest flowering shrubs in England.

The American Crab Apple is probably capable of improvement by selection and cultivation. Why not? Every thing that has been faithfully tried has improved



sooner or later, under the fostering care of man. What virtues lay hidden in this wild fruit, probably we may never know; as no people will be likely to persistently try to improve a sour, wild apple, while we already have those so much better.

*Pyrus Malus* and *P. prunifolia* already have the lead. Certainly, for over two thousand years, the common apple has been undergoing improvement; how much longer no one knows. In a late essay, Dr. A. Gray "speculates as to what our pomology would have been if civilization had had its birth place along the southern shores of our great lakes, the northern shores of the gulf of Mexico and the intervening Mississippi, instead of the Levant, Messopotamia, and the Nile;" our apples would have been developed from *Pyrus coronaria* and might have equalled anything we actually possess from *Pyrus Malus*.

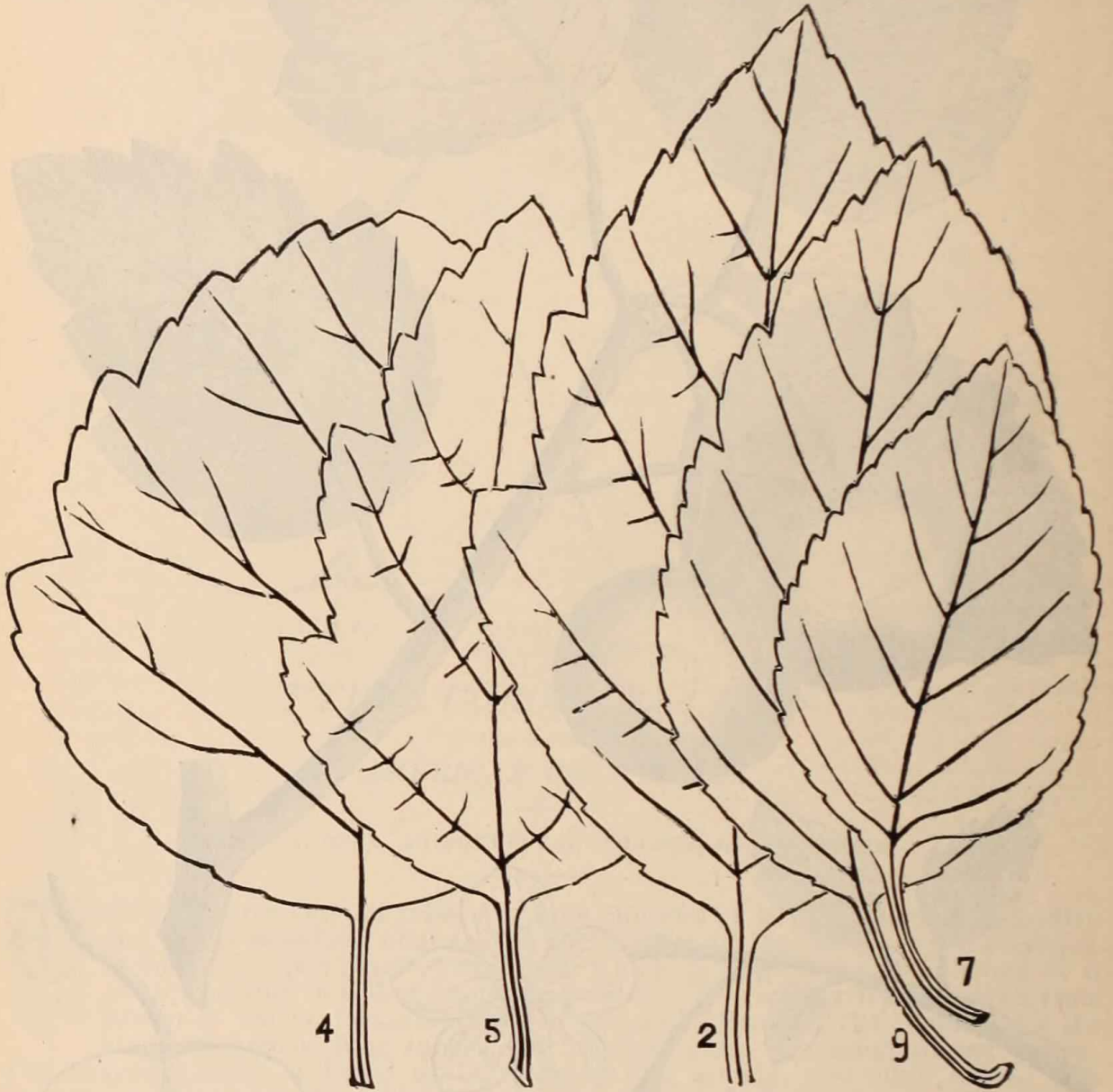


FIG. 170. Various Forms of Leaves of *Pyrus Coronaria*.

