



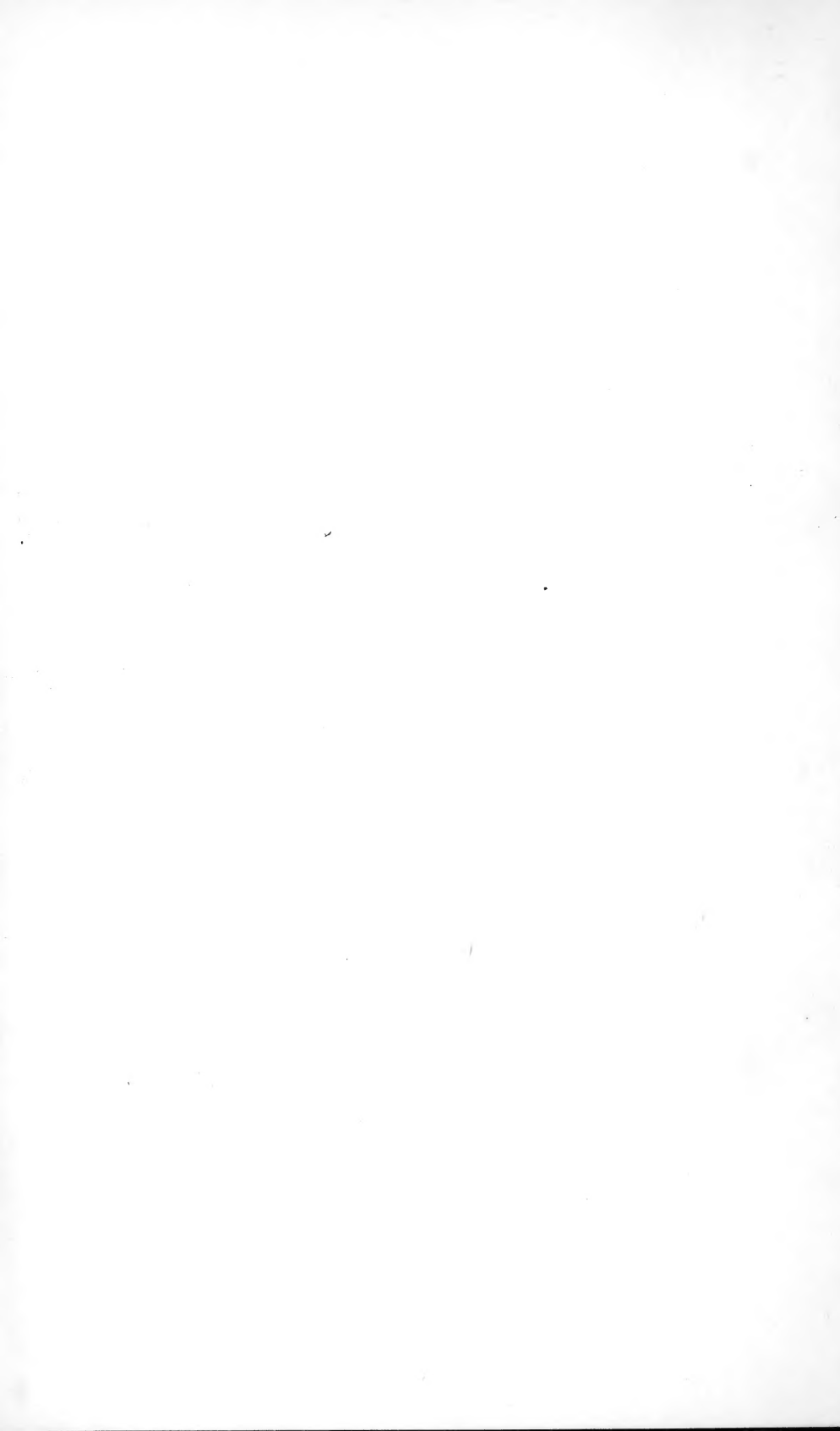
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THE
FRUITS AND FRUIT-TREES
OF
AMERICA;

OR,
THE CULTURE, PROPAGATION, AND MANAGEMENT, IN THE
GARDEN AND ORCHARD, OF FRUIT-TREES GENERALLY;

WITH
DESCRIPTIONS OF ALL THE FINEST VARIETIES OF FRUIT, NATIVE
AND FOREIGN, CULTIVATED IN THIS COUNTRY.

BY A. J. DOWNING,

CORRESPONDING MEMBER OF THE ROYAL BOTANIC SOCIETY OF LONDON; AND OF THE HORTICULTURAL SOCIETIES OF BERLIN, THE LOW COUNTRIES, MASSACHUSETTS, PENNSYLVANIA, INDIANA, CINCINNATI, ETC.

*Second Revision and Correction, with large Additions and an Appendix of 1872,
including many New Varieties,*

By CHARLES DOWNING.

13

APPLES.



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TO
MARSHALL P. WILDER, Esq.,
PRESIDENT OF THE
MASSACHUSETTS HORTICULTURAL SOCIETY,
THIS VOLUME IS DEDICATED,
BY HIS FRIEND,
THE AUTHOR.



A NOTE

ON THE

FRUITS OF CALIFORNIA

SINCE the publication of the recent edition of this book, the author has visited California, and his observations in that newly developed region have elicited the facts that fruit trees grow much faster there, and come into bearing much earlier than with us, and it may be fairly inferred, therefore, that they will not be as long-lived.

The same varieties of Apples, Pears, Peaches, Plums, Apricots, Cherries, &c., are grown as with us; but all kinds of fruit, especially some kinds of Apples, do not succeed equally well as in the Eastern States. The following sorts were considered most profitable: Williams' Favorite, Early Strawberry, Red Astrachan, Early Harvest, Winesap, Rawles' Janet, Newtown Pippin, White Winter Pearmain, Smith's Cider, Yellow Belflower. Newtown Pippin best and most profitable. The Northern Spy and Baldwin had failed.

The fruit is rather larger, fairer, and handsomer, and the quality equally good, except Strawberries and Blackberries, which were not quite as high flavored. Grapes are grown extensively in many localities, and succeed admirably. They are chiefly of the foreign varieties, and are grown in the open air, without protection, requiring but little labor, compared with our system of cultivation.

They are grown in the tree form on stems or stumps from two to three feet high, and those from ten to fifteen years old are from five to six inches in diameter. The vines are planted from seven to eight feet apart, each way. They are pruned, annually, back to the stems, and when the new shoots have grown five or six inches, all are thinned out, except ten or twelve of the strongest, and in most vineyards they have no further care till gathering time, except to keep the ground clean.

In some orchards that had been neglected, the trees were failing, and I was told that if the ground was not cultivated and the trees cared for, they soon died.

We found Figs abundant and of fine quality in nearly every locality we visited. English Walnuts, or Madeira Nuts, Almonds, and Olives are grown successfully in most places.

The climate and soil are favorable for fruit-growing. In the latter, clay predominates. The characteristics of fruit are about the same as with us.

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PREFACE.

A MAN born on the banks of one of the noblest and most fruitful rivers in America, and whose best days have been spent in gardens and orchards, may perhaps be pardoned for talking about fruit-trees.

Indeed the subject deserves not a few, but many words. "Fine fruit is the flower of commodities." It is the most perfect union of the useful and the beautiful that the earth knows. Trees full of soft foliage; blossoms fresh with spring beauty; and, finally,—fruit, rich, bloom-dusted, melting, and luscious,—such are the treasures of the orchard and the garden, temptingly offered to every landholder in this bright and sunny, though temperate climate.

"If a man," says an acute essayist, "should send for me to come a hundred miles to visit him, and should set before me a basket of fine summer fruit, I should think there was some proportion between the labor and the reward."

I must add a counterpart to this. He who owns a rood of proper land in this country, and, in the face of all the pomonal riches of the day, only raises crabs and choke-pears, deserves to lose the respect of all sensible men. The classical antiquarian must pardon me for doubting if, amid all the wonderful beauty of the golden age, there was anything to equal our delicious modern fruits—our honeyed Seckels, and Beurrés, our melting Rareripes. At any rate, the science of modern horticulture has restored almost everything that can be desired to give a paradisiacal richness to our fruit-gardens. Yet there are many in utter ignorance of most of these fruits, who seem to live under some ban of expulsion from all the fair and goodly productions of the garden.

Happily, the number is every day lessening. America is a *young orchard*, but when the planting of fruit-trees in one of the newest States numbers nearly a quarter of a million in a single year; when there are more peaches exposed in the markets of New York, annually, than are raised in all France; when American apples, in large quantities, command double prices in European markets; there is little need for entering into any praises of this soil and climate generally, regarding the culture of fruit. In one part or another of the Union every man may, literally, sit under his own vine and fig-tree.

It is fortunate for an author, in this practical age, when his subject requires no explanation to show its downright and direct usefulness. When I say I heartily desire that every man should cultivate an orchard, or at least a tree, of good fruit, it is not necessary that I should point out how much both himself and the public will be, in every sense, the gainers. . . Otherwise I might be obliged to repeat the advice of Dr. Johnson to one of his friends. "If possible," said he, "have a good orchard. I know a clergyman of small income who brought up a family very reputably, which he chiefly fed on apple dumplings."(!)

The first object, then, of this work is to increase the taste for the planting and cultivation of fruit-trees. The second one is to furnish a manual for those who, already more or less informed upon the subject, desire some work of reference to guide them in the operations of culture, and in the selection of varieties.

If it were only necessary for me to present for the acceptance of my readers a choice garland of fruit, comprising the few sorts that I esteem of the most priceless value, the space and time to be occupied would be very brief.

But this would only imperfectly answer the demand that is at present made by our cultivators. The country abounds with collections of all the finest foreign varieties; our own soil has produced many native sorts of the highest merit; and from all these, kinds may be selected which are highly valuable for every part of the country. But opinions differ much as to the merits of some sorts. Those which succeed perfectly in one section, are sometimes ill-adapted to another. And, finally, one needs some accurate description to know, when a variety comes into bearing, if its fruit is genuine, or even to identify an indifferent kind, in order to avoid procuring it again. Hence the number of varieties of fruit that are admitted here. Little by little I have summoned them into my pleasant and quiet court, tested them as far as possible, and endeavored to pass the most impartial judgment upon them. The verdicts will be found in the following pages.

From this great accumulation of names, Pomology has become an embarrassing study, and those of our readers who are large collectors will best understand the difficulty—nay, the impossibility of making a work like this perfect.

Towards settling this chaos in nomenclature, the exertions of the Horticultural Society of London have been steadily directed for the last twenty years. That greatest of experimental gardens contains, or has contained, nearly all the varieties of fruit, from all parts of the world, possessing the least celebrity. The vast confusion of names, dozens sometimes meaning the same variety, has been by careful comparison reduced to something like real order. The relative merit of the kinds has been proved and published. In short, the horticultural world owes

this Society a heavy debt of gratitude for these labors, and to the science and accuracy of Mr. Robert Thompson, the head of its fruit department, horticulturists here will gladly join me in bearing the fullest testimony.

To give additional value to these results, I have adopted in nearly all cases, for fruits known abroad, the nomenclature of the London Horticultural Society. By this means I hope to render universal on this side of the Atlantic the same standard names, so that the difficulty and confusion which have always more or less surrounded this part of the subject may be hereafter avoided.

These foreign fruits have now been nearly all proved in this country, and remarks on their value in this climate, deduced from actual experience, are here given to the public. To our native and local fruits especial care has also been devoted. Not only have most of the noted sorts been proved in the gardens here, but I have had specimens before me for comparison, the growth of no less than fourteen of the different States. There are still many sorts, nominally fine, which remain to be collected, compared, and proved; some of which will undoubtedly deserve a place in future editions. To the kindness of pomologists in various sections of the country I must trust for the detection of errors in the present volume, and for information of really valuable new varieties.*

Of the *descriptions* of fruit, some explanation may be necessary. First, is given the *standard* name in capitals. Below this are placed, in smaller type, the various *synonymes*, or local names, by which the same fruit is known in various countries or parts of the country. Thus, on page 761, is the following:

FLEMISH BEAUTY.

Belle de Flandres.	Poire Davy.
Bosch Nouvelle.	Impératrice de France.
Bosch.	Fondant du Bois.
Bosc Sire.	Boschpeer.
Beurré Spence (<i>erroneously</i>).	

By this is signified, first, that FLEMISH BEAUTY is the *standard* name of the pear; secondly, that the others—*synonymes*—are various local names by which the Flemish Beauty is also known in various places; and, lastly, that by the latter name—Beurré Spence—it is *incorrectly* known in some collections, this name belonging to another distinct pear.

It is at once apparent that one of the chief points of value of a book like this, lies in the accuracy with which these synonymous names

* It is well to remark that many of the so-called new varieties, especially from the West, prove to be old and well-known kinds, slightly altered in appearance by new soil and different climate. A new variety must possess very superior qualities to entitle it to regard, now that we have so many fine fruits in our collections.

are given—since a person might, in looking over different catalogues issued here and abroad, suppose that all ten of the above are different varieties—when they are really all different names for a single pear. In this record of synonymes, I have therefore availed myself of the valuable experience of the London Horticultural Society, and added all the additional information in my own possession.

Many of the more important varieties of fruit are shown in *outline*. I have chosen this method as likely to give the most correct idea of the form of a fruit, and because I believe that the mere outline of a fruit, like a profile of the human face, will often be found more characteristic than a highly finished portrait in color. The outlines have been nearly all traced directly from fruits grown here. *They are from specimens mostly below the average size.* It has been the custom to choose the largest and finest fruits for illustration—a practice very likely to mislead. I believe the general character is better expressed by specimens of medium size, or rather below it.

It only remains for me to present my acknowledgments to the numerous gentlemen, in various parts of the country, who have kindly furnished information necessary to the completion of the work. The names of many are given in the body of the volume. But to the following I must especially tender my thanks, for notes of their experience, or for specimens of fruits to solve existing doubts.

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A. J. D.

HIGHLAND GARDENS,)
Newburgh, N. Y., May, 1845. }

PREFACE TO THE SECOND REVISION.

THE second revision of the FRUITS AND FRUIT-TREES OF AMERICA, originally written by my lamented brother, in 1845, has been undertaken with very great hesitancy; but the extended increased interest in fruit-culture, and demand for this work, have seemed to require of me such aid in its construction, commensurate with the progress of the age, as I could command.

I have therefore, by the assistance of numerous friends in all parts of the States and the Canadas, gathered together material, and embodied, enlarged, and revised the work, trusting that the desire to assist, aid, and continue the advancement of fruit-culture may be taken as the incentive which has guided my labors; and that imperfections will not be too freely commented upon, without careful thought of the time and observation, etc., requisite in deciding many points in Pomology. The correcting or deciding relative to the various names under which one fruit is known in different sections, was originally a feature of great difficulty, even when they were brought together and grown in one garden, as by the London Horticultural Society; but when this has to be done with the varieties spread over such a wide territory, and with so many varied climates and soils as ours, the task is one of no light character. At the first writing of this book the accumulation of names was such as to then cause the study of Pomology to be counted as an embarrassing one. What then shall we say of it now, when the list of names has been more than trebled? New varieties have sprung into existence with the magic rapidity belonging to everything of our country; but, unfortunately, regard has not always been had to the qualifications which should have been by them possessed ere their introduction to our lists; and at this day I may safely say that not perhaps one in thirty of the recent introductions, for the past twenty years, will bear the criticism of a first-class fruit.

In my revision I have endeavored to keep as near as possible the simple arrangement of the original, omitting the arrangement of classes and periods of ripening, and placing the whole alphabetically in order, trusting to the text description to give the information sought by the reader. The nomenclature of the London Horticultural Society in the original edition has been retained, and, so far as known, I have continued the original name by which each fruit was first described, as its true name, appending all others as synonyms.

In the first edition of this work the names of authors who had

before given descriptions of the fruits were appended to each description, but owing to the great number of names such a record would now make, and to its little practical benefit, I have omitted it.

In the labor of ascertaining synonyms and identifying disputed varieties, much credit is due to the American Pomological, Massachusetts, Western New York, Ohio, Illinois, Indiana, Missouri, and other kindred Societies, by their gathering and comparing great numbers of specimens from various sources, and in the accumulation of knowledge and opinions here reported as the result of long-continued examinations of private individuals. But the confusion of names yet exists to a large extent, and while much has been done toward correction, order and accuracy can only be arrived at when the different varieties are well grown in the same soil and locality, a result only to be realized in an experimental garden on a large scale.

The place of origin of each variety has been attached whenever it could be truly traced or known; but many are noted only as having been received from certain States or sections, their origin being possibly in another State. The period of maturity has been given as its period when fruited here; but it is well known locations South or North cause great changes in this respect, as well as in quality, and many good long-keeping winter apples of this section, when grown in our Southern States, become early autumn and inferior sorts. Again, nearly all varieties of our early summer fruits, although ripened at an earlier period, are equal, if not improved, in size and quality when grown at the South.

In the revision of a former edition, as well as in aid of revision of the present, I have received valuable notes, specimens of fruits, &c., from a large number of gentlemen, and in here making my grateful acknowledgments, I desire to record all names as a simple tribute, although some have passed from this land of chaotic terrestrial fruit to that where order and system ever reigns.

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In Nova Scotia—to C. C. Hamilton, Cornwallis.

CHARLES DOWNING.

ABBREVIATIONS AND BOOKS QUOTED.

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- Dom. Gard.* The Domestic Gardener's Manual. By John Towers. London, 1839, 8vo.
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- Floy*. Lindley's Guide to the Orchard. American ed., with additions by Michael Floy. New York, 1833, 12mo.
- Fessenden*. New American Gardener, containing practical Directions for the Culture of Fruits and Vegetables. By Thos. E. Fessenden. Boston, 1828, 12mo.
- Gard. Mag.* The Gardener's Magazine, conducted by J. C. Loudon. In monthly Nos. 8vo, 19 vols. to 1844, London.

- Gard. Chron.* The Gardener's Chronicle and Agricultural Gazette, edited by Professor Lindley. A weekly journal, 4to, 5 vols., 1844 to the present time.
- Hoare.* A Practical Treatise on the Cultivation of the Grape Vine on open walls. By Clement Hoare. London, 1840, 12mo.
- Hort. Soc. Cat.* See *Thompson*.
- Hort. Trans.* Transactions of the Horticultural Society of London. London 4to, 1815, and at intervals to the present time.
- Hooker.* Pomona Londonensis. By William Hooker. London, 1813, 4to.
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FRUITS AND FRUIT-TREES.

CHAPTER I.

THE PRODUCTION OF NEW VARIETIES OF FRUIT.

IN our survey of the culture of fruits let us begin at the beginning. Gradual amelioration, and the skilful practice of the cultivator, have so filled our orchards and gardens with good fruits, that it is necessary now to cast a look back at the types from which these delicious products have sprung.

In the tropical zone, amid the surprising luxuriance of vegetation of that great natural hot-house, nature offers to man, almost without care, the most refreshing, the most delicious, and the most nutritive fruits. The Plantain and Banana, excellent either raw or cooked, bearing all the year, and producing upon a rood of ground the sustenance of a family; the refreshing Guava and Sapodilla; the nutritious Bread-fruit; such are the natural fruit-trees of those glowing climates. Indolently seated under their shade, and finding a refreshing coolness both from their ever-verdant canopy of leaves, and their juicy fruits, it is not here that we must look for the patient and skilful cultivator.

But, in the temperate climates, nature wears a harsher and sterner aspect. Plains bounded by rocky hills, visited not only by genial warmth and sunshine, but by cold winds and seasons of ice and snow; these are accompanied by sturdy forests, whose outskirts are sprinkled with crabs and wild cherries, and festooned with the clambering branches of the wild grape. These native fruits, which at first offer so little to the eye or the palate, are nevertheless the types of our garden varieties. Destined in these climates to a perpetual struggle with nature, it is here that we find man ameliorating and transforming her.

Transplanted into a warmer aspect, stimulated by a richer soil, reared from selected seeds, carefully pruned, sheltered, and watched, by slow degrees the sour and bitter crab expands into a Golden Pippin, the wild pear loses its thorns and becomes a Bergamotte or a Beurré, the Almond is deprived of its bitterness, and the dry and flavorless Peach is at length a tempting and delicious fruit. It is thus only, in the face of obstacles, in a climate where nature is not prodigal of perfections, and in the midst of thorns and sloes, that MAN, THE GARDENER, arises and forces nature to yield to his art.

These improved sorts of fruit, which man everywhere causes to share his civilization, bear, almost equally with himself, the impress of an exist-

ence removed from the natural state. When reared from seeds they always show a tendency to return to a wilder form, and it seems only *chance* when a new seedling is equal to, or surpasses its parent. Removed from their natural form, these artificially created sorts are also much more liable to diseases and to decay. From these facts arises the fruit-garden, with its various processes of grafting, budding, and other means of continuing the sort; with also its sheltered aspects, warm borders, deeper soils, and all its various refinements of art and culture.

In the whole range of cares and pleasures belonging to the garden, there is nothing more truly interesting than the production of new varieties of fruit. It is not, indeed, by sowing the seeds that the lover of good fruit usually undertakes to stock his garden and orchard with fine fruit-trees. Raising new varieties is always a slow, and, as generally understood, a most uncertain mode of bringing about this result. The novice plants and carefully watches his hundred seedling pippins, to find at last, perhaps, ninety-nine worthless or indifferent apples. It appears to him a lottery, in which there are too many blanks to the prizes. He therefore wisely resorts to the more certain mode of grafting from well-known and esteemed sorts.

Notwithstanding this, every year, under the influences of garden culture, and often without our design, we find our fruit-trees reproducing themselves; and occasionally there springs up a new and delicious sort, whose merits tempt us to fresh trials after perfection.

To a man who is curious in fruit,—the pomologist,—who views with a more than common eye the crimson cheek of a peach, the delicate bloom of a plum, or understands the epithets, rich, melting, buttery, as applied to a pear, nothing in the circle of culture can give more lively and un-mixed pleasure than thus to produce and to create—for it is a sort of creation—an entirely new sort, which he believes will prove handsomer and better than anything that has gone before. And still more: as varieties which originate in a certain soil and climate are found best adapted to that locality, the production of new sorts of fruit of high merit may be looked on as a most valuable as well as interesting result.

Besides this, all the fine new fruits which of late figure so conspicuously in the catalogues of the nurseries and fruit-gardens, have not been originated at random and by chance efforts. Some of the most distinguished pomologists have devoted years to the subject of the improvement of fruit-trees by seeds, and have attained, if not certain results, at least some general laws, which greatly assist us in this process of amelioration. Let us therefore examine the subject a little more in detail.

In the wild state, every genus of trees consists of one or more *species*, or strongly marked individual sorts; as, for example, the white birch and the black birch; or, to confine ourselves more strictly to the matter in hand, the different species of cherry,—the wild or bird cherry, the sour cherry, the mazard cherry, &c. These *species*, in their natural state, exactly reproduce themselves; to use a common phrase, they “come the same” from seed. This they have done for centuries, and doubtless will do forever, so long as they exist under natural circumstances only.

On the other hand, suppose we select one of these *species* of fruit-trees and adopt it into our gardens. So long as we cultivate that individual tree, or any part of it, in the shape of sucker, graft, or bud, its nature will not be materially altered. It may, indeed, through cultiva-

tion, be stimulated into a more luxuriant growth; it will probably produce larger leaves and fruit; but we shall neither alter its fruit in texture, color, or taste. It will always be identically the same.

The process of amelioration begins with a new generation, and by sowing the seeds. Some species of tree, indeed, seem to refuse to yield their wild nature, never producing any variation by seed; but all fruit-trees, and many others, are easily *domesticated*, and more readily take the impress of culture.

If we sow a quantity of seed in garden soil of the common black mazard cherry (*Cerasus avium*), we shall find that, in the leaves and habit of growth, many of the seedlings do not entirely resemble the original species. When they come into bearing, it is probable we shall also find as great a diversity in the size, color, and flavor of the fruit. Each of these individual plants differing from the original type (the mazard) constitutes a new *variety*; though only a few, perhaps only one, may be superior to the original species.

It is worthy of remark, that exactly in proportion as this reproduction is frequently repeated, is the change to a great variety of forms or new sorts increased. It is likely, indeed, that to gather the seeds from a wild mazard in the woods, the instances of departure from the form of the original species would be very few; while if gathered from a garden tree, itself some time cultivated, or several removes from a wild state, though still a mazard, the seedlings will show great variety of character.

Once in the possession of a *variety* which has *moved out* of the natural into a more domesticated form, we have in our hands the best material for the improving process. The fixed original habit of the species is broken in upon, and this variety which we have created has always afterwards some tendency to make further departures from the original form. It is true that all or most of its seedlings will still retain a likeness to the parent, but a few will differ in some respects, and it is by seizing upon those which show symptoms of variation that the improver of vegetable races founds his hopes.

We have said that it is a part of the character of a species to produce the same from seed. This characteristic is retained even where the *sport* (as gardeners term it) into numberless varieties is greatest. Thus, to return to cherries: the Kentish or common pie-cherry is one species, and the small black mazard another, and although a great number of varieties of each of these species have been produced, yet there is always the likeness of the species retained. From the first we may have the large and rich Mayduke, and from the last the sweet and luscious Black-Hearts; but a glance will show us that the duke cherries retain the distinct dark foliage, and, in the fruit, something of the same flavor, shape, and color of the original species; and the heart cherries the broad leaves and lofty growth of the mazard. So too the currant and gooseberry are different species of the same genus; but though the English gooseberry-growers have raised thousands of new varieties of this fruit, and shown them as large as hens' eggs, and of every variety of form and color, yet their efforts with the gooseberry have not produced anything resembling the common currant.

Why do not varieties produce the same from seed? Why, if we plant the stone of a Green Gage plum, will it not always produce a Green Gage? This is often a puzzling question to the practical gardener, while his every-day experience forces him to assent to the fact.

We are not sure that the vegetable physiologists will undertake to answer this query fully. But in the mean time we can throw some light on the subject.

It will be remembered that our garden varieties of fruits are not natural forms. They are the artificial productions of our culture. They have always a *tendency to improve*, but they have also another and a stronger *tendency to return to a natural or wild state*. "There can be no doubt," says Dr. Lindley, "that if the arts of cultivation were abandoned for only a few years, all the annual varieties of plants in our gardens would disappear and be replaced by a few original wild forms." Between these two tendencies, therefore, the one derived from nature, and the other impressed by culture, it is easily seen how little likely is the progeny of varieties always to reappear in the same form.

Again, our American farmers, who raise a number of kinds of Indian corn, very well know that, if they wish to keep the sorts distinct, they must grow them in different fields. Without this precaution they find, on planting the seeds produced on the yellow-corn plants, that they have the next season a progeny not of yellow corn alone, but composed of every color and size, yellow, white, and black, large and small, upon the farm. Now many of the varieties of fruit-trees have a similar power of intermixing with each other while in blossom by the dust or pollen of their flowers, carried through the air by the action of bees and other causes. It will readily occur to the reader, in considering this fact, what an influence our custom of planting the different varieties of plum or of cherry together in a garden or orchard must have upon the constancy of habit in the seedlings of such fruits.

But there is still another reason for this habit, so perplexing to the novice, who, having tasted a luscious fruit, plants, watches, and rears its seedling, to find it, perhaps, wholly different in most respects. This is the influence of *grafting*. Among the great number of seedling fruits produced in the United States, there is found occasionally a variety, perhaps a plum or a peach, which will nearly always reproduce itself from seed. From some fortunate circumstances in its origin, unknown to us, this sort, in becoming improved, still retains strongly this habit of the natural or wild form, and its seeds produce the same. We can call to mind several examples of this; fine fruit-trees whose seeds have established the reputation in the neighborhood of fidelity to the sort. But when a *graft* is taken from one of these trees, and placed upon another stock, this grafted tree is found to lose its singular power of producing the same by seed, and becomes like all other worked trees. The stock exercises some, as yet, unexplained power in dissolving the strong natural habit of the variety, and becomes, like its fellows, subject to the laws of its artificial life.*

When we desire to raise new varieties of fruit, the common practice

* The doctrine here advanced has perhaps no foundation in fact, nor has there been any test made that, to our knowledge, would controvert it. Observation of many years, however, leads to the belief that the mere engrafting a variety upon another stock in no way affects its habit or capacity for reproducing itself just the same as it would if retained upon its parent root. The great vitality possessed by some varieties, their strong character, &c., prevent them, as it were, from receiving impregnation while in flower from any less vigorous sort, and hence, as a strong variety is oftener than otherwise surrounded by those of less vitality, it mainly fertilizes itself from its own blossoms and thus reproduces its leading qualities.

is to collect the seeds of the finest table fruits—those sorts whose merits are everywhere acknowledged to be the highest. In proceeding thus, we are all pretty well aware that the chances are generally a hundred to one against our obtaining any new variety of great excellence. Before we offer any advice on rearing seedlings, let us examine briefly the practice and views of two distinguished horticulturists abroad, who have paid more attention to this subject than any other persons whatever; Dr. Van Mons, of Belgium, and Thos. Andrew Knight, Esq., the late President of the Horticultural Society of London.

The Van Mons Theory.

Dr. Van Mons, Professor at Louvain, devoted the greater part of his life to the amelioration of fruits. His nurseries contained, in 1823, no less than two thousand seedlings of merit. His perseverance was indefatigable, and, experimenting mainly on Pears, he succeeded in raising an immense number of new varieties of high excellence. The *Beurré Diel*, *De Louvain*, *Frederic of Wurtemberg*, &c., are a few of the many well-known sorts which are the result of his unwearied labors.

The Van Mons theory may be briefly stated as follows:

All fine fruits are artificial products; the aim of nature, in a wild state, being only a healthy, vigorous state of the tree, and *perfect seeds* for continuing the species. It is the object of culture, therefore, to subdue or enfeeble this excess of vegetation; to lessen the coarseness of the tree; to diminish the size of the seeds; and to refine the quality and increase the size of the flesh or pulp.

There is always a tendency in our varieties of fruit-trees to return by their seeds towards a wild state.

This tendency is most strongly shown in the seeds borne by *old* fruit-trees. And "the older the tree is of any cultivated variety of Pear," says Dr. Van Mons, "the nearer will the seedlings raised from it approach a wild state, without however ever being able to return to that state."

On the other hand, the seeds of a young fruit-tree of a good sort, being itself in the state of amelioration, have the least tendency to retrograde, and are the most likely to produce improved sorts.

Again, there is a certain limit to perfection in fruits. When this point is reached, as in the finest varieties, the next generation will more probably produce bad fruit, than if reared from seeds of an indifferent sort in the course of amelioration. While, in other words, the seeds of the oldest varieties of good fruit mostly yield inferior sorts, seeds taken from recent varieties of bad fruit, and *reproduced uninterruptedly for several generations*, will certainly produce good fruit.*

With these premises, Dr. Van Mons begins by gathering his seeds from a young seedling tree, without paying much regard to its quality, except that it must be in a *state of variation*; that is to say, a garden variety, and not a wild sort. These he sows in a seed-bed or nursery, where he leaves the seedlings until they attain sufficient size to enable him to judge of their character. He then selects those which appear the most promising, plants them a few feet distant in the nursery, and

* Experience of American growers does not bear out the supposition here taken. The *Seckel*, one of the finest and most perfect pears, has perhaps given more valuable seedlings than any other one kind.

awaits their fruit. Not discouraged at finding most of them mediocre in quality, though differing from the parent, he gathers the first seeds of the most promising and sows them again. The next generation comes more rapidly into bearing than the first, and shows a greater number of promising traits. Gathering immediately, and sowing the seeds of this generation, he produces a third, then a fourth, and even a fifth generation, uninterruptedly, from the original sort. Each generation he finds to come more quickly into bearing than the previous ones (the fifth sowing of pears fruiting at three years), and to produce a greater number of valuable varieties; until in the fifth generation the seedlings are nearly all of great excellence.

Dr. Van Mons found the pear to require the longest time to attain perfection, and he carried his process with this fruit through five generations. Apples he found needed but four races, and peaches, cherries, plums, and other stone fruits were brought to perfection in three successive reproductions from the seed.

It will be remembered that it is a leading feature in this theory that, in order to improve the fruit, we must *subdue or enfeeble* the original coarse luxuriance of the tree. Keeping this in mind, Dr. Van Mons always gathers his fruit before fully ripe, and allows them to rot before planting the seeds, in order to refine or render less wild and harsh the next generation. In transplanting the young seedlings into quarters to bear he cuts off the tap root, and he annually shortens the leading and side branches, besides planting them only a few feet apart. All this lessens the vigor of the trees, and produces an impression upon the nature of the seeds which will be produced by their first fruit; and, in order to continue in full force the progressive variation, he allows his seedlings to bear on their own roots.*

Such is Dr. Van Mons' theory and method for obtaining new varieties of fruit. It has never obtained much favor in England, and from the length of time necessary to bring about its results, it is scarcely likely to come into very general use here. At the same time it is not to be denied that in his hands it has proved a very successful mode of obtaining new varieties.

It is also undoubtedly true that it is a mode closely founded on natural laws, and that the great bulk of our fine varieties have originated by chance.

The first colonists here, who brought with them many seeds gathered from the best old varieties of fruits, were surprised to find their seedlings producing only very inferior fruits. These seedlings had returned, by their inherent tendency, almost to a wild state. By rearing from them, however, seedlings of many repeated generations, we have arrived at a great number of the finest apples, pears, peaches, and plums. According to Dr. Van Mons, had this process been continued *uninterruptedly*, from one generation to the next, a much shorter time would have been necessary for the production of first-rate varieties.

To show how the practice of chance sowing works in the other hemis-

* "I have found this art to consist in regenerating in a direct line of descent, and as rapidly as possible, an improving variety, taking care that there be no interval between the generations. To sow, to re-sow, to sow again, to sow perpetually, in short, to do nothing but sow, is the practice to be pursued, and which cannot be departed from; and in short this is the whole secret of the art I have employed."—Van Mons' *Arbres Fruitiers*, l. p. 22, 223.

phere, it is stated by one of the most celebrated of the old writers on fruits, Duhamel of France, that he had been in the habit of planting seeds of the finest table pears for fifty years without ever having produced a good variety. These seeds were from trees of old varieties of fruit.

The American gardener will easily perceive, from what we have stated, a great advantage placed in his hands at the present time for the amelioration of fruits by this system. He will see that, as most of our American varieties of fruit are the result of repeated sowings, more or less constantly repeated, he has before him almost every day a part of the ameliorating process in progress; to which Dr. Van Mons, beginning *de novo*, was obliged to devote his whole life. Nearly all that it is necessary for him to do in attempting to raise a new variety of excellence by this simple mode, is to gather his seeds (before they are fully ripe) from a *seedling* sort of promising quality, though not yet arrived at perfection. The seedling must be quite young—must be on its own root (not grafted); and it must be a healthy tree, in order to secure a healthy generation of seedlings. Our own experience leads us to believe that he will scarcely have to go beyond one or two generations to obtain fine fruit. These remarks apply to most of our table fruits commonly cultivated.

In order to be most successful in raising new varieties by successive reproduction, let us bear in mind that we must avoid—1st, the seeds of old fruit-trees; 2d, those of grafted fruit-trees; and 3d, that we have the best grounds for good results when we gather our seeds from a young seedling tree, which is itself rather a *perfecting* than a *perfect* fruit.

It is not to be denied that, in the face of Dr. Van Mons' theory, in this country new varieties of rare excellence are sometimes obtained at once by planting the seeds of old grafted varieties; thus the Lawrence's Favorite and the Columbia plums were raised from seeds of the Green Gage, one of the oldest European varieties.

Such are the means of originating new fruits by the Belgian mode. Let us now examine another more direct, more interesting, and more scientific process—cross-breeding; a mode almost universally pursued now by skilful cultivators in producing new and finer varieties of plants; and which Mr. Knight, the most distinguished horticulturist of the age, so successfully practised on fruit-trees.

Cross-breeding.

In the blossoms of fruit-trees, and of most other plants, the seed is the offspring of the *stamens* and *pistil*, which may be considered the male and female parents, growing in the same flower. Cross-breeding is, then, nothing more than removing out of the blossom of a fruit-tree the stamens, or male parents, and bringing those of another and different variety of fruit, and dusting the pistil or female parent with them,—a process sufficiently simple, but which has the most marked effect on the seeds produced. It is only within about fifty years that cross-breeding has been practised; but Lord Bacon, whose great mind seems to have had glimpses into every dark corner of human knowledge, finely foreshadowed it. "The compounding or mixture of plants is not found out, which, if it were, is more at command than that of living creatures; wherefore, it were one of the most notable discoveries touching plants to find

it out, for so you may have great varieties of fruits and flowers yet unknown."

In Figure 1 is shown the blossom of the Cherry. The central portion, *a*, connected directly with the young fruit, is the *pistil*. The numerous surrounding threads, *b*, are the *stamens*. The summit of the stamen is called the *anther*, and secretes the powdery substance called *pollen*. The *pistil* has at its base the embryo fruit, and at its summit the *stigma*. The use of the stamens is to fertilize the young seed contained at the base of the pistil; and if we fertilize the pistil of one variety of fruit by the pollen of another we shall obtain a new

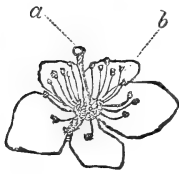


FIG. 1.

variety, partaking intermediately of the qualities of both parents. Thus, among fruits owing their origin directly to cross-breeding, Coe's Golden Drop Plum was raised from the Green Gage, impregnated by the Magnum Bonum or Egg Plum; and the Elton cherry from the Bigarrieu, impregnated by the White Heart.* Mr. Knight was of opinion that the habits of the new variety would always be found to partake most strongly of the constitution and habits of the female parent. Subsequent experience does not fully confirm this, and it would appear that the parent whose character is most *permanent*, impresses its form most forcibly on the offspring.

The process of obtaining cross-breed seeds of fruit-trees is very easily performed. It is only necessary, when the tree blooms which we intend to be the mother of the improved race, to select a blossom or blossoms growing upon it not yet fully expanded. With a pair of scissors we cut out and remove all the anthers. The next day, or as soon as the blossom is quite expanded, we collect with a camel's-hair brush the pollen from a fully blown flower of the variety we intend for the male parent, applying the pollen and leaving it upon the stigma or point of the pistil. If your trees are much exposed to those busy little meddlers, the bees, it is well to cover the blossoms with a loose bag of thin gauze, or they will perhaps get beforehand with you in your experiments in cross-breeding. Watch the blossoms closely as they open, and bear in mind that the two essential points in the operation are: 1st, to extract the anthers carefully, before they have matured sufficiently to fertilize the pistil; and 2d, to apply the pollen when it is in perfection (dry and powdery), and while the stigma is moist. A very little practice will enable the amateur to judge of these points.

There are certain limits to the power of crossing plants. What is strictly called a *cross-bred* plant or fruit is a sub-variety raised between two varieties of the same species. There are, however, certain species, *nearly allied*, which are capable of fertilizing each other. The offspring in this case is called a *hybrid*, or mule, and does not always produce perfect seeds. "This power of hybridizing," says Dr. Lindley, "appears to be much more common in plants than in animals. It is, however, in general only between nearly allied species that this intercourse can take place; those which are widely different in structure and constitution not

* The seedlings sometimes most resemble one parent, sometimes the other; but more frequently share the qualities of both. Mr. Coxe describes an Apple, a cross between a Newtown Pippin and a Russet, the fruit of which resembled externally at one end the Russet and at the other the Pippin, and the flavor at either end corresponded exactly with the character of the exterior.

being capable of any artificial union. Thus the different species of Strawberry, of the gourd or melon family, intermix with the greatest facility, there being a great accordance between them in general structure and constitution. But no one has ever succeeded in compelling the pear to fertilize the apple, nor the gooseberry the current. And as species that are very dissimilar appear to have some natural impediment which prevents their reciprocal fertilization, so does this obstacle, of whatever nature it may be, present an insuperable bar to the intercourse of the different genera. All the stories that are current as to the intermixture of oranges and pomegranates, of roses and black currants, and the like, may therefore be set down to pure invention."

In practice this power of improving varieties by crossing is very largely resorted to by gardeners at the present day. Not only in fruit-trees, but in ornamental trees, shrubs, and plants, and especially in florists' flowers, it has been carried to a great extent. The great number of new and beautiful Roses, Azaleas, Camellias, Fuchsias, Dahlias, and other flowering plants so splendid in color and perfect in form, owe their origin to careful cross-breeding.

In the amelioration of fruits it is by far the most certain and satisfactory process yet discovered. Its results are more speedily obtained, and correspond much more closely to our aim, than those procured by successive reproduction.

In order to obtain a new variety of a certain character, it is only necessary to select two parents of well known habits, and which are both varieties of the same or nearly allied species, and cross them for a new and intermediate variety. Thus, if we have a very early but insipid and worthless sort of pear, and desire to raise from it a variety both early and of fine flavor, we should fertilize some of its pistils with the pollen of the best flavored variety of a little later maturity. Among the seedlings produced we should look for early pears of good quality, and at least for one or two varieties nearly or quite as early as the female parent, and as delicious as the male. If we have a very small but highly flavored pear, and wish for a larger pear with a somewhat similar flavor, we must fertilize the first with the pollen of a large and handsome sort. If we desire to impart the quality of lateness to a very choice plum, we must look out for a late variety as the mother, and cross it with our best flavored sort. If we desire to impart hardness to a tender fruit, we must undertake a cross between it and a much harder sort; if we seek greater beauty of color or vigor of growth, we must insure these qualities by selecting one parent having such quality strongly marked.

As the seeds produced by cross fertilization are not found to produce precisely the same varieties, though they will nearly all partake of the mixed character of the parents, it follows that we shall be most successful in obtaining precisely all we hope for in the new race in proportion to the number of our cross-bred seedlings; some of which may be inferior, as well as some superior to the parents. It is always well, therefore, to cross several flowers at once on the same plant, when a single blossom does not produce a number of seeds.

We should observe here, that those who devote their time to raising new varieties must bear in mind that it is not always by the first fruits of a seedling that it should be judged. Some of the finest varieties require a considerable age before their best qualities develop themselves, as it is only when the tree has arrived at some degree of maturity that its secre-

tions, either for flower or fruit, are perfectly elaborated. The first fruit of the Black Eagle cherry, a fine cross-bred raised by Mr. Knight, was pronounced worthless when first exhibited to the London Horticultural Society; its quality now proves that the tree was not then of sufficient age to produce its fruit in perfection.

CHAPTER II.

REMARKS ON THE DURATION OF VARIETIES OF FRUIT-TREES.

It was for a long time the popular notion, that when a good variety of fruit was once originated from seed, it might be continued by grafting and budding forever,—or, at least, as some old parchment deeds pithily gave tenure of land—“as long as grass grows and water runs.”

About 1830, however, Thomas Andrew Knight, the distinguished President of the Horticultural Society of London, published an Essay in its Transactions tending entirely to overthrow this opinion, and to establish the doctrine that all varieties are of very limited duration.

The theory advanced by Mr. Knight is as follows: All the constitutional vigor or properties possessed by any variety of fruit are shared at the same time by all the plants that can be made from the buds of that variety, whether by grafting, budding, or other modes of propagating. In similar terms, all the plants or trees of any particular kind of pear or apple being only parts of one original tree, itself of limited duration, it follows, as the parent tree dies, all the others must soon after die also. “No trees, of any variety,” to use his own words, “can be made to produce blossom or fruit till the original tree of that variety has attained the age of puberty; * and, under ordinary modes of propagation, by grafts and buds, all become subject, at no very distant period, to the debilities and diseases of old age.”

It is remarkable that such a theory as this should have been offered by Mr. Knight, to whose careful investigations the science of modern horticulture is so deeply indebted—as, however common it is to see the apparent local decline of certain sorts of fruit, yet it is a familiar fact that many sorts have also been continued a far greater length of time than the life of any one parent tree. Still, the doctrine has found supporters abroad, and at least one hearty advocate in this country.

Mr. Kenrick, in his new American Orchardist, adopts this doctrine, and in speaking of Pears says: “I shall, in the following pages, designate some of these in the class of old varieties, once the finest of all old pears, whose duration we had hoped, but in vain, to perpetuate. For, except in certain sections of the city, and some very few and highly

* This part of the doctrine has of late been most distinctly refuted, and any one may repeat the experiment. Seedling fruit-trees, it is well known, are usually several years before they produce fruit. But if a graft is inserted on a bearing tree, and, after it makes one season's fair growth, the grafted shoot is bent directly down and tied there, with its point to the stock below, it will the next season—the sap being checked—produce flower-buds and begin to bear, long before the parent tree.

avored situations in the country around, they (the old sorts) have become either so uncertain in their bearing—so barren—so unproductive—or so miserably blighted—so mortally diseased—that they are no longer to be trusted; they are no longer what they once were with us, and what many of them are still described to be by most foreign writers.”

Mr. Kenrick accordingly arranges in separate classes the *Old* and *New* Pears; and while he praises the latter, he can hardly find epithets sufficiently severe to bestow on the former poor unfortunates. Of the Doyenné he says: “This most eminent of all Pears has now become an outcast, intolerable even to sight;” of the Brown Beurré, “once the best of all Pears—now become an outcast.” The St. Germain “has long since become an abandoned variety,” &c., &c.

Many persons have, therefore, supposing that these delicious varieties had really and quietly given up the ghost, made no more inquiries after them, and only ordered from the nurseries the new varieties. And this not always, as they have confessed to us, without some lingering feeling of regret at thus abandoning old and tried friends for new-comers—which, it must be added, not unfrequently failed to equal the good qualities of their predecessors.

But, while this doctrine of Knight’s has found ready supporters, we are bound to add that it has also met with sturdy opposition. At the head of the opposite party we may rank the most distinguished vegetable physiologist of the age, Professor De Candolle, of Geneva. Varieties, says De Candolle, will endure and remain permanent so long as man chooses to take care of them, as is evident from the continued existence to this day of sorts, the most ancient of those which have been described in books. By negligence, or through successive bad seasons, they may become diseased, but careful culture will restore them, and retain them, to all appearance, forever.

Our own opinion coincides, in the main, with that of De Candolle. While we admit that, in the common mode of propagation, varieties are constantly liable to decay or become comparatively worthless, we believe that this is owing not to natural limits set upon the duration of a variety; that it does not depend on the longevity of the parent tree; but upon the care with which the sort is propagated, and the nature of the climate or soil where the tree is grown.