It is not certain that this species can be crossed in either way with our common apples. On two seasons several attempts were made by the writer, but all to no purpose. Like experiments made in crossing our cultivated Crab Apples on the wild species have been successful, and will be continued. In this way we can get new blood into our cultivated Crabs, and, perhaps, gain some desirable point in tree or fruit for the coldest parts of our country. It may, however, turn out like a cross of our common cattle with the American bison; no advantage to the buffalo, and a great detriment to our cattle. J. G. Soulard, in the Horticultural Report of Illinois, for 1868, speaks of some trees which were cultivated and bore fruit three or four times the size of the ordinary fruit. He fancied they were not quite so harsh. The tree originated in Missouri, and was thought to be the result of a cross with our common apple, some of which grew in the immediate vicinity. Some specimens of the fruit were seven inches around. It is valuable for cooking, preserving, and jellies. He adds: "It will keep for two years with common care in a cellar, and will stand



repeated freezing and thawing in a darkish place." Perhaps he might add, that without damage, it could be shaken or beaten from the tree and taken loosely to market in a lumber wagon.

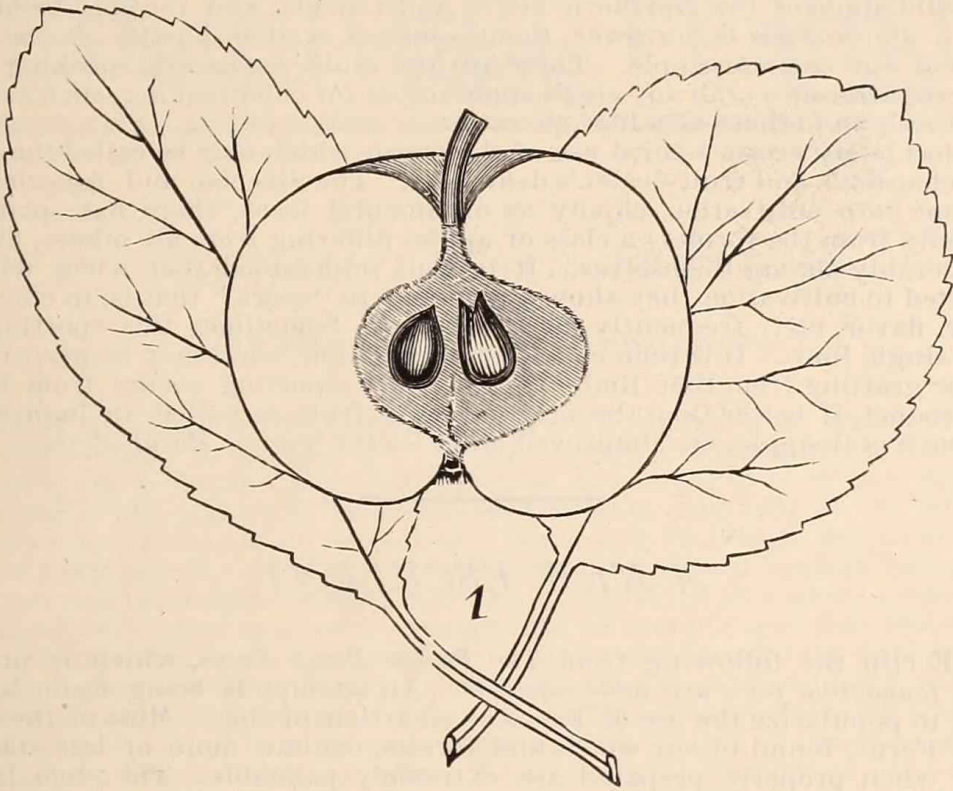


FIG. 171. Seedling from *Pyrus Malus*. (Cultivated Apple.)

Since writing the above about *Pyrus coronaria*, I have received a number of lots of specimens from various sources. Figures 111 are from Preble county, Ohio. The tree is very large, and produces a large crop of fruit every year. The leaves show no signs of lobes; not even coarse teeth. The apples all have short, stout stems. The eye is closed. The styles are slender, and unite at the base unlike any other mentioned below. I presume the tree is a seedling from our cultivated apple. In the eye of *Pyrus coronaria* the styles are stout and thick at the base, making a conical mass. The specimens were in alcohol and were not tasted to compare with other samples received.

[The fruit of this variety is of a deep green, and has the same intense sour and bitter taste as the fruit of *Pyrus coronaria*. The tree stands in the edge of a densely wooded forest, completely grown up with underbrush.—ED. BOTANICAL INDEX.]

Of another lot from near Richmond, Indiana, the editor of this magazine says: "It is evidently a seedling from *Pyrus Malus*. The fruit is small and knotty. Every specimen is deformed." One of the largest was two inches in diameter. The apples have the eye, the short stems, and the leaves like those sent from Preble county, O.

[The fruit has a pleasant, tartish taste, of a greenish yellow color with a rose colored or blush blotch on the sunny side. The tree stands in the edge of an old original forest, with very little underbrush.—ED. BOTANICAL INDEX.]