It is a well-established fact, that a seedling tree, if allowed to grow on its own root, is always much longer lived, and often more vigorous than the same variety when grafted upon another stock; and experience has also proved that in proportion to the likeness or close relation between the stock and the graft is the long life of the grafted tree. Thus a variety of pear grafted on a healthy pear seedling lasts almost as long as upon its own roots. Upon a thorn stock it does not endure so long. Upon a mountain ash or quince stock still less; until the average life of the pear-tree when grafted on the quince is reduced to one-third of its ordinary duration on the pear stock. This is well known to every practical gardener, and it arises from the want of affinity between the quince stock and the pear graft. The latter is rendered dwarf in its habits, bears very early, and perishes equally soon.

Next to this, the apparent decay of a variety is often caused by grafting upon unhealthy stocks. For although grafts of very vigorous habit have frequently the power of renovating in some measure, or for a time,

the health of the stock, yet the tree, when it arrives at a bearing state, will, sooner or later, suffer from the diseased or feeble nature of the stock.

Carelessness in selecting scions for engrafting is another fertile source of degeneracy in varieties. Every good cultivator is aware that if grafts are cut from the ends of old bearing branches, exhausted by over-bearing, the same feebleness of habit will, in a great degree, be shared by the young graft. And on the contrary, if the thrifty straight shoots that are thrown out by the upright extremities, or the strong limb-sprouts, are selected for grafting, they ensure vigorous growth, and healthy habit in the graft.

Finally, unfavorable soil and climate are powerful agents in deteriorating varieties of fruit-tree. Certain sorts that have originated in a cold climate are often short-lived and unproductive when taken to warmer ones, and the reverse. This arises from a want of constitutional fitness for a climate different from its natural one.

Most varieties of apples originating in the climate of the Middle States, if their period of maturity be mid-winter, when taken to the extreme northern limits lose their value, because of the season not being long enough for their juices to become fully matured. Again, if they are taken to the Southern States their period of maturity is hastened by a greater amount of continued heat, and the quality impaired.

Varieties, however, that originate at the North, and have their maturity naturally in the warm summer months, are improved by their removal South. But this only proves that it is impossible to pass certain natural limits of fitness for climate, and not that the existence of the variety itself is in any way affected by these local failures.

Any or all of these causes are sufficient to explain the apparent decay of some varieties of fruit, and especially of pears, over which some cultivators, of late, have uttered so many lamentations, scarcely less pathetic than those of Jeremiah.

Having stated the theories on this subject, and given an outline of our explanation, let us glance for a moment at the actual state of the so-called decayed varieties, and see whether they are really either extinct, or on the verge of annihilation.

Mr. Knight's own observation in England led him to consider the English Golden Pippin and the Nonpareil, their two most celebrated varieties of apple, as the strongest examples of varieties just gone to decay, or, in fact, the natural life of which had virtually expired twenty years before. A few years longer he thought it might linger on in the warmer parts of England, as he supposed varieties to fall most speedily into decay in the north, or in a cold climate.

Lindley, however, his contemporary, and second to no one in practical knowledge of the subject, writing of the Golden Pippin,* very frankly states his dissent, as follows: "This apple is considered by some of our modern writers on Pomology to be in a state of decay, its fruit of inferior quality, and its existence near its termination. I cannot for a moment agree with such an opinion, because we have facts annually before our eyes completely at variance with such an assertion. In Covent Garden, and indeed in any other large market in the southern or mid-land counties of England, will be found specimens of fruit as perfect

* *Guide to the Orchard*, by George Lindley.

and as fine as have been figured or described by any writer, either in this or any other country whatever. Instead of the trees being in a state of 'rapid decay,' they may be found of unusually large size, perfectly healthy, and their crops abundant; the fruit perfect in form, beautiful in color, and excellent in quality." And the like remarks are made of the Nonpareil.

Certain French writers, about this time, gladly seized Knight's theory as an explanation of the miserable state into which several fine old sorts of pears had fallen about Paris, owing to bad culture and propagation. They sealed the death-warrant, in like manner, of the Brown Beurré, Doyenné, Chaumontel, and many others, and consigned them to oblivion in terms which Mr. Kenrick has already abundantly quoted.

Notwithstanding this, and that ten or fifteen years have since elapsed, it is worthy of notice that the repudiated apples and pears still hold their place among all the best cultivators in both England and France. And the "extinct varieties" seem yet to bid defiance to theorists and bad cultivators.

But half the ground is not yet covered. How does the theory work in America? is the most natural inquiry. In this country we have soil varying from the poorest sand to the richest alluvial, climate varying from frigid to almost torrid—a range wide enough to include all fruit-trees between the apple and the orange.

We answer that the facts here, judged in the whole, are decidedly against the theory of the extinction of varieties. While here, as abroad, unfavorable soil, climate, or culture have produced their natural results of a feeble and diseased state of certain sorts of fruit, these are only the exceptions to the general vigor and health of the finest old sorts in the country at large.

Recent experiments have proved that it is not sufficient to bring healthy trees of the old varieties from the interior of the seaboard to insure, in the latter localities, fair and excellent crops. But, on the other hand, the complete renovation of blighted trees by the plentiful use of wood-ashes, bone-dust, lime, and blacksmith cinders, along with common manure, shows us distinctly that it is not the *age* of these varieties of fruit which causes their apparent decline, but a want of that food absolutely necessary to the production of healthy fruit.*

But there is another interesting point in this investigation. Do the newly originated sorts really maintain in the unfavorable districts the appearance of perfect health? Are the new pears uniformly healthy where the old ones are always feeble?

Undoubtedly this question must be answered in the negative. Some

* Since the writing of this, in 1845, there have occurred seasons when nearly every variety of fruit perfected, and there have also been seasons when the old as well as new varieties have failed, and that too in almost all soils and in many varied sections of the country. To our knowledge, no continued experiments in the practice of applying special manures as remedial agents have been tried, but, from the fact that old as well as new sorts have frequently failed in our rich western soils and inland climates, we have come to regard the cause of cracking and other diseases of the pear more to proceed from climatic or atmospheric influence than from any special condition or quality of the soil. It is now generally conceded that our seasons are more changeable and the extremes greater than they were half a century back, and to this influence do we attribute in a great measure the deterioration noted in occasional seasons and localities.

of the latest Flemish pears already exhibit symptoms of decay or bad health in these districts. Even Mr. Kenrick, with all his enthusiasm for the new sorts, is obliged to make the following admission respecting the Beurré Diel pear, the most vigorous and hardy here of all: "I regret to add, that near Boston this noble fruit is liable to crack badly." We predict that many of the Flemish pears originated by Van Mons will become feeble, and the fruit liable to crack, in the neighborhood of Boston, in a much less time than did the old varieties.

And this leads us to remark here, that the hardiness of any variety depends greatly upon the circumstances of its origin. When a new variety springs up accidentally from a healthy seed in a semi-natural manner, like the Seckel, the Dix, and other native sorts, it will usually prove the hardiest. It is, as it were, an effort of nature to produce a new individual out of the materials in a progressive state which garden culture has afforded. Cross-bred seedlings—one parent being of a hardy nature, and both healthy; such as Knight's own seedlings, the Monarch and Dunmore pears—are next in hardiness. Lastly, we rank varieties reared by Van Mons' method—that of continually repeated reproductions. This, as Van Mons distinctly states, is an *enfeebling* process—without any compensating element of vigor. Hence it follows, as a matter of course, that seedlings of the fifth or sixth generation, as are some of his varieties, must in their origin be of feeble habit. Van Mons himself was fully aware of this, and therefore resorted to "grafting by copulation,"—in fact, root-grafting,—well knowing that on common stocks these new varieties would, in light soils, soon become feeble and decayed. It is needless for us to add that hence we consider the Belgian mode of producing new varieties greatly inferior to the English one, since it gives us varieties often impaired in health in their very origin.

If any further proof of this is desired, we think it is easily found by comparing the robust vigor and longevity of many native pear-trees to be found in the United States—some of them 80 or 100 years old, and still producing large crops of fruit—with the delicate trees of several new varieties now in our gardens from Europe. These varieties are delicate not only with respect to their constitutional vigor, but they are also more susceptible to injury from the severity of our winter's cold and summer's sun.

There are great advantages, undoubtedly, for soils naturally unfavorable, and for small gardens, in grafting the pear upon quince stocks; yet, as it diminishes the vigor of the tree, it is not impossible that continued propagation from dwarf trees may somewhat lessen the vital powers and the longevity of a given variety.

The decay of varieties of the Apricot, or Peach, much shorter lived trees by nature, we seldom or never hear of. Varieties of both are now in cultivation, and in the most perfect vigor, of 200 years' duration. This, probably, is owing to the more natural treatment these trees receive generally. Varieties of the vine are said never to degenerate, and this is perhaps owing to their having very rarely been propagated by grafting.*

* We do not deny that in any given soil there is a period at which a variety of tree or plant exhibits most vigor, and after having grown there awhile it ceases to have its former luxuriance. The same is true of wheat or potatoes, and accordingly farmers are in the habit of "changing their seed." The nutriment for a given variety is after a time exhausted from the soil, and unless it is again

We are not without remedy for varieties that have partially decayed in a certain district. If the trees have once been productive of excellent fruit, and are still in a sound condition, though enfeebled, a thorough renewal of their powers will again restore them to health. To effect this, the soil about the roots should be replaced by new, enriched by manure or peat-compost, and mixed with the mineral substances named in the preceding page. The bark of the trunk and large branches should be well scraped, and, as well as all the limbs, thoroughly washed with soft soap; the head should be moderately pruned; and finally, the tree should be suffered to bear no fruit for the two following seasons. After this it will generally bear excellent fruit for several years again.

In making plantations of fine old varieties, in districts where the stock has become feeble, something may be gained by procuring grafts or trees from more favorable localities, where the fruit is still as fair as ever, and care should be exercised in selecting only the healthiest grafts or trees. Nurserymen in unfavorable districts should endeavor to propagate only from trees of healthy character; and if those in their own vicinity are diseased, they should spare no pains to bring into their nurseries and propagate only such as they feel confident are healthy and sound. On them, next to the soil, depends very considerably the vigor or debility of the stock of any given variety in the country around them.

In Mr. Knight's original essay on the Decay of Varieties, he clearly stated a circumstance that most strongly proves what we have here endeavored to show, viz.: that the local decline of a variety is mainly owing to neglect, and to grafting on bad stock. We allude to the fact repeatedly verified, that healthy young shoots, taken from the roots of an old variety in apparent decline, produce trees which are vigorous and healthy. "The decay," says he, "of the powers of life in the roots of seedling trees is exceedingly slow comparatively with that in the branches. Scions (or shoots) obtained from the roots of pear-trees two hundred years old afford grafts which grow with great vigor, and which are often covered with thorns like young seedling stocks; whilst other grafts, taken at the same time from the extremities of the branches of such trees, present a totally different character, and a very slow and unhealthy growth. I do not conceive that such shoots possess all the powers of a young seedling, but they certainly possess no inconsiderable portion of such powers."

This is nothing more, in fact, than going back to the roots—the portion of the tree least exhausted—for the renewal of the health of a variety when the branches of the tree have been exhausted by overbearing, &c. It is a simple and easy mode of increasing the vigor of a sort of delicate habit, to take scions from young root-suckers for grafting anew. This can of course only be done with trees that grow on their own roots, or have not been grafted.

supplied the tree must decline. In light soils this speedily happens. In strong clayey or rocky soils, the natural decomposition of which affords a continual store of lime, potash, &c., the necessary supply of inorganic food is maintained, and the variety continues healthy and productive.

CHAPTER III.

PROPAGATION OF VARIETIES — GRAFTING — BUDDING—CUTTINGS, LAYERS, AND SUCKERS.

AFTER having obtained a new and choice kind of fruit, which in our hands is perhaps only a single tree, and which, as we have already shown, seldom produces the same from seed, the next inquiry is how to continue this variety in existence, and how to increase and extend it, so that other gardens and countries may possess it as well as ourselves. This leads us to the subject of the propagation of fruit-trees, or the continuation of varieties by grafting and budding.

Grafting and budding are the means in most common use for propagating fruit-trees. They are, in fact, nothing more than inserting upon one tree the shoot or bud of another, in such a manner that the two may unite and form a new compound. No person having any interest in a garden should be unable to perform these operations, as they are capable of effecting transformations and improvements in all trees and shrubs, no less valuable than they are beautiful and interesting.

Grafting is a very ancient invention, having been well known and practised by the Greeks and Romans. The latter, indeed, describe a great variety of modes, quite as ingenious as any of the fanciful variations now used by gardeners. The French, who are most expert in grafting, practise occasionally more than fifty modes, and within a few years have succeeded perfectly in grafting annual plants, such as the tomato, the dahlia, and the like.

The uses of grafting and budding, as applied to fruit-trees, may be briefly stated as follows:

1. The rapid increase of propagation of valuable sorts of fruit not easily raised by seeds or cuttings, as is the case with nearly all varieties.

2. To renew or alter the heads of trees partially or fully grown, producing in two or three years, by heading-in and grafting, a new head, bearing the finest fruit, on a formerly worthless tree.

3. To render certain foreign and delicate sorts of fruit more hardy by grafting them on robust stocks of the same species native to the country, as the foreign grape on the native; and to produce fine fruit in climates or situations not naturally favorable, by grafting on another species more hardy, as in a cool climate and damp strong soil by working the Peach on the Plum.

4. To render *dwarf* certain kinds of fruit, by grafting them on suitable stocks of slower growth, as in the case of the Pear on the Quince, the Apple on the Paradise stock, &c.

5. By grafting several kinds on the same tree, to be able to have a succession of fruit, from early to late, in a small garden.

6. To hasten the bearing of seedling varieties of fruit, or of such as are a long time in producing fruit, by grafting them on the branches of full-grown or mature bearing trees. Thus a seedling pear, which would not produce fruit on its own root in a dozen years, will generally begin to bear the third or fourth year if grafted on the extremity of the bearing branches of a mature tree.

The proper time for grafting fruit-trees is in the spring, as soon as the sap is in motion, which commences earliest with the Cherry and

Plum, and ends with the Pear and Apple. The precise time of course varies with the season and the climate, but is generally comprised from February to the middle of April. The grape-vine, however, which suffers by bleeding, is not usually grafted until it is in leaf. The most favorable weather for grafting is a mild atmosphere with occasional showers.

The scions are generally selected previously, as it is found, in nearly all kinds of grafting by scions, that success is more complete when the stock upon which they are placed is a little more advanced—the sap in a more active state than in the scion. To secure this, we usually cut the scions very early in the spring, during the winter, or even in the autumn, burying their lower ends in the ground in a shaded place, or keeping them in fine soil in the cellar till wanted for use. In cutting scions we choose straight thrifty shoots of the last year's growth, which may remain entire until we commence grafting, when they may be cut into scions of three or four buds each. In selecting scions from old trees it is always advisable to choose the most vigorous of the last year's shoots growing near the centre or top of the tree. Scions from sickly and unhealthy branches should be rejected, as they are apt to carry with them this feeble and sickly state. Scions taken from the lower bearing branches will produce fruit soonest, but they will not afford trees of so handsome a shape or so vigorous a growth as those taken from the thrifty upright shoots near the centre or top of the tree. Nurserymen generally take their scions from young grafted trees in the nursery-rows, these being usually in better condition than those taken from old trees, not always in a healthy state.

The stock for grafting upon is generally a tree which has been standing, at least for a year previously, on the spot where it is grafted, as success is much less certain on newly moved trees.

In the case, however, of very small trees or stocks, which are grafted below the surface of the ground, as is frequently the practice with the Apple in American nurseries, the stocks are grafted in the house in winter, or early spring, put away carefully in a damp cellar, and planted out in the spring; but this method is only successful when the root is small, and when the top of the stock is taken off, and the whole root is devoted to supplying the graft with nourishment.

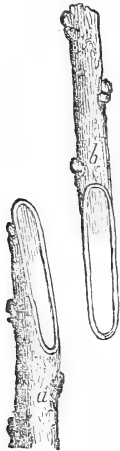
The theory of grafting is based on the power of union between the young tissues or organizable matter of growing wood. When the parts are placed nicely in contact, the ascending sap of the stock passes into and sustains life in the scion; the buds of the latter, excited by this supply of sap and the warmth of the season, begin to elaborate and send down woody matter, which, passing through the newly granulated substance of the parts in contact, unites the graft firmly with the stock. "If," says De Candolle, "the descending sap has only an incomplete analogy with the wants of the stock, the latter does not thrive, though the organic union may have taken place; and if the analogy between the albumen of stock and scion is wanting, the organic union does not operate, the scion cannot absorb the sap of the stock, and the graft fails."

Grafting therefore is confined within certain limits. A scion from one tree will not, from the want of affinity, succeed on every other tree, but only upon those to which it is allied. We are, in short, only successful in budding or grafting where there is a close relationship and similarity of structure between the stock and the scion. This is the case with *varieties* of the same species which take most freely, as the different

sorts of Apple; next with the different *species* of a genus, as the Apple and the Pear, which grow, but in which the union is less complete and permanent; and lastly with the *genera* of the same natural family, as the Cherry on the Plum, which die after a season or two. The ancients boasted of Vines and Apples grafted on Poplars and Elms; but repeated experiments, by the most skilful cultivators of modern times, have clearly proved that although we may, once in a thousand trials, succeed in effecting these ill-assorted unions, yet the graft invariably dies after a few months' growth.*

The range in grafting or budding, for fruit-trees in ordinary culture, is as the following: Apples, on apple or crab seedlings for orchards (standards), or on Paradise apple stocks, for dwarfs; Pears, on pear seedlings for common culture, or Quince stocks for dwarfs, and sometimes on the thorn for clayey soils; Peaches, on their own seedlings for standards or for orchards; on Almonds, for hot and dry climates; on Plums in cold or moist soils, or to secure them against the worm; Apricots, on Plum stocks, to render them hardy and productive, or on their own seedlings to render them long-lived. Nectarines are usually worked on the Peach or Plum; and Cherries on mazard seedlings, or on the perfumed Cherry, and on the morello for forming half dwarfs.

The manual operation of grafting is performed in a very easy and complete manner when the size of the stock, or branch to be grafted, corresponds precisely with that of the scion. In this case, which is called *splice-grafting*, it is only necessary with a smooth sloping cut, upwards on the stock *a*, and downwards on the scion *b*, Fig 2, to make the two fit precisely, so that the inner bark of one corresponds exactly with that of the other, to bind them firmly together with a strand of matting, and to cover the wound entirely with grafting clay or wax, and the whole is finished. In this, which is one of the neatest modes, the whole forms a complete union nearly at once, leaving scarcely any wounded part to heal over. But, as it is only rarely that the stock is of so small a size as to fit thus perfectly to the scion, the operation must be varied somewhat, and requires more skill. The method in most common use to cover all difficulties is called *tongue grafting*.



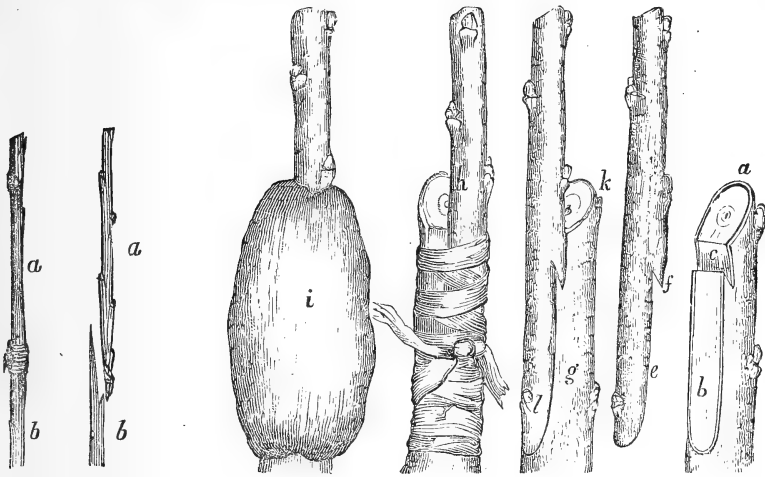
Splice-Grafting.

We may remark here that grafting the shoots of Peaches, Nectarines, and Apricots, owing to their large pith, is more difficult than that of other fruit-trees. A variation of splice-grafting, Fig. 3, has been invented to obviate this. This consists in selecting the scion *a*, so as to leave at its lower end about a fourth of an inch of two years old wood, which is much firmer. The bottom of

* The classical horticulturist will not fail to recall to mind Pliny's account of the tree in the garden of Lucullus, grafted in such a manner as to bear Olives, Almonds, Apples, Pears, Plums, Figs, and Grapes. There is little doubt, however, that this was some ingenious deception, as to this day the Italian gardeners pretend to sell Jasmynes, Honeysuckles, &c., growing together and grafted on Oranges and Pomegranates. This is ingeniously managed, for a short-lived effect, by introducing the stems of these smaller plants through a hole bored up the centre of the stock of the trees—their roots being in the same soil, and their stems, which after a little growth fill up these holes, appearing as if really grafted.

the slope on the stock is cut with a dovetail notch, *b*, into which the scion is fitted.

Tongue-grafting (or whip-grafting), Fig. 4, resembles very nearly



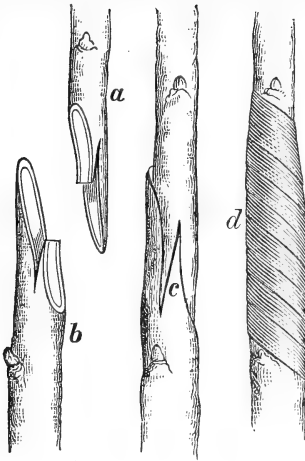
Splice-Grafting the Peach.

Tongue-Grafting, progressive stages.

splice-grafting, except, instead of the simple splice, a tongue is made to hold the two together more firmly. In order to understand this method, let us explain it a little in detail.

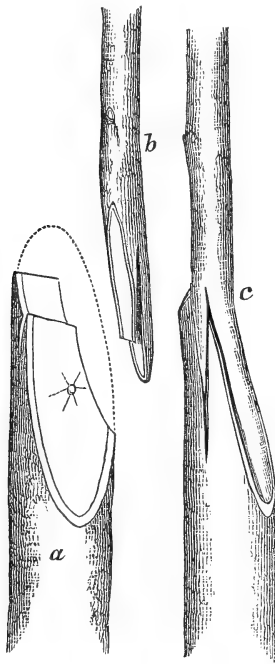
Having chosen your stock of the proper size, cut it off at the point where, *a*, it appears best to fix the graft. If the stock is quite small, it may be within three or four inches of the ground. Then, with a *very sharp knife*, make a smooth cut upwards, *b*, about two inches in length. Next make a slit from the top of this cut about one-fourth of the way downwards, *c*, taking out a thin tongue of wood. Cut the scion four or five inches long, or so as to have three buds; then shape the lower end with a single smooth sloping cut, *e*, about the same length as that on the stock, and make the tongue upward, *f*, to fit in the downward slit of the stock. Now apply the scion accurately to the stock, making the *inner bark of the scion fit exactly the inner bark of the stock, at least on one side, g*. Without changing their position, tie them together carefully with a piece of bass matting or tape, *h*. And finally cover the wound with well-prepared grafting clay or wax, *i*. This ball of clay should more than cover the union, by an inch above and below, and should be about an inch thick. If grafting-wax is used, the covering need not be above half an inch thick.