Figure 2 shows natural size and average leaf from Stark county, Indiana.

Figures 4 and 4 show natural size, a leaf, and section of fruit from near Richmond, Indiana. The fruit was unusually fair. Unlike any other specimens which I have seen, there were one or two brown streaks running from the base nearly around to the apex, much as is seen in the Tolman Sweeting.

In figures 5 and 5 we see natural size; one leaf; and a section of an apple. The latter is somewhat oblong. These were from Iowa City, Iowa.

Figure 7 shows a leaf from Henry county, Indiana. It is ovate and finely serrate.

Another lot of samples, from Indianapolis, contains leaves varying in shape from that shown in figure 4 to that shown in figure 7.

#### WHAT IS A "CRAB-APPLE?"

T. H. Hopkins writes to *Land and Home* as follows: Some writers seem to be somewhat "mixed" on this subject. This, perhaps, is due to forgetfulness of the fact that the word "crab," as commonly used, has no definite meaning. Botanically, a crab-apple is a wild apple. Of these there are several species, the best known of



which are: (1.) The European crab, *Pyrus malus*. (2.) The Siberian crab, *Pyrus baccata*. (3.) The American crab, *Pyrus coronaria*. (4.) The narrow-leaved crab, *Pyrus angustifolia*. The last two named are both American crabs, No. 3. being the common wild apple of the Northern States and Canada, and the last belonging to the South. *P. coronaria* is, however, found south as well as north. *P. malus* is the wild form of our common apple. These are the crabs, *botanically* speaking; but pomology recognizes as a crab any small apple suited for cider making, such as Hughes' Virginia Crab, and others of a like character.

There has lately arisen a third use of the word, which may be called the nurseryman's, orchardist's and fruit-dealer's definition. The Siberian and American crabs having come into cultivation chiefly as ornamental trees, there has sprung from them (chiefly from the former) a class of apples differing from all others, and varying considerably among themselves. It is well understood that when wild fruits are subjected to cultivation they show a tendency to "sport," that is, to change their size, color, flavor, etc., frequently for the better. Sometimes this sporting occurs only on a single limb. It is then called "bud variation," and may be perpetuated by budding or grafting from that limb. But, usually, sporting occurs from the seed, and the product, if better than the original wild fruit, is called an improved sort, and if from a crab-apple, an "improved crab."—*The Pacific Rural Press*.

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## A NEW ESCULENT.

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W E clip the following from *The Pacific Rural Press*, which is probably a foundation for a new table vegetable. An attempt is being made in France to popularize the use of Ferns as an article of diet. Most of the common Ferns, found in our woods and forests, contain more or less starch, and when properly prepared are extremely palatable. The stem, as it lies buried in the ground, is of very unpleasant taste and smell, and it would be impossible to use it in this state. So, too, are the young shoots of asparagus altogether unfit to eat before they have protruded through the soil of the beds on which they are grown. But, like them, the Fern, when exposed to the air and sunlight, becomes fleshy, white, tender, and of remarkable delicate flavor. One of the most famous landscape painters of France is said to pride himself more on his invention of an "ome-lette aux pointes de fougere," than on any of his highly successful artistic productions. His *specialite* is prepared from the commonest variety of all, the ordinary brake Fern. As yet the use of Ferns for food in France is very restricted, and the authors of the crusade in its favor are seeking to gain converts to their doctrine by pointing to the example of other countries. In Japan, for instance, the inhabitants of the lofty clay hill-lands almost live on the Fern all the year round. In spring they eat the tender young leaves, called "Warabi," and later in the season, on the starch which they extract from the roots. This is prepared by washing the roots, bruising them with a mallet, and stirring the crushed pieces in vessels of water, at the bottom of which the starch is deposited. The vessels used are generally made from the hollowed trunks of trees. As much as 15 per cent. by weight is often obtained from the roots thus treated. Every hamlet in Japan has a special place set apart for this process, the heaps of residue around which indicate the great extent to which it is carried on. To ensure a rich growth of Ferns, the natives are accustomed to burn down the herbage and brushwood under the oak and chestnut trees every second or third year.

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## THE AMERICAN GRAPE CROP, 1879.

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Among the many growing industries of the United States, of which only a passing notice is usually given is that of the Vinticulturist or grape growing. All our people in different portions of the country grow large quantities for their own use, of which no account is ever taken in making up the annual tables of the crop so that only a very indefinite estimate can be made. From the three largest grape producing sections of the country we learn the crop for 1879 to be: Missouri, with 1,500 acres in cultivation, producing 500,000 gallons of wine; Sandusky, Ohio, and vicinity (including the Lake Erie Islands) has 4,000 acres in cultivation, producing 16,000,000 pounds of fruit, and the reported quantity of wine produced is given as 1,526,400 gallons; California has 60,000 acres set with 45,000,000 vines and represents in money value (including the land) \$30,000,000.