American Whip Tongue-Grafting—the mode generally practised by American nurserymen—is similar to the foregoing method, but much more rapid in its execution. The scion and stock are first cut, as represented in Fig. 2, for splice-grafting, and then the knife is passed upward in the scion, *a*, Fig. 5, and downward in the stock, *b*, forming a sliced tongue in appearance, and when joined together, *c*, serves to hold the scion in place. The tying for out-door grafting is then done by a narrow strip of cloth, say half an inch to an inch wide, one side of which is saturated or coated with grafting-wax, and as each turn round the



American Whip Tongue-Grafting in its different stages.

(a). Scion cut for insertion. (b). Stock prepared to receive the scion. (c). Stock and scion united. (d). The same tied up.



Whip-Grafting large stock.

(a). Stock prepared to receive the scion. (b). Scion cut for insertion. (c). Stock and scion united.

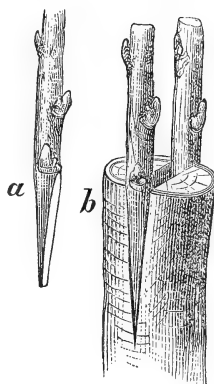
graft and stock is made, the adhesive power of the wax holds the strip firmly and renders the work complete (d).

Whip-grafting large stocks is frequently practised, and is a very successful manner of operating upon quite large trees in the nursery row. The sloping cut upon the stock, and the forming of the graft, is the same as in the ordinary American whip tongue-grafting, except that one side of the stock, opposite that on which the graft is placed, should be cut away upon the same slope as the grafted side, as indicated by the dotted lines in Fig. 6. As soon as the graft has taken, and commenced expanding its leaves and sending out shoots, it will be necessary to rub or cut off all shoots between the ball and the ground, if it is a small stock, or all those which would rob it of a principal share of nourishment, if upon a large tree. If the scion or stock is very weak, it is usual to leave one or two other buds for a time, to assist in drawing up the sap. When the graft has made a growth of two or three inches the ball of clay may be removed, and if the graft is securely united, the bandage may be loosened and re-tied, or it may be cut partially away at the back of the graft, for the purpose of permitting the expansion of growth, that otherwise would soon be checked, and cause the graft to break off. In the use of the wax-cloth strips, passing the knife at the back and cutting the tie is all that is requisite. Early in August the angle left at the top of the stock should be cut off smoothly, in order to allow the bark of the stock and the scion to heal neatly over the whole wound.

Though it is little attended to in common practice, the amateur will be glad to know that the success of a graft is always greatly insured by choosing the parts so that a bud is left near the top of the stock, *k*, Fig. 4, and another near the bottom of the scion, *l*. These buds attract the rising sap to the portions where they are placed, form woody matter, and greatly facilitate the union of the parts near them; the upper part of

the stock and the lower part of the scion being the portions soonest liable to perish from a want of nourishment.*

Cleft-grafting is a very easy though rather clumsy mode, and is in more common use than any other in the United States. It is chiefly practised on large stocks, or trees the branches of which have been headed back, and are too large for tongue-grafting. The head of the stock is first cut over horizontally with the saw and smoothed with a knife. A cleft about two inches deep is then made in the stock with a hammer and splitting-knife. The scion is now prepared by sloping its lower end in the form of a wedge about an inch and a half long, leaving it a little thicker on the outer edge. Opening the cleft with the splitting-knife, or a small chisel for that purpose, push the scion carefully down to its place, fitting its inner bark on one side to that of one side of the stock. When the stock is large, it is usual to insert two scions, Fig. 7. On withdrawing the chisel, the cleft closes firmly on the scions, when the graft is tied and clayed in the usual manner.



Cleft-Grafting.

(a). Scion ready for insertion. (b). Stock with two scions inserted.

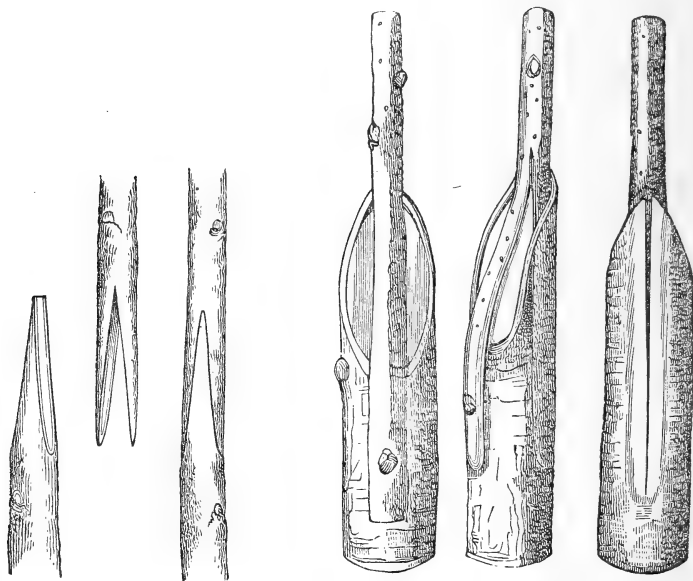
Apple-stocks, in many American nurseries, are grafted in great quantities in this mode—the stocks being previously taken out of the ground, headed down very near the root, cleft-grafted with a single scion, sloping off with an oblique cut the side of the stock opposite that where the graft is placed, and then planted at once in the rows, so as to allow only a single bud of the scion to appear above ground. It is not usual with many either to tie or clay the grafts in this case, as the wound is placed below the surface; but when this plan is adopted, the grafts must be set and the trees planted at once, drawing the well-pulverized soil with great care around the graft. Another way of grafting apple-stocks, common in western nurseries, consists in tongue-grafting on seedling stocks of very small size, cut back almost to the root.

Large quantities of trees are also propagated by using pieces of roots each three to five inches long, thus forming from the root of one stock sufficient root for two or more grafts. This practice, although quite common, is of very doubtful value, and by some prominent horticulturists considered as tending to debilitate and reduce vitality—the seat of vital life in fact resting in the natural crown of the seedling, and that once destroyed cannot be renewed. It is therefore apparent that but one healthy permanent tree can ever be grown from a seedling stock. This is performed in winter, by the fireside, the grafts carefully tied, and the

* In grafting large quantities of young trees when stocks are scarce, it is not an unusual practice in some nurseries to tongue or whip-graft upon small *pieces of roots* of the proper sort of tree, planting the same in the earth as soon as grafted. Indeed Dr. Van Mons considers this the most complete of all modes, with regard to the proper condition of the grafted sort: 1st, because the smallest quantity of the stock is used; and 2d, because the lower part of the scion being thus placed in the ground, after a time it throws out fibres from that portion, and so at last is actually growing on its own roots.

roots placed in the cellar, in sand, till spring, when they are planted, the top of the graft just above ground.

Grafting the Vine is attended with success in the cleft or whip manner, if treated as follows:—Cut your scions during the winter or early spring, keeping them partially buried in a cool damp cellar till wanted. As soon as the first leaves of the old vine or stock have grown to about two inches in diameter, and all danger of bleeding is past, cut it off smoothly below the surface of the ground, and split the stock and insert one or two scions in the usual manner, binding the cleft well together if it does not close firmly. Draw the soil carefully over the whole, leaving one bud of the scion at the surface. If the root of the stock is a strong native grape, the graft will frequently grow ten or fifteen feet during the first season, and yield a fair crop the second year.



Saddle-Grafting.

Saddle-Grafting Large Stocks.

Saddle-grafting, Fig. 8, consists in cutting the top of the stock in the form of a wedge, splitting the scion and thinning away each half to a tongue shape, placing it astride the stock, and fitting the two, at least on one side, as in tongue-grafting. This mode offers the largest surface for the junction of the scion and stock, and the union is very perfect. Mr. Knight, who practised it chiefly upon Cherry-trees, states that he has rarely ever seen a graft fail, even when the wood has been so succulent and immature as to preclude every hope of success by any other mode.

A variety of this mode, for stocks larger than the scions, is practised with much success in England after the usual season is past, and when the bark of the stock separates readily. "The scion, which must be smaller than the stock, is split up between two or three

inches from its lower end, so as to have one side stronger than the other. This strong side is then properly prepared and introduced between the bark and the wood, while the thinner division is fitted to the opposite side of the stock." The graft, thus placed, receives a large supply of the sustaining fluid from the stock, and the union is rapid; while the wound on the stock is speedily covered by a new layer of bark from that part of the scion which stands astride it.

Side-grafting is a mode described by Elliott, and considered very successful for grafting the Magnolia, and other trees difficult of propagation; and also for the greater safety of grafts received or delayed late in spring. It is performed by cutting a notch or slit of about one inch long in the side of the stock, paring the outer portion, splitting the lower end of the graft and paring the inner portion, then inserting it, so as to form a union of the bark and wood, leaving meanwhile the top of the stock to carry on the circulation of the sap until the graft becomes united, when the stock is to be cut away.

Grafting-clay is prepared by mixing one-third cow-dung, free from straw, and two-thirds clay, or clayey loam, with a little hair, like that used in plaster, to prevent its cracking. Beat and temper it for two or three days, until it is thoroughly incorporated. When used, it should be of such a consistency as to be easily put on and shaped with the hands.

Grafting-wax. The common grafting-wax of the French gardeners is of two kinds. The first is melted and laid on with a brush in a fluid state, and is made of half a pound of pitch, half a pound of beeswax, and a pound of cow-dung, boiled together. The second, which is spread while warm on strips of coarse cotton or strong paper, and wrapped directly about the graft, answering at once to tie and to protect it, is composed of equal parts of beeswax, turpentine, and resin. The grafting-wax most commonly used here is made of tallow, beeswax, and resin, in equal parts, or, as many prefer, with a little more tallow to render it pliable. It may be applied directly around the graft, or it may be spread with a brush, when warm, upon cloth or paper, and afterward the cloth or paper cut into suitable strips for wrapping, as indicated in the directions for grafting.

Grafting-wax is a much neater and more perfect protection than grafting-clay.

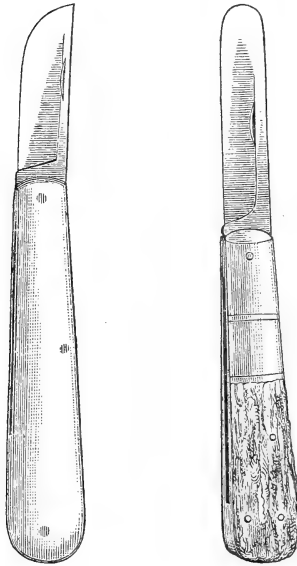
Budding.

Budding (inoculating, of the old authors) differs from common grafting not the least in its nature or effects. Every bud is a distinct individual, capable of becoming a tree under favorable circumstances. In grafting we use a branch composed of several buds, with a considerable quantity of bark and wood; while in budding we employ but a single bud, with a very small quantity of the adjoining bark and wood.

The advantages of budding fruit-trees, compared with grafting, are so considerable that in this country it is ten times as much practised. These are, first, the great rapidity with which it is performed; a skilful budder, with a clever boy following him to *tie* the buds, being able to work from a thousand to twelve hundred young nursery stocks in a day. 2d. The more convenient season at which it is performed in all countries where a short spring crowds garden labors within a small space. 3d. Being able to perform the operation without injuring the stock in

case of failure, which is always more or less the case in stocks headed down for grafting. 4th. The opportunity which it affords, when performed in good season, of repeating the trial on the same stock. To these we may add that budding is universally preferred here for all stone-fruits, such as Peaches, Apricots, and the like, as these require extra skill in grafting, but are budded with great ease.

The proper season for budding fruit-trees in this country is from the first of July to the middle of September; the different trees coming into season as follows:—Plums, Cherries, Apricots on Plums, Apricots, Pears, Apples, Quinces, Nectarines, and Peaches. Trees of considerable size will require budding earlier than young seedling stocks. But the operation is always, and only, performed when the bark of the stock parts or separates freely from the wood, and when the buds of the current year's growth are somewhat plump, and the young wood is growing firm. Young stocks in the nursery, if thrifty, are usually planted out in the rows in the spring, and budded the same summer or autumn.



Budding-Knives.



A Stick of Buds.

Before commencing you should provide yourself with a budding-knife, Fig. 10 (about four and a half inches long), having a round blade at one end, and an ivory handle, terminating in a thin rounded edge called the *haft*, at the other.

Fig. 11 represents another style or form of budding-knife, by many considered preferable. The cutting portion extends about one-third around the end of the blade, and about two-thirds of its length, leaving the lower part dull. The rounded end of the blade to this knife obviates the necessity of reversing it for opening the bark when setting a bud, and thus facilitates work.

In choosing your buds, select thrifty shoots that have nearly done growing, and prepare what is called a *stick of buds*, Fig. 12, by cutting off a few of the imperfect buds at the lower, and such as may be yet too soft at the upper ends, leaving only smooth, well-developed single buds; double buds being fruit-buds.

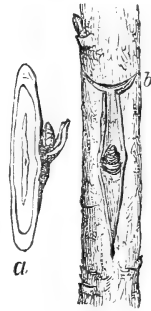
Great care is essential in selecting buds, as often even on sticks cut from young trees, and especially from bearing trees, many of the single buds will be found developed into fruit-buds, and are therefore unfitted for use. The form of a wood-bud is always long rather than round, and, in the case of peaches, there are sometimes triple buds, the centre one of which is always a wood-bud.

Cut off the leaves, allowing about half an inch of the

foot-stalks to remain for conveniently inserting the buds. Some strands of bass matting, about twelve or fourteen inches long, and from a quarter to half an inch in width, moistened in water to render them soft and pliable (or in the absence of these some soft woollen yarn), must also be at hand for tying the buds.

Shield or T-budding is the most approved mode in all countries. A new variety of this method, now generally practised in this country, we shall describe first, as being the simplest and the best mode for fruit-trees.

American shield-budding. Having your stick of buds ready, choose a smooth portion of the stock. When the latter is small, let it be near the ground, and, if equally convenient, select also the north side of the stock, as less exposed to the sun. Make an upright incision in the bark from an inch to an inch and a half long, and at the top of this make a cross cut, so that the whole shall form a T. From the stick of buds, your knife being very sharp, cut a thin, smooth slice of wood and bark containing a bud, Fig. 13, *a*. With the rounded end of your budding-knife, now raise the bark on each side of the incision just wide enough to admit easily the prepared bud. Taking hold of the footstalk of the leaf, insert the bud under the bark, pushing it gently down to the bottom of the incision. If the upper portion of the bud projects above the horizontal part of the T, cut it smoothly off, so that it may completely fit *b*. A bandage of the soft matting is now tied over the whole wound, Fig. 14, commencing at the bottom, and tying most firmly above, leaving the bud and the footstalk of the leaf only exposed to the light air.

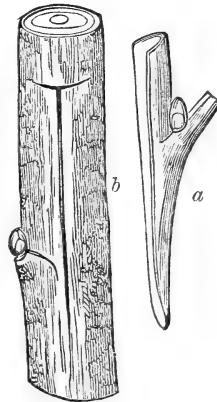


American shield-budding.

Common shield-budding, Fig. 15, practised in all gardens in Europe, differs from the foregoing only in one respect—the removal of the slice of wood contained in the bud. This is taken out with the point of the knife, holding the bud or shield by the leaf-stalk with one hand, inserting the knife under the wood at the lower extremity, and then raising and drawing out the wood by bending it upwards and downwards, with a slight jerk, until it is loosened from the bark; always taking care that a small portion of the wood remains behind to fill up the hollow at the base or heart of the bud. The bud thus prepared is inserted precisely as before described.



The American variety of shield-budding is found greatly preferable to the European mode, at least for this climate.



Many sorts of fruit-trees, especially Plums and Cherries, nearly mature their growth, and require to be budded in the hottest part of our summer. In the old method, the bud having only a shield of bark with but a particle of wood in the heart of the bud, is much more liable to

be destroyed by heat, or dryness, than when the slice of wood is left behind in the American way. Taking out this wood is always an operation requiring some dexterity and practice, as few buds grow when their eye or heart-wood is damaged. The American method therefore requires less skill, can be done earlier in the season with younger wood, is performed in much less time, and is uniformly more successful. It has been very fairly tested upon hundreds of thousands of fruit-trees in our gardens for the last twenty years, and although practised English budders coming here at first are greatly prejudiced against it, as being in direct opposition to one of the most essential features in the old mode, yet a fair trial has never failed to convince them of the superiority of the new.

After-treatment. In two weeks after the operation you will be able to see whether the bud has taken, by its plumpness and freshness. If it has failed, you may, if the bark still parts readily, make another trial; a clever budder will not lose more than 6 or 8 per cent. If it has succeeded, after a fortnight more has elapsed the bandage must be loosened, or, if the stock has swelled much, it should be removed altogether, by cutting on the back side opposite the bud. When budding has been performed very late, we have occasionally found it an advantage to leave the bandage on during the winter.

As soon as the buds commence swelling in the ensuing spring, head down the stock, with a sloping back cut, within two or three inches of the bud. The bud will then start vigorously, and all "robbers," as the shoots of the stock near to and below the bud are termed, must be taken off from time to time. To secure the upright growth of the bud, and to prevent its being broken by the winds, it is tied, when a few inches long, to that portion of the stock left for the purpose, Fig. 16, *a*. During the month of August, if the shoot is strong, this support may be removed, and the superfluous portion of the stock smoothly cut away in the dotted line *b*, when it will be rapidly covered with young bark.



Treatment of the growing bud.

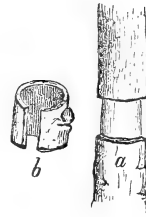
We have found a great advantage, when budding trees which do not take readily, in adopting Mr. Knight's excellent mode of tying with two distinct bandages, one covering that part below the bud, and the other the portion above it. In this case the lower bandage is removed as soon as the bud has taken, and the upper left for two or three weeks longer. This, by arresting the upward sap, completes the union of the upper portion of bud (which in plums frequently dies while the lower part is united) and secures success.

Reversed shield-budding, which is nothing more than making the cross cut at the bottom instead of the top of the upright incision in the bark, and inserting the bud from below, is a good deal practised in the south of Europe, but we have not found that it possesses any superior merit for fruit-trees.

An ingenious application of budding, worthy the attention of amateur cultivators, consists in using a blossom-bud instead of a wood-bud; when, if the operation is carefully done, blossoms and fruit will be produced at once. This is most successful with the Pear, though we have often succeeded also with the Peach. Blossom-buds are readily distin-

guished, as soon as well formed, by their roundness, and in some trees by their growing in pairs; while wood-buds grow singly, and are more or less pointed. We have seen a curious fruit-grower borrow in this way, in September, from a neighbor ten miles distant, a single blossom-bud of a rare new pear, and produce from it a fair and beautiful fruit the next summer. The bud, in such cases, should be inserted on a favorable limb of a bearing tree.

Annular budding, Fig. 17, we have found a valuable mode for trees with hard wood and thick bark, or those which, like the walnut, have buds so large as to render it difficult to bud them in the common way. A ring of bark, when the sap is flowing freely, is taken from the stock, *a*, and a ring of corresponding size containing a bud, *b*, from the scion. If the latter should be too large a piece must be taken from it to make it fit; or should all the scions be too small, the ring upon the stock may extend only three-fourths the way round, to suit the ring of the bud.



Annular Budding.

An application of this mode, of great value, occasionally occurs in this country. In snowy winters, fruit-trees in orchards are sometimes girdled at the ground by field-mice, and a growth of twenty years is thus destroyed in a single day, should the girdle extend quite round the tree. To save such a tree it is only necessary, as soon as the sap rises vigorously in the spring, to apply a new ring of bark, in the annular mode, taken from a branch of proper size; tying it firmly, and drawing up the earth so as to cover the wound completely. When the tree is too large to apply an entire ring, separate pieces, carefully fitted, will answer; it is well to reduce the top somewhat by pruning, that it may not make too large a demand on the root for a supply of food.

Another practice, and perhaps one more easily applicable, is the taking several large grafts or strong twigs of last year's growth, and after splitting them in halves, pare each end down to a thin edge, and insert them underneath the bark of the tree just above and below the wound. Tie around firmly with strong bass matting, and then draw up the earth to cover the whole and keep out the air.

Budding may be done in the spring as well as at the latter end of summer, and is frequently so performed upon roses and other ornamental shrubs by French gardeners, but is only in occasional use upon fruit-trees.

Influence of the stock and graft.

The well-known fact that we may have a hundred different varieties of pear on the same tree, each of which produces its fruit of the proper form, color, and quality; and that we may have, at least for a time, several distinct though nearly related species upon one stock, as the Peach, Apricot, Nectarine, and Plum, prove very conclusively the power of every grafted or budded branch, however small, in preserving its identity. To explain this, it is only necessary to recall to mind that the ascending sap, which is furnished by the root or stock, is nearly a simple fluid; that the leaves digest and modify this sap, forming a proper juice, which re-descends in the inner bark; and that thus every bud and leaf upon a

branch maintains its individuality by preparing its own proper nourishment, or organizing matter, out of that general aliment the sap. Indeed, according to De Candolle,* each separate cellule of the inner bark has this power of preparing its food according to its nature; in proof of which a striking experiment has been tried by grafting rings of bark, of different allied species, one above another, on the same tree, without allowing any buds to grow upon them. On cutting down and examining this tree, it was found that under each ring of bark was deposited the proper wood of its species, thus clearly proving the power of the bark in preserving its identity, even without leaves.

On the other hand, though the stock increases in size by the woody matter received in the descending sap from the graft, yet as this descends through the inner bark of the stock, it is elaborated by, and receives its character from the latter; so that, after a tree has been grafted fifty years, a shoot which springs out from its trunk below the place of union will always be found to bear the original wild fruit, and not to have been in the least affected by the graft.

But whilst grafting never effects any alteration in the identity of the variety or species of fruit, still it is not to be denied that the stock does exert certain influences over the habits of the graft. The most important of these are dwarfing, inducing fruitfulness, and adapting the graft to the soil or climate.

Thus every one knows that the slower habit of growth in the Quince stock is shared by the Pear grafted upon it, which becomes a dwarf; as does also the Apple when worked on the Paradise stock, and, in some degree, the Peach on the Plum. The want of entire similarity of structure between the stock and graft confines the growth of the latter, and changes it, in the case of the Pear, from a lofty tree to a shrub of eight or ten feet in height. The effect of this difference of structure is very apparent, when the Peach is grafted on the Plum, in the greater size of the trunk above, as compared with that below the graft; a fact which seems to arise from the obstruction which the descending sap of the graft finds in its course through the bark of the stock.

To account for the earlier and greater fruitfulness caused by grafting on a stock of slower growth, Mr. Knight, in one of his able papers, offers the following excellent remarks:—

“The disposition in young trees to produce and nourish blossom buds and fruit is increased by this apparent obstruction of the descending sap; and the fruit, I think, ripens somewhat earlier than upon other young trees of the same age which grow upon stocks of their own species. But the growth and vigor of the tree, and its power to nourish a succession of heavy crops, are diminished, apparently, by the stagnation in the branches and stock of a portion of that sap which, in a tree growing on its own stem or upon a stock of its own species, would descend to nourish and promote the extension of its own roots. The practice, therefore, of grafting the Pear on the Quince, and the Peach on the Plum, when extensive growth and durability are wanted, is wrong; but it is eligible wherever it is wished to diminish the vigor and growth of the tree, and its durability is not so important.”

In adapting the graft to the soil the stock has a marked influence. Thus in dry chalky soils, where the Peach on its own roots will scarcely

* *Physiologie Végétale.*

grow, it is found to thrive admirably budded on the Almond. We have already mentioned that in clay soils too heavy and moist for the Peach, it succeeds very well if worked on the Plum. M. Floss, a Prussian gardener, succeeded in growing fine pears in very sandy soils, where it was nearly impossible to raise them before, by grafting them on the Mountain Ash, a nearly related tree, which thrives on the driest and lightest soil.

A variety of fruit which is found rather tender for a certain climate, or a particular neighborhood, is frequently acclimatized by grafting it on a native stock of very hardy habits. Thus near the sea-coast, where the finer plums thrive badly, we have seen them greatly improved by being worked on the beech-plum, a native stock adapted to the spot; and the foreign grape is more luxuriant when grafted on our native stocks.

A slight effect is sometimes produced by the stock on the quality of the fruit. A few sorts of pear are superior in flavor, but many are also inferior, when grafted on the Quince, while they are more gritty on the thorn. The Green Gage, a Plum of great delicacy of flavor, varies considerably upon different stocks; and Apples raised on the crab, and pears on the Mountain Ash, are said to keep longer than when grown on their own roots.

In addition to the foregoing, a diseased stock should always be avoided, as it will communicate disease slowly to the graft, unless the latter is a variety of sufficient vigor to renew the health of the stock, which is but seldom the case.

The cultivator will gather from these remarks that, in a favorable climate and soil, if we desire the greatest growth, duration, and development in any fruit (and this applies to orchards generally), we should choose a stock of a closely similar nature to the graft—an apple seedling for an apple; a pear seedling for a pear. If we desire dwarf trees that come into bearing very young, and take little space in a garden, we employ for a stock an allied species of slower growth. If our soil or climate is unfavorable, we use a stock which is adapted to the soil, or which will, by its hardier roots, endure the cold.

The influence of the graft on the stock seems scarcely to extend beyond the power of communicating disease. A graft taken from a tree enfeebled by disease will recover with difficulty, even if grafted on healthy stocks for a dozen times in repeated succession. And when the disease is an inherent or hereditary one, it will certainly communicate it to the stock. We have seen the *yellow*s, from a diseased peach-tree, propagated through hundreds of individuals by budding, and the stock and graft both perish together from its effects. Hence the importance, to nurserymen especially, of securing healthy grafts, and working only upon healthy stocks.

Propagation by Cuttings.

Propagating by cuttings, as applied to fruit-trees, consists in causing a shoot of the previous season's wood to grow, by detaching it from the parent tree at a suitable season, and planting it in the ground under favorable circumstances.

In this case, instead of uniting itself by woody matter to another tree, as does the scion in grafting, the descending woody matter becomes roots at the lower end, and the cutting of which is then a new and entire

plant. Every bud being a distinct individual, capable of forming a new plant, has indeed theoretically the power, if separated from the parent stem, of throwing out roots and maintaining a separate existence; and some plants, as the grape-vine, are frequently propagated by single buds planted in the soil. But in practice it is found necessary, with almost all trees and plants, to retain a considerable portion of the *stem* with the bud, to supply it with food until it has formed roots to draw nourishment from the soil.

All fruit-trees may be propagated by cuttings, with proper care and attention, but only a few grow with sufficient facility in this way to render their propagation by cuttings a common mode. These are the Gooseberry, the Currant, the Vine, the Quince, the Fig, and the Mulberry.

Cuttings of the Currant, Gooseberry, and the hardy sorts of Vine will root readily, in a soil not too dry, in the open garden. Currants and Gooseberries are generally taken off in the fall or winter, prepared for planting, and two-thirds of their lower ends buried in the ground till the commencement of spring, when they are planted out, either where they are to remain or in nursery rows. They will succeed nearly as well if taken off in the spring, but, owing to the period at which they commence growing, this must be attended to *very early*, if deferred till that season.

A successful practice is to prepare the cuttings of Gooseberries and Currants early in the autumn, and to plant them at once in the position where they are to grow the succeeding summer. In planting, set the cuttings into the ground so deeply that but one bud will be left at or near the surface, and then, as soon as the frosts of winter come, cover the whole ground with a light mulch of coarse straw manure, or other litter three or four inches deep.



Gooseberry cutting prepared and planted.

In order to raise plants of the Gooseberry and Currant, with straight clean stems, which shall not throw up suckers, it is only necessary, before planting the cutting, to cut out every eye or bud to be placed below the surface of the ground, Fig. 18. The cutting should be about a foot long, eight inches of which may be inserted in the ground. To insure greater success in raising the finer sorts of Gooseberry, or other shrubs, it is customary to plant the cuttings on the shaded side of a wall or fence, in deep rich loam, rather damp than dry. Cuttings of the vine are generally prepared when trimming the old plants in autumn or winter; they may then be buried with their lower ends in the ground, or kept in earth in the cellar till spring.

Grape cuttings are also made as soon as it will answer to prune the vines in the autumn; and, being planted at once in the ground, covered as above noted for Gooseberries and Currants, are found to grow successfully.

Scarce sorts of grapes, which it is desirable to multiply extensively, are frequently propagated by joints: that is, by buds having about two inches of wood attached to each—every bud in this way forming a plant. When this mode is adopted, it is usual to plant the joints about half an inch deep, in light soil, in a common hot-bed prepared for the purpose, or each joint is planted in a pot by itself. In the first way a great number of plants may be grown in a small space.

Formerly more certain success in propagating the vine by joints was considered gained by halving the joint before planting, as shown in Fig. 19; but, recently, operators have practised the simple manner of preparing the cuttings with about two inches of wood below, and half an inch above the bud, and then planting in frames or propagating-houses, by simply placing the eye or cutting in a perpendicular position, the bud just level with, or nearly covered in a bed of clean, sharp, building or lake sand. A gentle bottom heat is to be maintained steadily, at the same time keeping the air in the house or frame quite cool until the lower end of the cutting or bud has commenced to form roots, when the air of the surface or volume of the house may be increased in warmth to stimulate growth of vine.



A vine joint prepared and planted.

In the method of growing from single eyes, or two-eye cuttings, in out-door practice, it is considered best to prepare the cuttings during winter, and pack them in clean damp—not wet—sand, in a cool dark cellar, where they will callus; and then, just as soon in the spring as the ground can be worked, plant the cuttings out, selecting as far as possible a sharp sandy loam for the location, covering the bed half an inch deep with the soil, and then two to three inches deep with mulch of sawdust, tan bark, &c.

In preparing cuttings of what are termed hard-wood varieties, such as Delaware, Norton's Virginia, &c., it is customary with some propagators to scrape off the outer bark from the lower end of the cutting, and to soften it by soaking in water from ten to twenty hours before placing them in the bed or frame.

The large English black mulberry is propagated by cuttings, as follows: About the last of October take cuttings from the thrifty shoots of a bearing tree, cut out all the buds except two or three at the top, and pare off the bottom of the cutting just below a bud. Lay in the cuttings in a sheltered border, burying them so that only the two buds at the top are exposed, and covering them with some loose straw or litter. In the spring make a small hot-bed with very sandy soil, in which to plant the cuttings on taking them out of the ground, or place each one in a small pot in any hot-bed ready at hand, and in a few weeks they will be found to have made roots freely.

As a general rule, cuttings succeed best when they are taken off just between the young and the previous year's wood; or, in the case of young side shoots, when they are cut off close to the branch preserving the *collar* of the shoot. The lower end should be cut smoothly across just below a bud, the soil should in all cases be pressed firmly about the lower end of the cutting, and it should always be planted before the buds commence swelling, that the wound may in some measure heal before growth and the absorption of fluid commences.

Propagation by Layers and Suckers.

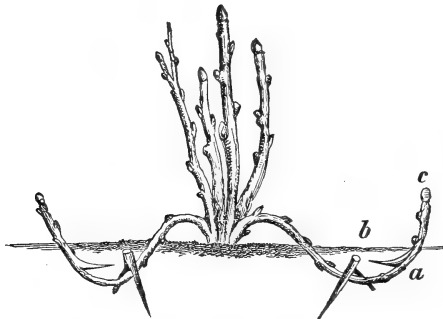
A layer may be considered as a cutting not entirely separated from the plant.

Layering is a mode of propagation resorted to in increasing some fruit-tree stocks, as the Paradise stock, the Muscle Plum, and some

kinds which do not grow so well from the seed. Certain varieties of native grape, as the Norton's Virginia, which do not root readily by cuttings, are also raised in this way, and it may be applied to any sort of fruit-tree which it is desirable to continue on its own root without grafting.

Fruit-trees are generally layered in the spring, and the layers may be taken off well-rooted plants in the autumn. But they may also be layered with success early in July.

In making layers the ground around the mother plant should be made light and mellow by digging. Being provided with some hooked



Layering.

pegs to fasten down the layers, bend down a branch, so that the end may recline upon the ground. Open a little trench three or four inches deep to receive the young wood to be layered; make a cut or tongue, Fig. 20, *a*, half way through the under or upper side of the shoot, pegging down the branch with the hooked peg, *b*, to keep it in its place; press the earth slightly round the tongue, and, in

filling in the soil, raise nearly upright the end of the layer, *c*, which remains above the surface of the ground.

The descending sap, filled with organizable matter, is arrested by this tongue, accumulates there, and the emission of roots speedily takes place. Ringing, wounding, or twisting the limb answers the same purpose less perfectly, and indeed many trees root readily from the mere position of the branches as layers, and the moisture of the soil.

A tree or plant which is kept for raising layers is called a *stool*, and is headed down both to facilitate the rooting of the layers and to afford an abundance of shoots near the earth. Shoots of some of the fruit-tree stocks in the English nurseries are pegged down to the surface before growth commences in the spring, covered about an inch deep with soil, and at the end of autumn afford hundreds of plants; almost every bud making a separate root.

Suckers are shoots sent up from the root, or from portions of the stem below the surface of the soil, which are easily separated from the parent plant.

Suckers of fruit-trees are frequently used as stocks for budding or grafting upon; but they are greatly inferior to seedlings for this purpose, as they are always more liable to produce suckers, and they have not the thrifty, vigorous habit, or the same power of forming as good roots as seedlings. Besides this, should the tree from which they are taken be diseased, they will be likely to carry the malady with them.

Propagating by suckers is an easy and desirable way when we wish to continue a seedling fruit of value on its own root, and some of our common fruits appear to be more healthy and permanent when growing in that way. It is also a mode for increasing the Raspberry; as is also that of runners, which is a kind of sucker above ground, for the Strawberry.

Propagation by Pieces of Roots.

Many varieties of trees, and nearly all varieties of Blackberries, Raspberries, Gooseberries, Currants, &c., can be readily propagated by small pieces of roots. Cut the root into pieces of about two inches in length, any time in autumn or winter, and pack them in moist sand, storing where they will be free from frost. In spring prepare a frame with a gentle bottom heat and plant them, covering about an inch deep, in a sandy loam; as soon as they have well started they may be transplanted out into the open field. Some propagators keep them in the winter packages until the spring is well advanced and the ground becomes somewhat warmed, when they plant at once in the open ground, setting the upper end of the piece of root just level with the ground, and then covering the whole surface with about three inches deep of some light mulching material.

CHAPTER IV.

PRUNING.

1. *Pruning to promote Growth or modify the Form of Fruit-trees.*

In this country almost all fruit-trees are grown as *standards*. In this way they develop their natural forms, attain the largest size, and produce the greatest quantity of fruit with the least possible care. Our bright and powerful sun, reaching every part of the tree, renders the minute systems of pruning and training, which occupy so large a portion of the English works on the subject, of little or no moment to the cultivator here. Pruning is therefore commonly resorted to only for the purpose of increasing the vigor of feeble trees, or to regulate and improve the form of healthy and luxuriant trees.

Pruning has the power of increasing the vigor of a tree in two ways. If we assume that a certain amount of nourishment is supplied by the roots to all the branches and buds of a tree, by cutting off one-half of the branches at the proper season we direct the whole supply of nourishment to the remaining portion, which will consequently grow with nearly double their former luxuriance. Again, when a tree becomes stunted or enfeebled in its growth, the thinness of its inner bark, with its consequent small sap-vessels (which it must be remembered are the principal channel for the passage of the ascending supply of food), renders the upward and downward circulation tardy, and the growth is small. By heading back or pruning judiciously, all the force of the nourishing fluid is thrown into a smaller number of buds, which make new and luxuriant shoots, larger sap-vessels, and which afford a ready passage to the fluids, and the tree with these renewed energies will continue in vigor for a long time.

This treatment is especially valuable in the case of small trees of feeble or stunted growth, which are frequently cut back to a single bud, and a new shoot or shoots, full of vigor, gives a healthy habit to the

trec. In the nurseries this practice of heading down unthrifty trees is frequently pursued, and small orchard trees which have become enfeebled may be treated in the same manner, cutting back the head as far as the place where it is wished that new shoots should spring out. Older trees should be headed back more sparingly, unless they are greatly enfeebled, and their roots should at the same time be assisted by manure.

A judicious pruning, to modify the form of our standard trees, is nearly all that is required in ordinary practice. *Every fruit-tree, grown in the open orchard or garden as a common standard, should be allowed to take its natural form, the whole efforts of the pruner going no further than to take out all weak and crowded branches;* those which are filling uselessly the interior of the tree, where their leaves cannot be duly exposed to the light and sun, or those which interfere with the growth of others. All pruning of large branches in healthy trees should be avoided, by examining them every season and taking out superfluous shoots while small. Mr. Coxe, the best American author on fruit-trees, remarks very truly: "When orchard trees are pruned, they are apt to throw out numerous (superfluous) suckers from the boughs in the following summer; these should be rubbed off when they first appear, or they may easily be broken off while young and brittle — cutting is apt to increase their number."

Where pruning is not required to renovate the vigor of an enfeebled tree, or to regulate its shape,—in other words, in the case of a healthy tree which we wish to retain in a state of the greatest luxuriance, health, and vigor,—it may be considered worse than useless. Bearing in mind that growth is always corresponding to the action of the leaves and branches, if these are in due proportion and in perfect health, the knife will always be found rather detrimental to luxuriance and constitutional vigor than beneficial.*

The best season for pruning to promote growth, theoretically, is in autumn, soon after the fall of the leaf. Next to this, winter pruning, performed in mild weather, is best, and in orchards this is the season usually most convenient.† In all parts of the country where the winters are not very severe (and always in the Southern or Western States) the roots are collecting a certain stock of nourishment during the whole autumn and winter. When a tree is pruned in autumn or winter this whole supply goes to the remaining branches, while in the case of spring pruning it is partly lost. North of the 43d degree of latitude, however, the winters are so severe that winter-pruning should be deferred till the last of February.

We should especially avoid pruning at that period in spring when

* Ignorant cultivators frequently weaken the energies of young trees, and cause them to grow up with lean and slender stems, by injudiciously trimming off the young side shoots and leaves in the growing season. By taking off these shoots the stem is deprived of all the leaves which would attract and elaborate the sap, thus preparing nourishment for the growth of the stem; and the trunk of the tree does not increase in size half so fast as when the side branches are allowed to remain for a time, pruning them away gradually. It is better, in the case of these young trees, to *stop* the side branches, when of moderate length, by pinching out the terminal bud.

† Experience of many years convinces us that, whatever theory may suggest, the *best* time to prune in order to promote growth, and to have the wound healed perfectly, is *very early* in spring, or as soon as the severity of winter has passed.

the buds are swelling, and the sap is in full flow, as the loss of sap by bleeding is very injurious to most trees, and in some brings on a serious and incurable canker in the limbs.

In pruning large limbs, some composition should always be at hand to cover the wound. This will not only prevent its cracking by the cold in winter-pruning, but will keep out the air, and maintain the exposed wood in a sound state until it is covered with a new layer of bark. Many compositions have been in fashion abroad for this purpose, which under our summer sun and wintry frosts are nearly worthless, as they generally crack and fall off in a single year. The following is a cheap and admirable application, which we recommend to all cultivators of fruit-trees.

Composition for wounds made in pruning. Take a quart of alcohol and dissolve in it as much gum-shellac as will make a liquid of the consistency of paint. Apply this to the wound with a common painter's brush; always paring the wound smoothly first with the knife. The liquid becomes perfectly hard, adheres closely, excludes the air perfectly, and is affected by no changes of weather; while at the same time its thinness offers no resistance to the lip of new bark that gradually closes over the wound. If the composition is kept in a well-corked bottle, sufficiently wide-mouthed to admit the brush, it will always be ready for use and suited to the want of the moment.

To prevent mice or rabbits from girdling trees. Great injury is done to young orchards in some districts by the *meadow mouse*. This little animal always works *under cover*, and therefore does its mischief in winter when the snow lies deeply upon the ground. A common and effectual mode of deterring it is that of treading down the snow firmly about the stem directly after every fall of snow. But this is a very troublesome affair.

The following mixture will be found to be an effectual prevention. Take one spadeful of hot slaked lime, one do. of clean cow-dung, half do. of soot, one handful of flowers of sulphur: mix the whole together with the addition of sufficient water to bring it to the consistency of thick paint. At the approach of winter paint the trunks of the trees sufficiently high to be beyond the reach of these vermin. Experience has proved that it does no injury to the tree. A dry day should be chosen for its application.

English nurserymen are in the habit of protecting nurseries of *small trees* from the attacks of *rabbits*, simply by distributing through the squares of the nursery coarse matches made by dipping bunches of rags, or bits of tow, in melted sulphur, and fastening these in split stakes a couple of feet high. The latter are stuck into the ground, among the trees, at from 12 to 20 feet apart, and are said completely to answer the purpose.

Wrapping the body of the tree with coarse hardware paper, letting the lower end of the paper go below the soil at the crown of the tree, will effectually prevent the attacks of rabbits.

Wash for the trunks and branches of fruit-trees. The best wash for the stems and branches of fruit-trees is made by dissolving two pounds of *potash* in two gallons of water. This is applied with a brush at any season, but perhaps with most effect in the spring. One, or at most two applications will rid the stem of trees of the bark-louse, and render it smooth and glossy. It is far more efficacious than whitewash, as a preservative against the attacks of insects, while it promotes the growth of the tree, and adds to the natural lively color of the bark.

The *wash of soft soap* is also a very good one for many purposes. Though not equal for general purposes to the potash wash, it is better for old trunks with thick and rigid bark, as a portion of it remains upon the surface of the bark for some time, and with the action of every rain is dissolved, and thus penetrates into all the crevices where insects may be lodged, destroying them, and softening the bark itself.

2. *Pruning to induce Fruitfulness.*

There are advantages and disadvantages attending all seasons of pruning, but our own experience has led us to believe that, practically, *a fortnight before midsummer is by far the best season on the whole for pruning in the Northern and Middle States.* Wounds made at this season heal over freely and rapidly; it is the most favorable time to judge of the shape and balance of the head, and to see at a glance which branches require removal; and all the stock of organizable matter in the tree is directed to the branches that remain.

When a young fruit-tree is too luxuriant, employing all its energies in making vigorous shoots, but forming few or no blossom buds, and producing no fruit, we have it in our power by different modes of pruning to lessen this over-luxuriance, and force it to expend its energies in fruit-bearing. A successful mode of doing this is by pruning the roots—a proceeding recently brought into very successful practice by European gardeners.

Root-pruning has the effect of at once cutting off a considerable supply of the nourishment formerly afforded by the roots of a tree. The leaves, losing part of their usual food, are neither able to grow as rapidly as before, nor to use all the nutritious matter already in the branches; the branches therefore become more stunted in their growth, the organizable matter accumulates, and fruit-buds are directly formed. The energies of the tree are no longer entirely carried off in growth, and the returning sap is employed in producing fruit-buds for the next year.

Root-pruning should be performed in autumn or winter, and it usually consists in laying bare the roots and cutting off smoothly at a distance of a few feet from the trunk (in proportion to the size of the tree) the principal roots. Mr. Rivers, an English nurseryman of celebrity, who has practised this mode with great success, digs a trench early in November, eighteen inches deep, round and under his trees to be root-pruned, cutting off the roots with a sharp spade. By following this practice every year he not only throws his trees into early bearing, but forces Apples, Pears, and the like, grafted on their own roots, to become prolific dwarfs, growing only six feet apart, trained in a conical form, full of fruit branches, and producing abundantly. Those dwarf trees, thus annually root-pruned, he supplies abundantly with old composted manure at the ends of the roots, thus keeping up their health and vigor. The plan is an admirable one for small gardens, or for amateurs who wish to grow a great many sorts in a small surface. Mr. Rivers, in a pamphlet on this subject, enumerates the following among the advantages of *systematic root-pruning*.—

“ 1. The facility of thinning (owing to the small size of the trees), and, in some varieties, of setting the blossoms of shy-bearing sorts, and of thinning and gathering the fruit.

“ 2. It will make the gardener independent of the natural soil of his

garden, as a few barrowfuls of rich mould will support a tree for a lengthened period, thus placing bad soils nearly on a level with those the most favorable.

"3. The capability of removing trees of fifteen or twenty years' growth with as much facility as furniture."

In conclusion, Mr. Rivers recommends *caution*; "enough of vigor must be left in the tree to support its crop of fruit, and one, two, or three seasons' cessation from root-pruning will often be found necessary."

Root-pruning in this country will, we think, be most valuable in its application to common standard trees, which are thrifty but bear little or no fruit. They will generally be found to require but a single pruning to bring them into a permanently fruitful condition; and some sorts of Pears and Plums, which do not usually give a fair crop till they are twelve or fourteen years old, may be brought into fruit by this means as soon as they are of proper size. Several nearly full-grown peach, pear, and plum trees, on a very rich soil on the Hudson, which were over-luxuriant but bore no fruit, were root-pruned by our advice, and yielded most excellent and abundant crops afterwards.

In the case of Apple orchards, where the permanent value depends on the size, *longevity*, and continued productiveness of the trees, it is better to wait patiently and not resort to pruning to bring them into bearing, as it cannot be denied that all excessive pruning shortens somewhat the life of a tree. Mr. Coxe, indeed, recommended that the first fruit should never be allowed to ripen on a young apple orchard, as it lessens very materially the vigor of the trees.

Shortening-in the shoots of Peaches, Nectarines, and Apricots, as we shall hereafter point out, has a strong tendency to increase the fruitfulness of these trees, since by reducing the young wood the sap accumulates in the remainder of the branch, and many bearing shoots are produced instead of one. And the English practice of *spurring-in*, which consists in annually shortening the lateral shoots of trained Pears, Apples, and the like, in order to make them throw out short fruit branches or spurs, is founded on the same principle.

Bending down the limbs is an easy and simple means of throwing such branches directly into fruit. By this means the circulation is retarded, rapid growth ceases, organizable matter accumulates, and fruit-buds, as before stated, surely follow. The limbs are bent while flexible, in June or July, and tied down below a horizontal line until they retain of themselves their new position. When this can be easily applied, it is a never-failing mode of rendering such branches fruitful. It is stated in Loudon's "Gardener's Magazine" that "a very large crop of Pears was obtained by the Rev. Mr. Fisher, in Buckinghamshire, from trees which had not borne at all, by twisting and breaking down the young shoots late in the autumn, when the wood had become tough; and the pendent branches afterwards continued perfectly healthy."

Disbarking and Ringing are two modes that have been recommended by some authors, but of which, except as curious experiments, we entirely disapprove. Disbarking, that is, removing the outer bark of the trunk in February, May, or March, is and may be practised with good results on trees in very sheltered positions, and under glass, but must always be a somewhat dangerous practice in open orchards, and in a variable climate like ours; while its good effects may in a great meas-

ure be attained by keeping the bark in a healthy state by a wash of soft soap. *Ringing*, which is nothing more than stopping the descending sap in a branch, and forcing it to organize blossom-buds, by taking off a ring of bark, say a fourth or half an inch, near midsummer, is a mode always more or less injurious to the health of the branch, and if carried to any extent finally destroys the tree. It is gradually falling into disuse since root-pruning and other and better modes are becoming known. A ligature or bandage, tightly applied to the limb, will have temporarily the same effect as ringing, without so much injury to the branch.

Inducing Fruitfulness by other Means.

The influence of certain soils on the productiveness of fruit-trees is a subject of every-day observation, but the particular ingredients of the soil which insure this abundant bearing are not so well known. Limestone soils are almost invariably productive of all sorts of fruit; and certain strong loams in this country seem to be equally well adapted to this end.

In a curious work called the "Rejuvenescence of Plants," &c., by Dr. Schultz, of Berlin, the author, who has devoted considerable time to the subject, states that common salt and chloride of lime contribute greatly to the flowering of most plants, to which, however, they can only be applied with safety in small quantities. "Salts of lime," he continues, "appear to produce so nearly the same effect as those of potash and soda, that it is only necessary to place lime within their reach, if there is no deficiency of manure in the shape of general food. Lime will in the main promote, in an astonishing degree, the fruit and flowering of most plants, because calcareous salts promote evaporation and the concentration of sap."

Although we cannot coincide with many of Dr. Schultz's views as expressed in this work, yet the remarks just quoted agree so entirely with facts that have come under our own observation, that we gladly place them before the cultivator of fruit-trees. One of the most productive fruit-gardens in our knowledge is on a limestone soil, and another, more than usually prolific, in a neighborhood not very fruitful, is every year treated with a top-dressing of coarse salt, at the rate of two bushels to the acre. These facts are surely worth the attention of growers, and should be the subject of more extended and careful experiments.

Rendering trees more fruitful by *dwarfing*, and by adapting them to soils naturally unfruitful by growing them upon other and better stocks, we have already placed before the reader under the head of *Grafting*.

CHAPTER V.

TRAINING.

TRAINING fruit-trees is, thanks to our favorable climate, a proceeding entirely unnecessary in the greater part of the United States. Our fine dry summers, with the great abundance of strong light and sun, are suf-

ficient to ripen fully the fruits of temperate climates, so that the whole art of training, at once the trial and triumph of skill with English fruit-gardeners, is quite dispensed with; and in the place of long lines of brick wall and espalier rails, surrounding and dividing the fruit-garden, all covered with carefully trained trees, we are proud to show the open orchard, and the borders in the fruit-garden filled with thrifty and productive standards. Nothing surprises a British gardener more, knowing the cold of our winter, than the first sight of peaches and other fine fruits arriving at full perfection in the Middle States with so little care; and he sees at once that three-fourths of the great expense of a fruit-garden here is rendered entirely needless.

Training fruit-trees, in this country, is therefore confined to the colder districts north of the 43° of latitude, and to the gardens of amateurs. There can, however, scarcely be a more beautiful display of the art of the horticulturist than a fine row of trained trees, their branches arranged with the utmost symmetry and regularity, and covered, in the fruit season, with large and richly colored fruit.

North of the 43° latitude (or north of the Mohawk) the peach does not ripen well, and this, as well as soem other rather tender trees, will, in such situations, generally yield abundant crops when trained on a common upright trellis, or espalier rail, seven or eight feet high.* Still farther north, as in Maine or Canada, a wall must be resorted to; but our own observation leads us to believe that, generally, the espalier rail will be found not only cheaper and more easily managed in training, but really preferable to a wall, as full exposure to light is sufficient without much additional heat. With regard to walls themselves, in the middle portions of the Union a southern aspect is almost always the worst, being too hot in midsummer; a wall running north and south, and affording east and west aspects, is much the best. The western aspect is indeed preferable for all tender fruits, as the blossoms are not there liable to injury from early frosts. A north wall is useful for producing a later crop.

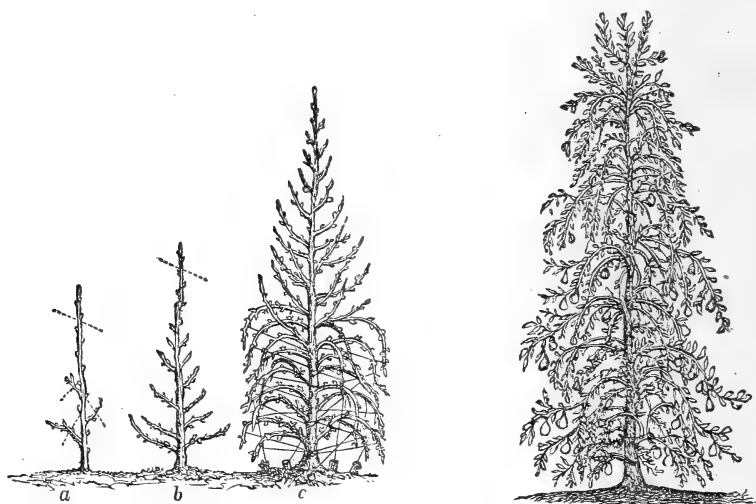
The objects of training are, by a more complete exposure of the leaves and branches to the light and sun, to ripen fruits in a naturally unfavorable climate; to render them more fruitful—lessening vigor and excessive growth by the lateral or horizontal arrangement of the branches; and lastly, economy of space, as trees when trained on a flat surface occupy much less space in the fruit-garden than standards, and leave the borders more open for cropping with vegetables.

Training conical standards. A very easy and simple mode of training fruit-trees, which has lately come into great favor with amateurs, is the conical standard, or *Quenouille* (pronounced *kenool*) of the French. It is applied chiefly to pears, which when treated in this way may be planted about eight feet apart, and thus a great variety of sorts may be grown in a small garden. A great number of the specimen trees in the London Horticultural Society's Garden are trained in this manner; and Loudon remarks, that in 1840 the Royal Kitchen Garden of Versailles contained two hundred trees trained in the conical manner, with the

* Cedar or locust posts, set four or eight feet apart, with horizontal bars let in, and crossed by light perpendicular strips of pine from six to twelve inches apart, will form an excellent and durable trellis for espaliers. See Fig 28. Indeed many gardeners here prefer having a light trellis a few inches from the wall upon which to train, instead of nailing directly on the wall.

current year's shoots tied down *en quenouille*. "They had attained the height of from six to twelve feet before the branches were bent down; but the effect of this was to cover the shoots with blossom-buds, and to produce the most extraordinary crops."

To produce Quenouille standards, plant a young tree, three or four feet high, and, after the first summer's growth, head back the top and cut-in the side branches, as represented by the dotted lines on *a*, Fig. 21. The next season the tree will shoot out three or four tiers of side branches, according to its strength. The lowest should be left about eighteen inches from the ground, and, by pinching off superfluous shoots, others may be made to grow pretty regularly, so as not to crowd the head. At the end of this season head back the leader as in *b*, to strengthen the side shoots. Next season a fresh series of lateral shoots will be produced, four or five of which may be kept every year; and the third or fourth year the lower branches may be bent down in mid-



Quenouille or Conical Training, progressive stages.

Conical or Quenouille Training, complete.

summer, *c*, and kept in a pendulous position for a year or two, by tying them to stakes driven in the ground, or to the main stem. This successive growth at the top, and arrangement of the limbs below, must be continued till the requisite height—say ten feet—is attained, when, all the branches assuming their final form, the tree will resemble Fig. 22. A moderate pruning to produce new wood, and the occasional tying in of a rambling shoot, will be all that is required. The French quenouille training is performed with dwarf stocks, but the trees are more thrifty and durable when grafted on their own stocks, and kept within proper bounds by root-pruning after Mr. Rivers's method, explained in a previous page.

Pyramids and bushes are trees adapted for small gardens, and not standards such as are planted in orchards. Mr. Rivers, whose success in training and fruiting dwarf trees has hardly an equal, gives the following directions:—"If a young gardener intends to plant, and wishes to train

up his trees so that they will become quite perfect in shape, he should select plants one year old from the bud or graft, with single upright stems; these will of course have good buds down to the junction of the graft with the stock. The first spring a tree of this description should be headed down, so as to leave the stem about eighteen inches long. If the soil be rich, from five to six and seven shoots will be produced; one of these must be made the leader, and if not inclined to be quite perpendicular, it must be fastened to a stake. As soon in summer as the leading shoot is ten inches long, its end must be pinched off; and if it pushes forth two or more shoots, pinch off all but one to three leaves, leaving the topmost for a leader. The side shoots will in most cases assume a regular shape; if not, they may be this first season tied to slight stakes, to make them grow in the proper direction. This is best done by bringing down and fastening the end of each shoot to a slight stake, so that an open pyramid may be formed; for if it is too close and cypress-like, enough air is not admitted to the fruit. They may remain unpruned till the end of August, when each shoot must be shortened to within eight buds of the stem. This will leave the tree so that no pruning in winter will be required. The second season the tree will make vigorous growth; the side shoots which were topped last August will each put forth three, four, or more shoots. In June, as soon as these have made four leaves, they must be pinched off to three leaves, and if these spurs put forth shoots, which they often do, every shoot must be pinched down to one leaf, *all but the leading shoot of each side branch*. This must be left on, to exhaust the tree of its superabundant sap, till the end of August. The perpendicular leader must be topped once or twice—in short, as soon as it has grown ten inches, pinch off its top, and if it break into two or three shoots, pinch them all but the leader, as directed for the first season; in a few years most symmetrical trees may be formed.”

The best modes of training for this country, on walls or espaliers, are fan-cordon and horizontal training. The first is the simplest and easiest mode of training the Peach, the Apricot, Nectarine, and Cherry; and the latter is best adapted to the Pear. In training to a wall, the branches are fastened in their places by shreds of leather and nails; and as espaliers, by tying them with slips of bass matting to the rails of the trellis.

Cordon-training has within the past few years become quite a feature among French gardeners, and is now being practised with success by many amateurs in this country. There are a number of varied modes of training *en cordon*, among which those termed *oblique cordon* and *espalier* or *lateral cordon* are most in use. *Oblique cordon* training serves to test in a small space a large number of varieties, and may in many cases be adopted with great satisfaction. Dubreil says: “In its practice choose healthy and vigorous young trees of one year’s growth, carrying only one stem. Plant them sixteen inches apart, and incline them one over the other at an angle of sixty degrees. Cut off about one-third of the length at or just above a front fruit-bud. During the following summer favor as much as possible the development of the terminal shoot; all the others must be transformed into fruit branches by the same means as described for pyramidal trees. The second pruning has for its object to transform the lateral shoots into fruit-spurs; the new extension of the stem must be cut back one-third. If the terminal extension has grown but slightly, and shows signs of weakness, the cut must be made lower down on the two-years wood, in order to obtain a more vigorous terminal shoot. By

the time of the third pruning, the young stem has generally attained two-thirds of its entire length; it must then be inclined to an angle of 45° ."

The same pruning of side branches and terminal shoot must be performed as last year, and continued from year to year until the desired height for covering the wall or trellis is attained; afterwards it must be yearly cut back about two feet, for the purpose of allowing a vigorous shoot to grow from the end, and thus keep up a healthy circulation.

Espalier or lateral cordon training is adapted to the borders of walks in gardens, and is suited more to the Apple worked on the Paradise stock than any other variety of tree. It is termed double or single arm cordon, as the trees have arms trained one or both ways. Fig. 23 shows at *a* a young maiden tree pruned for planting, while *b* shows the same with its limbs tied down to a wire, which is upheld by stakes about one foot above the ground, and secured firmly at each end of the line.

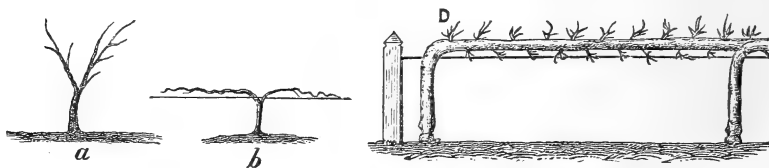


Fig. 24 shows the plants after being two or three years trained in single cordon—the terminal shoot of each tree being united by inarching at the junction with the stem and branch.

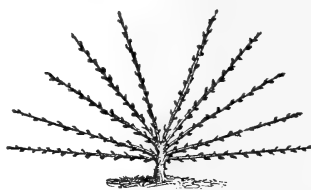
The following account of fan-training and horizontal training is so concisely abridged from the practice of the best English gardens, in the "Suburban Horticulturist," that we cannot do better than to place it before the reader.

Fan-training in the common English manner. A maiden plant (a tree but one year from the graft) being planted, "is to be headed down to four buds or eyes, placed in such a manner as to throw out two shoots on each side, as shown in Fig. 25. The following season the two uppermost shoots are to be headed down to three eyes, placed in such a manner as to throw out one leading shoot and one shoot on each side; the two lowermost shoots are to be headed down to



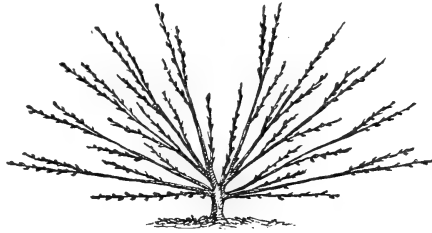
Fan-training, first stage.

two eyes, so as to throw out one leading shoot and one shoot on the uppermost side, as shown in Fig. 26. We have now five leading shoots on each side, well placed, to form our future tree. Each of these shoots must be placed in the exact position in which it is to remain; and as it is these shoots which are to form the future tree, none of them are to be shortened. The tree should by no means be suffered to bear any fruit this year. Each shoot must now be allowed to produce, besides the leading shoot at its extremity, two other shoots on the uppermost side, one near to the bottom and one about mid-



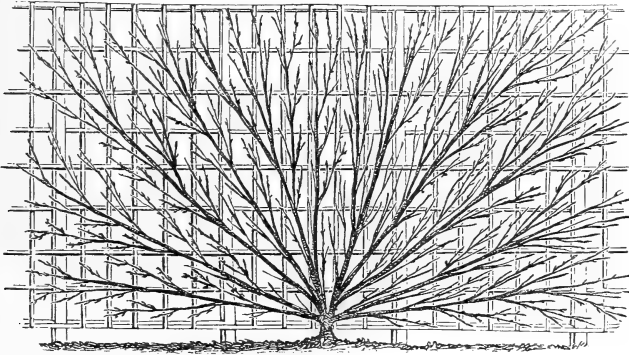
Fan-training, second stage.

way up the stem ; there must also be one shoot on the undermost side, placed about midway between the other two. All the other shoots must be pinched off in their infant state. The tree will then assume, at the end of the year, the appearance shown in Fig. 27. From this time it may be allowed to bear what crop of fruit the gardener thinks it able to carry ; in determining which he ought never to overrate the vigor of the tree. All of these shoots except the leading ones must at the proper season be shortened, but to what length must be left entirely to the judgment of the gardener, it of course



Fan-training, third stage.

depending upon the vigor of the tree. In shortening the shoot, care should be taken to cut back to a wood-bud that will produce a shoot for the following year. Cut close to the bud, so that the wound may heal the following season. The following year each shoot at the extremities of the leading branches should produce, besides the leading shoot, one on the upper and two on the under part, more or less, according to the vigor of the tree ; whilst each of the secondary branches should produce, besides the leading shoot, one other placed near the bottom ; for the grand art of pruning, in all systems to which this class of trees is subjected, consists in preserving a sufficient quantity of young wood at the bottom of the tree ; and on no account must the gardener cut away clean any shoots so placed, without well considering if they will be wanted, not only for the present but for the future good appearance of the tree. The quantity of young wood annually laid in must depend upon



Fan-training, complete.

the vigor of the tree. It would be ridiculous to lay the same quantity into a weakly tree as into a tree in full vigor. The gardener here must use his own judgment. But if any of the leading shoots manifest a disposition to outstrip the others, a portion of young shoots must be laid in, and a greater quantity of fruit suffered to ripen on the over-vigorous branch. At the same time a smaller quantity of fruit than usual must

be left to ripen on the weaker branch. This will tend to restore the equilibrium better than any other method. Fig. 28 presents us with the figure of a tree in a more advanced state, well balanced, and well calculated for an equal distribution of the sap all over its surface. [We have varied this figure by representing it trained on a trellis, instead of a wall.] Whenever any of the lower shoots have advanced so far as to incommode the others, they should be cut back to a yearling shoot; this will give them room, and keep the lower part of the tree in order. In nailing to a wall, care must be taken not to bruise any part of the shoot; the wounds made by the knife heal quickly, but a bruise often proves incurable. Never let a nail gall any part of the tree; it will endanger the life of the branch. In nailing-in the young shoots, dispose them as straight and regular as possible; it will look workman-like. Whatever system of training is pursued, the leading branches should be laid-in in the exact position they are to remain; for wherever a large branch is brought down to fill the lower part of the wall, the free ascent of the sap is obstructed by the extension of the upper, and contraction of the lower parts of the branch. It is thus robbed of part of its former vigor, while it seldom fails to throw out, immediately behind the parts most bent, one or more vigorous shoots."

Horizontal training consists in preserving an upright leader, with lateral shoots trained at regular intervals. These intervals may be from a foot to eighteen inches for pears and apples, and about nine inches for cherries and plums. "A maiden plant with three shoots having been



Horizontal training, first stage.

procured, the two side shoots are laid in horizontally, and the centre one upright, as in Fig. 29; all the buds being rubbed off the latter but three, viz.: one next the top for a vertical leader, and one on each side near the top, for horizontal branches. In the course of the first summer after planting, the shoots may be allowed to grow without being stopped. In the autumn of the first year the two laterals produced are nailed or tied in, and also the shoots produced from the extremities of the lower laterals; the centre shoot being headed down as before, as shown in Fig. 30. But in the second summer, when the main shoot has attained the length of ten or twelve inches, it may be stopped; which, if the plant is in proper vigor, will cause it to throw out two horizontal branches, in addition to those which were thrown out from those of the preceding year. The tree will now be in its second summer, and will have



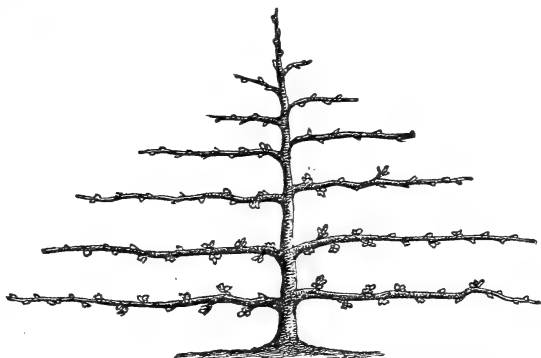
Horizontal training, second stage.



Horizontal training, third stage.

four horizontal branches on each side of the upright stem, as in Fig. 31; and, by persevering in this system, four horizontal branches will be

produced in each year till the tree reaches the top of the wall (or espalier), when the upright stem must terminate in two horizontal branches. In the following autumn the tree will have the appearance of Fig. 32."—*Suburban Horticulturist*, pp. 363 : 372.



Horizontal training, fourth year.

Training fruit-trees is nowhere in the United States practised to much extent, nor is it considered desirable in the general practice of fruit-growing. The additional labor is not met by a balance in superior quantity of product, and, while occasionally a few specimens may be procured in this manner of great beauty and excellence, the general crop is not satisfactory or profitable, either to the amateur or the market-grower.

CHAPTER VI.

TRANSPLANTING.

As nearly all fruit-trees are raised first in nurseries, and then removed to their final position in the orchard or fruit-garden; as upon the manner of this removal depends not only their slow or rapid growth, their feebleness or vigor afterwards, and in many cases even their life, it is evident that it is in the highest degree important to understand and practise well this *transplanting*.

The season best adapted for transplanting fruit-trees is a matter open to much difference of opinion among horticulturists; a difference founded mainly on experience, but without taking into account variation of climate and soils, two very important circumstances in all operations of this kind.

All physiologists, however, agree that the best season for transplanting deciduous trees is in autumn, directly after the fall of the leaf. The tree is then in a completely dormant state. Transplanted at this early season, whatever wounds may have been made in the roots commence healing at once, as a deposit directly takes place of granulous matter from the wound, and when the spring arrives the tree is already some-

what established, and ready to commence its growth. Early autumn planting is for this reason greatly to be preferred in all mild climates and dry soils; and even for very hardy trees, as the apple, in colder latitudes; as the fixed position in the ground, which trees planted then get by the autumnal and early spring rains, gives them an advantage at the next season of growth over newly-moved trees.

On the other hand, in northern portions of the Union, where the winters commence early, and are severe, spring planting is greatly preferred. There autumn and winter are not mild enough to allow this gradual process of healing and establishing the roots to go on; for when the ground is frozen to the depth of the roots of a tree, all that slow growth and connection of nutriment by the roots is necessarily at an end. And the more tender sorts of fruit-trees, the Peach and Apricot, which are less hardy when newly planted than when their roots are entire, and well fixed in the soil, are liable to injury in their branches by the cold. The proper time, in such a climate, is as early as the ground is in a fit condition in the spring.

Early in autumn, and in spring before the buds expand, may as a general rule be considered the best seasons for transplanting. It is true that there are instances of excellent success in planting at all seasons, except midsummer; and there are many who, from having been once or twice successful in transplanting when trees were nearly in leaf, avow that to be the best season; not taking into account that their success was probably entirely owing to a fortunately damp state of the atmosphere at the time, and abundant rains after the experiment was performed. In the Middle States we are frequently liable to a dry period in early summer, directly following the season of removal, and if transplanting is deferred to a late period in spring, many of the trees will perish from drought before their roots become established in the soil. Spring planting should therefore always be performed as soon as possible, that the roots may have the great benefit of the early and abundant rains of that season, and get well started before the heat of summer commences. For the neighborhood of New York, therefore, the best periods are from the fall of the leaf to the middle of November, in autumn, and from the close of winter to the middle of April, in the spring; though commonly the seasons of removal are frequently extended a month beyond these limits.

Taking up the trees is an important part of the operation. A planter should never forget that it is by the delicate and tender points or extremities of the root that trees take up their food; and that the chance of complete success is lessened by every one of these points that is bruised or destroyed. If we could remove trees with every fibre entire, as we do a plant in a pot, they would scarcely show any sign of their change of position. In most cases, especially in that of trees taken from nurseries, this is, by the operation of removal, nearly impossible. But although we may not hope to get every root entire, we may, with proper care, preserve by far the larger portion of them, and more particularly the small and delicate fibres. After being taken up, they should be planted directly; or, if this cannot be done, they should be kept from drying by a covering of mats, and, when sent to a distance, by being packed in damp moss.*

* We should notice an important exception to this in the case of trees packed

Preparing the places. Here is the fatal stumbling-block of all novices and ignorant persons in transplanting. An English gardener, when he is about to plant fruit-trees, talks about *preparing his borders*; an American says he will *dig his holes*; and we cannot give a more forcible illustration of the ideas of two persons as to the wants of a fruit-tree, or a better notion of the comparative provision made to supply these wants, than by contrasting the two phrases themselves. The one looks upon a tree as a living being, whose life is to be rendered long, vigorous, and fruitful by a good supply of food, and a soil mellow and easily penetrated by the smallest fibre; the other considers it very much in the light of a truncheon or a post, which he thrusts into the smallest possible hole, and supplies with the least portion of manure, trusting to what he seems to believe the inextinguishable powers of nature to make roots and branches under any circumstances. It is true that the terms differ somewhat from the nature of the culture and the greater preparation necessary in planting fruit-trees in England, but this is not by any means sufficient to justify the different modes of performing the same operation there and here.

In truth, in this country, where the sun and climate are so favorable, where pruning and training are comparatively so little necessary, the great requisite to success in the ordinary culture of fruit-trees is the *proper preparation of the soil* before a tree is planted. Whether a transplanted tree shall struggle several years to recover, or grow moderately after a short time, or at once start into a very luxuriant and vigorous growth, depends entirely upon the amount of care and labor the planter is willing to bestow on the soil for his trees. We have seen several instances where, side by side, one man planted his trees in large spaces of deeply moved and rich soil, and another in small holes in the common mode, which uniformly showed the trees of the first larger after five years than those of the last after twelve.

No fruit-tree should be planted in a hole of less size than three feet square, and eighteen inches to two feet deep. To this size and depth the soil should be removed and well pulverized, and it should, if necessary, be properly enriched by the application of well-rotted manure, which must be thoroughly mixed with the whole mass of prepared soil by repeated turnings with the spade. This preparation will answer, but the most skilful cultivators among us make their spaces four or five feet in diameter, or three times the size of the roots, and it is incredible how much the luxuriance and vigor of growth, even in a poor soil, is promoted by this. No after-mending of the soil, or top-dressings applied to the surface, can, in a climate of dry summers like ours, equal the effects of this early and deep loosening and enriching the soil. Its effects on the growth and health of the tree are permanent, and the little expense and care necessary in this preparation is a source of early and constant pleasure to the planter. This preparation may be made just before the tree is planted, but in heavy soils it is much better to do it several months previously; and no shallow ploughing of the soil can obviate the necessity and advantages of the practice where healthy, vigorous orchards or fruit-gardens are desired.

for shipping across the Atlantic. In this case they should be packed only in *dry* moss; the moisture of the sea air being sufficient to keep the roots in good condition, while if packed in damp moss they will be injured by rotting or excessive growth.

The whole art of transplanting, after this, consists in placing the roots as they were before, or in the most favorable position for growth. Begin by filling the hole with prepared soil, within as many inches of the top as will allow the tree to stand exactly as deep as it previously stood. With the spade, shape the soil for the roots in the form of a little hillock on which to place the roots—and not, as is commonly done, in the form of a hollow; the roots will then extend in their natural position, not being forced to turn up at the ends. Next examine the roots, and cut off all wounded parts, paring the wound smooth, cutting from the under side. Hold the tree upright on its little mound in the hole of prepared soil; extend the roots, and cover them carefully with the remaining pulverized soil. As much of the success of transplanting depends on bringing the soil in contact with every fibre, so as to leave no hollows to cause the decay of the roots, not only must this be secured by patiently filling in all cavities among the roots, but, when the trees are not quite small, it is customary to pour in a pail of water when the roots are nearly all covered with soil. This carries the liquid mould to every hidden part. After the water has settled away, fill up the hole, and avoid the common practice of shaking it up and down by the stem. In windy situations it will be necessary to place a stake by the side of each tree, to hold it upright, until it shall have taken firm root in the soil, but it is not needful in ordinary cases.

Avoid deep planting. More than half the losses in orchard planting in America arises from this cause, and the equally common one of crowding the earth too tightly about the roots. No tree should be placed deeper than it formerly grew, as its roots are stifled from the want of air, or starved by the poverty of the soil at the depth where they are placed. It is much the better and more natural process in fact to plant the tree so that it shall, when the whole is complete, appear just as deep as before, but standing on a little mound two or three inches higher than the level of the ground about. This, when the mound settles, will leave it nearly on the level with the previous surface.

Mulching is an excellent practice with transplanted trees, and more especially for those which are removed late in the spring. Mulching is nothing more than covering the ground about the stems with coarse straw, or litter from the barn-yard, which by preventing evaporation keeps the soil from becoming dry, and maintains it in that moist and equable condition of temperature most favorable to the growth of young roots. Very many trees, in a dry season, fail at midsummer, after having made a fine start, from the parched and variable condition of the earth about the roots. Watering frequently fails to save such trees, but mulching when they are planted will entirely obviate the necessity of watering in dry seasons, and promote growth under any circumstances. Indeed watering upon the surface, as commonly performed, is a most injurious practice, as the roots, stimulated at one period of the day by water, are only rendered more susceptible to the action of the hot sun at another, and the surface of the ground becomes so hard by repeated watering that the beneficial access of the air is almost cut off. If trees are well watered in the holes, while transplanting is going on, they will rarely need it again, and we may say *never*, if they are well mulched directly after planting.

The best manure to be used in preparing the soil for transplanting

trees is a compost formed of two-thirds muck or black peat earth, reduced by fermenting it several months in a heap with one-third fresh barn-yard manure. Almost every farm will supply this, and it is more permanent in its effects, and less drying in its nature, than the common manure of the stable. An admirable manure recently applied with great success is charcoal—the small broken bits and refuse of the charcoal pits—mixed intimately with the soil. Air-slaked lime is an excellent manure for fruit-trees in soils that are not naturally calcareous. Two or three handfuls may be mixed with the soil when preparing each space for planting, and a top-dressing may be applied with advantage occasionally afterwards, to increase their productiveness. But wherever large orchards or fruit-gardens are to be planted, the muck compost heap should be made ready beforehand, as it is the cheapest, most valuable, and durable of all manures for fruit-trees.

Pruning the heads of transplanted trees, at the season of removal, we think generally an injurious practice. It is certainly needless and hurtful in the case of small trees, or those of such a size as will allow the roots to be taken up nearly entire; for as the action of the branches and the roots is precisely reciprocal, and as new roots are rapidly formed just in proportion to the healthy action of the leaves, it follows that by needlessly cutting off the branches we lessen the vital action of the whole tree. At the same time, where trees are transplanted of so large a size that some of the roots are lost in removing them, it is necessary to cut back or shorten a few of the branches,—as many as will restore the balance of the system,—otherwise the perspiration of the leaves may be so great as to exhaust the supply of sap faster than the roots can collect it. A little judgment only is necessary to see at a glance how much of the top must be pruned away, before planting the tree, to equalize the loss between the branches and the roots.

When it is necessary to transplant fruit-trees of large size, the best practice is to prepare them previously by digging a trench round the whole mass of roots, undermining them, and cutting off all roots projecting beyond this line. The trench should be dug at such a distance from the tree as will include all the large and sufficient ball of roots, and it should be done early in the spring when it is desirable to remove the tree the next year. After all the roots that extend to this circular trench are cut off, the earth is replaced, and by the season following an abundance of small fibres is sent out by the amputated roots, which, when the whole is removed, will insure the success and speedy growth of the tree. This is more completely the case when the tree is prepared two years before transplanting. A variation of this mode, which has been found quite as successful and less laborious, consists in leaving the trench open and covering it with boards only, or boards with a top layer of turf. The tree then is somewhat checked in its growth, it throws out an abundance of small fibres into the ball of earth containing the roots, and is the next season transplanted with great ease and safety.

The proper size for transplanting varies somewhat with the sort of tree and the kind of culture intended. It is, however, a maxim equally well settled, both among theorists and the best practical men, that health, immediate vigor, and duration are all greatly promoted by transplanting fruit-trees of small size—from three to six or seven feet. We are fully aware with what impatience the beginner, or a person who knows

little of the culture of trees, looks upon trees of this size—one who is eager to plant an orchard and stock a garden with large trees, thinking to *gather a crop the next year*. The latter may indeed be done; but the transplanting so affects the tree that its first scanty crop is followed by a long season of rest and feeble growth, while the plantation of young trees is making wood rapidly, and soon comes into a healthy and long-continued state of productiveness—often long indeed before the large trees have fairly arrived at that condition. The small tree, transplanted with its system of roots and branches entire, suffers little or no check; the older and larger tree, losing part of its roots, requires several years to resume its former vigor. The constitution of the small tree is healthy and unimpaired; that of the large is frequently much enfeebled. A stout and vigorous habit—what the nurserymen call a *good stocky plant*—is the true criterion of merit in selecting fruit-trees for transplanting.

Trees intended for orchards, being often more exposed than those in gardens, should be somewhat larger—not less than six, or more than eight feet is the best size. For gardens, all experienced cultivators agree that a smaller size is preferable; we prefer plants two years old from the graft. Most gardeners abroad, when they select trees with more than usual care, take what are called maiden plants,—those one year old from the graft,—and there can be no doubt that, taking into account health, duration, and the ease with which such a tree can be made to grow into any form, this is truly the preferable size for removal into a fruit-garden. But we are an impatient people, and it is not till after another century of trial and experience in the culture of fruit-trees, that cultivators generally in this country will become aware of the truth of this fact.

The facility with which the different fruit-trees may be transplanted differs considerably. Plums are generally removed with most success, and after them nearly in the order as follows: Quinces, Apples, Pears, Peaches, Nectarines, Apricots, and Cherries; the latter succeeding with some difficulty when of large size.

Laying in by the heels is a practice adopted as a temporary kind of planting when a larger quantity of trees is at hand than can be set out immediately. A trench is opened, and the roots are laid in and covered with soil, the tops being previously placed in a sloping position, inclining to within a few feet of the surface. In this way they are kept fresh and in good order until it is convenient to plant them finally. In northern districts, where the autumn is often too severe for planting, and the spring is frequently too late to receive trees in time from nurseries farther south, it is a common and successful mode to procure trees in autumn, and lay them in by the heels until spring, covering over the tops of the more tender sorts, if necessary, with coarse litter.*

In planting an orchard, always avoid placing the trees in the same spot, or near, where an old tree stood before. Experience has taught us

* We have often known trees entirely destroyed by want of a little extra care in heading them in. Select first a dry knoll, or position where no water can stand, and, if possible, sheltered from the southern sun. After first digging a trench one foot or more deep, lay the trees down at an angle of about 45°, their tops to the south; then make the soil mellow and fine, and thoroughly intermingle it with the roots, filling all interstices, and covering them at least eighteen inches deep.

Trees are sometimes received in a frozen condition. They should then be placed at once, without unpacking, in a dark cellar, and left until gradually

that the growth of a young tree, in such a position, is weak and feeble; the nourishment suitable to that kind of tree having already been exhausted by a previous growth, and the soil being half filled with old and decayed roots which are detrimental to the health of the young tree.

CHAPTER VII.

THE POSITION OF FRUIT-TREES—SOIL AND ASPECT.

IN our favorable climate many fruit-trees will thrive and produce some fruit in almost any soil, except dry sand or wet swamps. But there is much to be gained in all climates by a judicious selection of soil, when this is in our power, or by that improvement which may generally be effected in inferior soils, where we are necessarily limited to such. As we shall, in treating the culture of each genus of fruit, state more in detail the soils especially adapted to its growth, our remarks here will be confined to the subject of soils generally for the orchard and fruit-garden.

The soils usually selected for making plantations of fruit-trees may be divided into light sandy loams, gravelly loams, strong loams, and clayey loams; the first having a large proportion of sand, and the last a large proportion of clay.

The soil most inviting to the eye is a *light sandy loam*, and as it is also a very common soil, more than half the fruit-gardens in the country are composed of this mould. The easy manner in which it is worked, owing to its loose and very friable nature, and the rapidity with which, from its warmth, crops of all kinds come into bearing, cause it to be looked upon with almost universal favor. Notwithstanding this, a pretty careful observation for several years has convinced us that a light sandy soil is, on the whole, the worst soil for fruit-trees. Under the bright skies of July and August, a fruit-tree requires a soil which will retain and afford a moderate and continued supply of moisture, and here the sandy soil fails. In consequence of this the vigor of the tree is checked, and it becomes feeble in its growth, and is comparatively short-lived or unproductive. As a tree in a feeble state is always most liable to the attacks of insects, those on a sandy soil are the first to fall a prey to numerous maladies.* The open loose texture of a sandy soil, joined to its warmth, affords an easy passage and an excellent habitation for all insects that pass part of their lives in the ground, preparatory to rising out of it to attack the fruit, foliage, or branches of the tree.

thawed out; or they may be at once—if the earth will allow—buried, tops and roots entire, beneath the ground, and there left for a few days, or until a moist cloudy day occurs for opening and exposing them to the light and air. This latter course is also a good one for trees that are received in a dry or shrivelled state.

* This remark applies to the middle and southern portions of this country. North of the 43° a light sandy soil is perhaps preferable, as warmer and earlier.

Such are some of the disadvantages of a light sandy soil ; and in thoroughly examining many of the fruit-gardens of the Middle States the last few seasons, we could not fail to be struck with the fact that, in nine cases out of ten, where a variety of fruit was unusually liable to disease, to blight, or to the attacks of certain fruit-destroying insects, as the curculio, the trees themselves were on sandy soils ; while on the other hand, and frequently in the same neighborhood, the same sorts were growing luxuriantly and bearing abundant crops where the soil was a rather strong loam.* For a few years the growth and productiveness of the trees upon sandy soil is all that can be desired ; but the trees are shorter lived, and sooner fall into decay than where the soil is stronger. If there is any exception to this rule, it is only in the case of the Peach ; and, judging from the superior flavor of this fruit on stronger soils, we are inclined to doubt the value of the exception even here.

Gravelly loams are frequently much better adapted for orchards than sandy, especially where the loam is of a strong quality, and the gravel is not in excess ; and the hardier fruits usually do well on this kind of soil.

Strong loams, by which we mean a loam with only just a sufficient portion of sand to make it easily worked, are, on the whole, by far the best for fruit-gardens in this country. A strong loam is usually a deep soil, and affords, during the whole heat of summer, a proper supply of moisture and nourishment to the roots of trees. Fruit-trees do not come into a bearing state so soon in a strong as in a sandy loam, because the growth of wood is more vigorous, and fruit-buds are not so soon formed ; but they bear larger crops, are much less liable to many diseases, and their longevity is much greater. The largest and most productive orchards of the Apple and Pear in this country are upon soils of this kind.

Clayey loams are, when well drained, and when the clay is not in excess, good fruit soils—they are usually strong and deep soils, though rather heavy and difficult to work. Trees that will flourish on these soils, such as the Apple, Pear, Cherry, Plum, and Apricot, usually are very free from disease or insects, and bear large crops. In a moist climate, like that of England, fruit-trees on a clayey loam would die of canker, brought on by the excessive quantity of water contained in the soil, but such is not the case under the high and warm temperature of our summers. The finest, largest, and most productive Plums and Pears within our knowledge, grow in sites on the North River, where the soil is a stiff clayey loam, almost approaching a clay. Those fruits that on light sandy soils are almost worthless, from their liability to disease and the attacks of insects, are here surprisingly luxuriant and fruitful.

It is, however, well to remark, that some varieties of fruit, perhaps from the circumstances of their origin, succeed better on sandy soils than any other ; thus the Newtown Pippin will only arrive at perfection in a strong loam, while the Summer Queen is finer when grown on a

* As an instance in point, the owner of one of the most highly cultivated gardens in the vicinity of Boston was showing us, in despair, some trees of the Seckel Pear, upon which he could no longer get good crops or fair fruit, and lamenting the *degeneracy* of the sort. The next day we saw in a neighboring garden beautiful crops of this Pear growing with the least possible care. The garden in the first case was a light sandy loam, in the second, a strong loam.

sandy, soil. But there are exceptions to all rules, and what we have already stated, as to the relative quality of soils, will apply pretty generally to the whole of this country, and it may be added that calcareous soils, of whatever texture, are better than soils of the same quality where no limestone is present.

Trenching is the most complete method of improving a soil too sandy, when the subsoil below is of a loamy or clayey nature. Deep subsoil ploughing, by bringing up a sufficient quantity of the stratum below, will answer the same purpose. When the subsoil of a sandy soil is sand or gravel, the surface can only be improved by top-dressings or the application of manures. Top-dressing with clay is the most simple means of changing the nature of such a soil, and it is surprising how moderate a quantity of clay will give a closer texture to light sandy soils. In manuring such soils, we may greatly improve their nature as well as condition by using composts of peat or bog earth, swamp muck, or river mud, instead of common barn-yard or stable manure. The former are not only more permanent and better as manures for fruit-trees, but they gradually consolidate and improve the whole texture of the soil.

Indeed no fruit-garden, where the soil is not naturally deep and rich, is in *perfect* condition for planting trees, unless the soil has been well trenched two spades in depth. This creates a matrix for the roots so deep and permanent that they retain their vigor and luxuriance through the droughts of summer, and continue for a long time in a state of health and productiveness.

It is difficult to give any precise rules as to *aspect*. We have seen fine fruit-gardens here in all aspects. Perhaps the very best aspect on the whole is a gentle slope to the southwest, because in such positions the trees when in blossom are somewhat protected from the bad effects of a morning sun after spring frosts. But, to remedy this more perfectly, it is sometimes the practice to plant on the north sides of hills, and this is an effectual way where early frosts are fatal, and where the season is long and warm enough to ripen the fruit in any exposure. A fine south slope is, south of New York, frequently found too warm for many fruit-trees in soils that are light and dry.

Deep valleys with small streams of water are the worst situations for fruit-trees, as the cold air settles down in these valleys in a calm frosty night, and buds and blossoms are very frequently destroyed. We know a rich and fertile valley of this kind in Connecticut where the Cherry will scarcely grow, and a crop of the Apple or the Pear is not obtained once in ten years; while the adjacent hill-tops and high country, a couple or three miles distant, yield abundant crops annually. On the other hand, the borders of large rivers, as the Hudson, or of some of our large inland lakes, are the most favorable situations for fruit-trees, as the climate is rendered milder by large bodies of water. In the garden where we write, a fourth of a mile from the Hudson, we have frequently seen ice formed during the night of the thickness of a dollar, when the blossoms of the Apricot were fully expanded, without doing the least harm to that tender fruit. This is owing to the slight fog rising from the river in the morning, which, softening the rays of the sun, and dissolving gradually the frost, prevents the injurious effects of sudden thawing. At the same time, a couple of miles from the shores, this fruit will often be quite destroyed. In short, the season on the lower half of the Hudson may,

from the ameliorating influence of the river, be said to be a month longer—a fortnight earlier in spring and later in autumn—than in the same latitude a few miles distant; and crops of the more tender fruits are therefore much more certain on the banks of large rivers or lakes than in inland districts of the same climate.

As our native forests become cleared away the climate is changed and becomes more harsh; hence it is found desirable to construct some kind of protection from the point of most destructive harsh winds and storms. Belts of trees, either evergreen or deciduous, or both mingled, and surrounding or placed so as to screen from the northeast, north, and northwest, are considered highly advantageous; and when we consider that foliage is an absorbent and ameliorating agent in tempering climate, we feel that it is the duty as well as interest of every fruit-grower to plant as many such belts as his property and pecuniary means admit.

CHAPTER VIII.

GENERAL REMARKS ON INSECTS.

THE insects injurious to fruit-trees are numerous, and to combat them successfully requires a minute acquaintance with their character and habits. While considering the culture of each class of fruit in the succeeding pages, we shall point out the habits and suggest means of destroying the most important of these insects; but in the mean time we wish to call attention to some general practical hints on this subject.

In the first place, we cannot too strongly impress upon the attention of the fruit-grower the importance of watching carefully and making an early attack upon every species of insect. It is only necessary to look for a moment at the astonishing rapidity with which many kinds of insects increase, if allowed to get well established in a garden, to become fully aware of this. The common caterpillars are the young of moths or butterflies, and that careful observer of the habits of insects, Dr. Harris, says as each female lays from two to five hundred eggs, a thousand moths or butterflies will, on the average, produce three hundred thousand caterpillars; if one half this number, when arrived at maturity, are females, they will give forty-five millions of caterpillars in the second, and six thousand seven hundred and fifty millions in the third generation.* To take another example: the *aphides*, or plant-lice, which are frequently seen in great numbers on the tender shoots of fruit-trees, have an almost incredibly prolific power of increase—the investigations of Réaumur having shown that one individual in five generations may become the progenitor of nearly six thousand millions of descendants. With such surprising powers of propagation, were it not for the havoc caused among insects by various species preying upon each other, by birds and other animals, and especially by unfavorable seasons, vegetation would

* For much valuable information on the habits of insects injurious to vegetation, see the "Treatise on the Insects of Massachusetts," by Dr. T. W. Harris, Cambridge.

soon be entirely destroyed by them. As it is, the orchards and gardens of careless and slovenly cultivators are often overrun by them, and many of the finest crops suffer great injury or total loss from the want of a little timely care.

In all well-managed plantations of fruit, at the first appearance of any injurious insect, it will be immediately seized upon and destroyed. A few moments in the first stage of insect life—at the first birth of the new colony—will do more to rid us for the season of that species than whole days of toil after the matter has been so long neglected that the enemy has become well established. We know how reluctant all but the experienced grower are, to set about eradicating what at first seems a thing of such trifling consequence. But such persons should consider that whether it is done at first, or a fortnight after, is frequently the difference between ten and ten thousand. A very little time regularly devoted to the extirpation of noxious insects will keep a large place quite free from them. We know a very large garden filled with trees, and always remarkably free from insect ravages, which, while those even in its vicinity suffer greatly, is thus preserved by half an hour's examination of the whole premises two days in the week during the growing season. This is made early in the morning, the best time for the purpose, as the insects are quiet while the dew is yet upon the leaves, and whole races yet only partially developed may be swept off in a single moment. In default of other more rapid expedients, the old mode of *hand-picking*, and crushing or burning, is the safest and surest that can be adopted. For practical purposes, the numerous insects infesting fruit-trees may be divided into four classes: 1st, those which for a time harbor in the ground and may be attacked in the soil; 2d, winged and other species, which may be attacked among the branches; 3d, aphides or plant-lice, which infest the young shoots; 4th, moths, and all night-flying insects.

Insects, the larvæ or grubs of which harbor in the ground during a certain season, as the curculio or plum-weevil, are all more or less affected by the application of common salt as a top-dressing. On a larger scale, in farm crops, the ravages of the cut-worm are frequently prevented by sowing three bushels of salt to the acre, and we have seen it applied to all kinds of fruit-grounds with equal success. Salt seems to be strongly disagreeable to nearly all this class of insects, and the grubs perish where even a small quantity has for two or three seasons been applied to the soil. In a neighborhood where the peach-worm usually destroys half the peach-trees, and where whole crops of the plum are equally a victim to the plum-weevil, we have seen the former preserved in the healthiest condition by an annual application of a small handful of coarse salt about the collar of the tree at the surface of the ground; and the latter made to hold abundant crops by a top-dressing applied every spring of packing salt, at the rate of a quart to the surface occupied by the roots of every full-grown tree.

Salt, being a powerful agent, must be applied for this purpose with caution and judgment. In small quantities it promotes the verdure and luxuriance of fruit-trees, while if applied very frequently, or too plentifully, it will certainly cause the death of any tree. Two or three years' top-dressing in moderate quantity will usually be found sufficient to drive away these insects, and then the application need only be repeated once in two or three seasons. Any coarse refuse salt will answer the

purpose; and packing salt is preferable to that of finer quality, as it dissolves slowly by the action of the atmosphere.*

In the winged state most small insects may either be driven away by powerful odors, or killed by strong decoctions of tobacco, or a wash of diluted whale-oil or other strong soap. Attention has but recently been called to the repugnance of all insects to strong odors, and there is but little doubt that before a long time it will lead to the discovery of the means of preventing the attacks of most insects, by means of strong smelling liquids or odorous substances. The moths that attack furs, as every one knows, are driven away by pepper-corns or tobacco, and should future experiments prove that at certain seasons, when our trees are most likely to be attacked by insects, we may expel them by hanging bottles or rags filled with strong smelling liquids in our trees, it will certainly be a very simple and easy way of ridding ourselves of them. The brown scale, a troublesome enemy of the orange-tree, it is stated in the *Gardener's Chronicle*, has been destroyed by hanging plants of the common chamomile among its branches. The odor of the coal-tar of gas-works is exceedingly offensive to some insects injurious to fruits, and it has been found to drive away the wire-worm and other grubs that attack the roots of plants. The vapor of oil of turpentine is fatal to wasps, and that of tobacco-smoke to the green fly. Little as yet is certainly known respecting the exact power of the various smells in deterring insects from attacking trees. What we do know, however, gives us reason to believe that much may be hoped from experiments made with a variety of powerful-smelling substances.

Tobacco-water and diluted whale-oil soap are the two most efficient remedies for all the small insects which feed upon the young shoots and leaves of plants. Tobacco-water is made by boiling tobacco leaves, or the refuse stems and stalks of the tobacco-shops. A large pot is crowded full of them, and then filled up with water, which is boiled till a strong decoction is made. This is applied to the young shoots and leaves with a syringe, or, when the trees are growing in nursery-rows, with a common white-wash brush, dipping the latter in the liquid and shaking it sharply over the extremities or the infested part of each tree. This or the whale-oil soap-suds, or a mixture of both, will kill every species of plant-lice and nearly all other small insects to which young trees are subject.

The wash of whale-oil soap is made by mixing two pounds of this soap, which is one of the cheapest and strongest kinds, with fifteen gallons of water. This mixture is applied to the leaves and stems of plants with a syringe, or in any other convenient mode, and there are few of the smaller insects that are not destroyed or driven away by it. The merit of this mixture belongs to Mr. David Haggerston, of Boston, who first applied it with great success to the rose-slug, and received the premium of the Massachusetts Horticultural Society for its discovery. When this soap cannot be obtained, a good substitute may be made by turning into soap the lees of common oil-casks, by the application of potash and water in the usual way.

Moths and other insects which fly at night are destroyed in large numbers by the following mode, first discovered by Victor Adouin, of France. A flat saucer or vessel is set on the ground, in which is placed

* After repeated tests, it is doubtful whether the use of salt is as destructive to insect life as here stated. The use of salt as manure is undoubtedly a good stimulant to vegetable life and vigor.

a light, partially covered with a common bell-glass besmeared with oil. All the small moths are directly attracted by the light, fly towards it, and in their attempts to get at the light, are either caught by the glutinous sides of the bell-glass, or fall into the basin of oil beneath, and in either case soon perish. M. Adouin applied this to the destruction of the *pyralis*, a moth that is very troublesome in the French vineyards; with two hundred of these lights in a vineyard of four acres, and in a single night, 30,000 moths were killed and found dead on or about the vessels. By continuing his process through the season, it was estimated that he had destroyed female moths sufficient to have produced a progeny of over a million of caterpillars. In our orchards myriads of insects may be destroyed by lighting small bonfires of shavings or any refuse brush; and in districts where the apples are much worm-eaten, if repeated two or three nights at the proper season, this is a very efficient and cheap mode of getting rid of the moth which causes so much mischief. Dr. Harris, knowing how important it is to destroy the caterpillar in the moth state, has recommended flambeaux, made of tow wound round a stake and dipped in tar, to be stuck in the fruit-garden at night and lighted. Thousands of moths will find a speedy death, even in the short time which these flambeaux are burning. The melon-bug may be extirpated by myriads in the same way.

A simple and most effectual mode of ridding the fruit-garden of insects of every description, which we recommend as a general extirpator suited to all situations, is the following:—Take a number of common bottles, the wider mouthed the better, and fill them about half full of a mixture of water, molasses, and vinegar. Suspend these among the branches of trees and in various parts of the garden. In a fortnight they will be found full of dead insects of every description not too large to enter bottles—wasps, flies, beetles, slugs, grubs, and a great variety of others. The bottles must now be emptied and the liquid renewed. A zealous amateur of our acquaintance caught last season in this way *more than three bushels* of insects of various kinds; and, what is more satisfactory, preserved his garden almost entirely against their attacks in any shape.

The assistance of birds in destroying insects should be duly estimated by the fruit-grower. The quantity of eggs and insects in various states devoured annually by birds, when they are encouraged in gardens, is truly surprising. It is true that one or two species of these, as the ring-tail, annoy us by preying upon the earlier cherries, but even taking this into account, we are inclined to believe that we can much better spare a reasonable share of a few fruits than dispense with the good services of birds in ridding us of an excess of insects.

The most serviceable birds are the common sparrows, the wren, the red-breast, and in short most of the birds of this class. All these birds should be encouraged to build nests and inhabit the fruit-garden, and this may most effectually be done by not allowing a gun to be fired within its boundaries. The introduction of hedges or live fences greatly promotes the domestication of birds, as they afford an admirable shelter for their nests. Our own gardens are usually much more free from insects than those a mile or two distant, and we attribute this in part to our practice of encouraging birds, and to the thorn and arbor vitæ hedges growing here, and which are greatly resorted to by those of the feathered tribe which are the greatest enemies of the insect race.

Among animals, the *toad* and the *bat* are great insect destroyers. The common bat lives almost entirely upon them, and in its evening sallies devours a great number of moths, beetles, weevils, etc.; and the toad quietly makes away with numberless smaller insects.

CHAPTER IX.

THE APPLE.

Pyrus Malus, L. Rosaceæ, of botanists.

Pommier, of the French; *Apfelbaum*, German; *Apfel*, Dutch; *Melo pomo*, Italian; and *Manzana*, Spanish.

THE Apple is the world-renowned fruit of temperate climates. From the most remote periods it has been the subject of praise among writers and poets, and the old mythologies all endow its fruit with wonderful virtues. The allegorical tree of knowledge bore apples, and the celebrated golden fruit of the orchards of Hesperus, guarded by the sleepless dragon which it was one of the triumphs of Hercules to slay, were also apples, according to the old legends. Among the heathen gods of the north, there were apples fabled to possess the power of conferring immortality, which were carefully watched over by the goddess Iduna, and kept for the especial dessert of the gods who felt themselves growing old! As the mistletoe grew chiefly on the apple and the oak, the former tree was looked upon with great respect and reverence by the ancient Druids of Britain; and even to this day, in some parts of England, the antique custom of saluting the apple-trees in the orchards, in the hope of obtaining a good crop the next year, still lingers among the farmers of portions of Devonshire and Herefordshire. This old ceremony consists of saluting the tree with a portion of the contents of a wassail-bowl of cider, with a toast in it, by pouring a little of the cider about the roots, and even hanging a bit of the toast on the branches of the most barren, the farmer and his men dancing in a circle round the tree, and singing rude songs like the following :

“ Here’s to thee, old apple-tree,
 Whence thou mayst bud, and whence thou mayst blow ;
 And whence thou mayst bear apples enow,
 Hats full ! caps full—
 Bushels and sacks full !
 Huzza ! ”

The species of crab from which all our sorts of Apples have originated, is wild in most parts of Europe. There are, indeed, two or three kinds of wild crab belonging to this country; as the *Pyrus coronaria*, or sweet-scented crab, with fruit about an inch in diameter, grows in many parts of the United States; and the wild crab of Oregon, *P. rivularis*, bearing a reddish-yellow fruit, about the size of a cherry, which the Chenook Indians use as an article of food; yet none of our cultivated varieties of Apple have been raised from these native crabs, but from seeds of the species brought here, by the colonists, from Europe.

The Apple-tree is, however, most perfectly naturalized in America, and, in the northern and middle portions of the United States, succeeds as well, or, as we believe, better than in any part of the world. The most celebrated apples of Germany and the north of Europe are not superior to many of the varieties originated here; and the American or Newtown Pippin is now pretty generally admitted to be the finest apple in the world. No better proof of the perfect adaptation of our soil and climate to this tree can be desired, than the seemingly spontaneous production of such varieties as this, the Baldwin, the Spitzenberg, or the Swaar—all fruits of delicious flavor, and great beauty of appearance.

The Apple is usually a very hardy and rather slow-growing fruit-tree, with a low-spreading rather irregular head, and bears an abundance of white blossoms, tinged with red. In a wild state it is very long-lived, but the finest garden sorts usually live about fifty or eighty years; though, by proper care, they may be kept healthy and productive much longer. Although the apple generally forms a tree of medium growth, there are many specimens in this country of enormous size. Among others, we recollect two in the grounds of Mr. Hall, of Raynham, Rhode Island, which, ten years ago, were 130 years old; the trunk of one of these trees then measured, at one foot from the ground, thirteen feet two inches, and the other twelve feet two inches. The trees bore that season about thirty or forty bushels; but, in the year 1780, they together bore one hundred and one bushels of apples. In Duxbury, Plymouth County, Mass., is a tree which in its girth measures twelve feet five inches, and which has yielded in a single season 121½ bushels.

In Lehigh County, Pa., there is an apple-tree which measures 17½ feet in circumference, one foot above the ground. The tree is fifty-four feet high, and the branches extend thirty-six feet each way from the trunk.

USES OF THE APPLE.

No fruit is more universally liked or generally used than the apple. It is exceedingly wholesome, and, medicinally, is considered cooling and laxative, and useful in all inflammatory diseases. The finest sorts are much esteemed for the dessert, and the little care required in its culture renders it the most abundant of all fruits in temperate climates. As the earliest sorts ripen about the last of June, and the latest can be preserved until that season, it may be considered as a fruit in perfection the whole year. Besides its merits for the dessert, the value of the apple is still greater for the kitchen; and in sauces, pies, tarts, preserves, and jellies, and roasted and boiled, this fruit is the constant and invaluable resource of the kitchen.

In seasons of scarcity, the small and usually considered refuse apples may be stewed, and then rubbed through a cullender, separating the seeds and skins from the pulp, forming a delicious sauce.

Apple-butter, made by stewing pared and sliced sweet apples in new cider until the whole is soft and pulpy, is a common and excellent article of food in many farmers' families, and is frequently made by the barrel. In France, nearly the same preparation is formed by simmering apples in new wine until the whole becomes a sort of marmalade, which is called *Raisiné*. The juice of the apple unfermented is, in some parts of the country, boiled down till it becomes molasses. When fermented it forms *cider*; and if this is carefully made from the best cider apples

it is nearly equal to wine; in fact, many hundreds of barrels of the cider of New Jersey have been manufactured, in a single year, into an imitation champagne, which is scarcely distinguished by many from that made from the grape.

Apples are also made into jelly, by grinding and pressing in the ordinary way for cider, then passed, in a thin and nearly continuous current, over an intensely heated clarifying or evaporating pan, such as is ordinarily used in the manufacture of molasses from the sorgho sugar-cane. About eight gallons of the apple-juice, or cider, will make one gallon of a very delicious jelly.

Dried apples are also a considerable article of commerce. Farmers usually pare and quarter them by hand, and dry them in the sun; but those who pursue it as a matter of trade pare them by machinery, and dry them slowly in ovens. They are then packed in bags or barrels, and used either at home, in sea stores, or are exported.

In perfumery, the pulp of this fruit, mixed intimately with lard, forms pomatum. The wood is employed for lasts, and for other purposes, by turners; and, being fine-grained and compact, is sometimes stained black and used for ebony by cabinet-makers.

The quality of an apple is always judged of by the use to which it is to be applied. A table or dessert apple of the finest quality should be of medium size, regular form, and fine color; and the flesh should be fine-grained, crisp, or tender, and of a sprightly or rich flavor and aroma. Very large-sized, or coarse apples are only admired by persons who have little knowledge of the true criterion of excellence. Apples for kitchen use should have the property of cooking evenly into a tender, pulpy consistence, and are generally acid in flavor; and, although there are many good cooking apples unfit for the table, many sorts, as the Fall Pippin and the Greening, are excellent for both purposes. To this we may add, that for the common apple-sauce made by farmers, a high-flavored sweet apple, which boils somewhat firm, is preferred, as this is generally made with cider. The very common use made of this cheap preserve at the North and West, and the recent practice of fattening hogs, horses, and other animals upon sweet apples, accounts for the much greater number of varieties of sweet apples held in esteem here than in any other country. In fact, so excellent has the saccharine matter of the apple been found for this purpose, that whole orchards of sweet apples are frequently planted here for the purpose of fattening swine and cattle, which are allowed to run at large in them.

Cider apples are varieties frequently useless for any other purpose. The best for this purpose are rather tough, piquant, and astringent; their juice has a high specific quality, and they are usually great bearers, as the Harrison, the Red Streak, and the Virginia Crab.

PROPAGATION.

The Apple for propagation is usually raised from seeds obtained from the pomace of the cider-mills, and a preference is always given to that from thrifty young orchards. These are sown in autumn, in broad drills, in good mellow soil, and they remain in the seed-beds—attention being paid to keeping the soil loose, and free from weeds, from one to three years, according to the richness of the soil. When the seedlings are a little more than a fourth of an inch in diameter, they

should be taken up in the spring or autumn, their tap-roots shortened, and then planted in nursery rows, one foot apart, and three to four feet between the rows. If the plants are thrifty and the soil good, they may be budded the following autumn, within one or two inches of the ground, and this is the most speedy mode of obtaining strong, straight, thrifty plants. Grafting is generally performed when the stocks are about half an inch thick; and for several modes of performing it on the Apple, see the remarks on *grafting* in a previous page. When young trees are feeble in the nursery, it is usual to head them back two-thirds the length of the graft, when they are three or four feet high, to make them throw up a strong, vigorous shoot.

Apple-stocks for dwarfs are raised by layers, as pointed out in the article on Layers.

Apple-trees for transplanting to orchards should be at least two years budded, and six or seven feet high, and they should have a proper balance of head or side branches.

SOIL AND SITUATION.

The Apple will grow on a great variety of soils, but it seldom thrives on very dry sands, or soils saturated with moisture. Its favorite soil, in all countries, is a strong loam of a calcareous or limestone nature. A deep, strong, gravelly, marly, or clayey loam, or a strong sandy loam on a gravelly subsoil, produces the greatest crops and the highest-flavored fruit, as well as the utmost longevity of the trees. Such a soil is moist rather than dry—the most favorable condition for this fruit. Too damp soils may often be rendered fit for the Apple by thorough draining, and too dry ones by deep subsoil ploughing, or trenching, where the subsoil is of a heavier texture. And many apple orchards in New England are very flourishing and productive on soils so stony and rock-covered (though naturally fertile) as to be unfit for any other crop.*

As regards site, apple orchards flourish best in southern and middle portions of the country on north slopes, and often even on the steep north sides of hills, where the climate is hot and dry. Farther north a southern or southeasterly aspect is preferable, to ripen the crop and the wood more perfectly.

We may here remark that almost every district of the country has one or more varieties which, having had its origin there, seems also peculiarly adapted to the soil and climate of that locality. Thus the Newtown Pippin and the Spitzenberg are the great apples of New York; the Baldwin and the Roxbury Russet, of Massachusetts; the Bellflower and the Rambo, of Pennsylvania and New Jersey; and the Peck's Pleasant

* Blowing sands, says Mr. Coxe, when bottomed on a dry substratum, and aided by marl or meadow mud, will be found capable of producing very fine Apple-trees. Good cultivation and a system of high manuring will always remunerate the proprietor of an orchard, except it be planted on a quicksand or a cold clay; in such soils, no management can prevent an early decay. One of the most thrifty orchards I possess, was planted on a blowing sand, on which I carted three thousand loads of mud on ten acres, at an expense of about twenty-five dollars per acre, exclusive of much other manure; on this land I have raised good wheat and clover. Of five rows of the Winesap Apple planted upon it eight years ago, on the summit of a sandy knoll, not one has died out of near an hundred trees—all abundant bearers of large and fair apples.—*View of Fruit Trees*, p. 31.

and the Seek-no-further, of Connecticut; and though these apples are cultivated with greater or less success in other parts of the country, yet nowhere is their flavor and productiveness so perfect as in the best soils of their native districts—excepting in such other districts where a *soil containing the same elements* and a *corresponding climate* are also to be found.

PREPARING, PLANTING, AND CULTIVATION OF ORCHARDS.

With the exception of a few early and very choice sorts in the fruit-garden, the orchard is the place for this tree, and indeed, when we consider the great value and usefulness of apples to the farmer, it is easy to see that no farm is complete without a large and well-selected apple orchard.

The distance at which the trees should be planted in an orchard, depends upon the mode in which they are to be treated. When it is desired finally to cover and devote the whole ground to the trees, thirty feet apart is the proper interval; but where the farmer wishes to keep the land between the trees in grain and grass, fifty feet is not too great a distance in strong soils. Forty feet apart, however, is the usual distance at which the trees are planted in orchards.

Before transplanting, the ground should be well prepared for the trees by ploughing deeply and subsoiling the whole field one year or more previous to planting. Poor soils require manure; and turning under green crops, such as clover, peas, etc., serves to lighten and make porous, open, and enrich the soil. Where the subsoil is a heavy clay, it is best to thoroughly underdrain the whole by means of tile drains, at distances of two or three rods, and at the same time the surface drains should always be kept open, to prevent any water standing about the roots of the trees.

Vigorous, healthy young trees should be selected from the nurseries. As there is a great difference in the natural growth, shape, and size of the various sorts of apple-trees, those of the same kind should be planted in the rows together or near each other; this will not only facilitate culture and gathering the fruit, but will add to the neatness and orderly appearance of the orchard.

It is an indispensable requisite in all young orchards to keep the ground mellow and loose by cultivation; at least for the first few years, until the trees are well established. Indeed, of two adjoining orchards, one planted and kept in grass, and the other ploughed for the first five years, there will be an incredible difference in favor of the latter. Not only will these trees show rich, dark, luxuriant foliage, and clean smooth stems, while those neglected will have a starved and sickly look, but the size of the trees in the cultivated orchard will be treble that of the others at the end of this time, and a tree in one will be ready to bear an abundant crop before the other has commenced yielding a peck of good fruit. Fallow crops are the best for orchards—potatoes, beets, carrots, bush beans, and the like; while grains, such as rye, wheat, oats, etc., are very injurious; but whatever crops may be grown, it should constantly be borne in mind that the roots of the tree require the sole occupancy of the ground, so far as they extend, and therefore that an area of more than the diameter of the head of the tree should be kept clean of crops, weeds, and grass.

When the least symptom of failure or decay in a bearing orchard is

perceived, the ground should have a good top-dressing of manure, and of marl, or mild lime, in alternate years. It is folly to suppose that so strong-growing a tree as the apple, when planted thickly in an orchard, will not, after a few heavy crops of fruit, exhaust the soil of much of its proper food. If we desire our trees to continue in a healthy bearing state, we should therefore manure them as regularly as any other crop, and they will amply repay the expense. There is scarcely a farm where the *waste* of barn-yard manure, the urine, etc., if properly economized by mixing this animal excrement with the muck-heap, would not be amply sufficient to keep the orchards in the highest condition. And how many moss-covered barren orchards, formerly very productive, do we not every day see, which only require a plentiful new supply of food in a substantial top-dressing, thorough scraping of the stems, and washing with diluted soft soap, to bring them again into the finest state of vigor and productiveness.

The bearing year of the Apple, in common culture, only takes place every alternate year, owing to the excessive crops which it usually produces, by which they exhaust most of the organizable matter laid up by the tree, which then requires another season to recover and collect a sufficient supply again to form fruit-buds. When half the fruit is thinned out in a young state, leaving only a moderate crop, the apple, like other fruit-trees, will bear every year, as it will also if the soil is kept in high condition. The bearing year of an apple-tree, or a whole orchard, may be changed by picking off the fruit when the trees first show good crops, allowing it to remain only in the alternate seasons which we wish to make the bearing year.

PRUNING.

The Apple in orchards requires very little pruning if the trees, while the orchard is young, are carefully inspected every year early in March, and all crossing branches taken out while they are small. When the heads are once properly adjusted and well balanced, the less the pruning-saw and knife are used the better, and the cutting out of dead limbs, and removal of such as may interfere with others, or too greatly crowd up the head of the tree, is all that an orchard will usually require. But wherever a limb is pruned away the surface of the wound should be neatly smoothed, and if it exceeds an inch in diameter, it should be covered with the liquid shellac previously noticed.

INSECTS.

There are several insects that in some parts of the country are very destructive or injurious to this tree; a knowledge of the habits of which is therefore very important to the orchardist. These are chiefly the borer, the caterpillar, and the canker-worm.

The Apple-borer is, as we usually see it in the trunks of the Apple, Quince, and thorn trees, a fleshy white grub, which enters the tree at the collar, just at the surface of the ground, where the bark is tender, and either girdles the tree or perforates it through every part of the stem, finally causing its death. This grub is the larva of a brown and white striped beetle, half an inch long (*Saperda bivittata*), and it remains in this grub state two or three years, coming out of the tree in a butterfly

form early in June—flying in the night only, from tree to tree, after its food, and finally depositing its eggs, during this and the next month, in the collar of the tree.

The most effectual mode of destroying the borer is by picking it out with the point of a knife, or, when it cannot thus be reached, killing it by thrusting a flexible wire as far as possible into its hole. Dr. Harris recommends placing a bit of camphor in the mouth of the aperture and plugging the hole with soft wood. But it is always better to prevent the deposit of the egg, by placing about the trunk, early in the spring, a small mound of ashes or lime; or by drawing away the soil an inch or two deep at the base of the tree and wrapping with coarse hardware paper, tying it, and then replacing the earth; and where orchards have already become greatly infested with this insect, the beetles may be destroyed by thousands in June, by building small bonfires of shavings in various parts of the orchard. The attacks of the borer on nursery trees may in a great measure be prevented by washing the stems in May, quite down into the ground, with a solution of two pounds of potash in eight quarts of water.

The *Caterpillar* is a great pestilence in the Apple orchard. The species which is most troublesome to our fruit-trees (*Ulisicampa americana*) is bred by a sort of lackey moth, different from that most troublesome in Europe, but its habits as a caterpillar are quite as annoying to the orchardist. The moth of our common caterpillar is a reddish brown insect, whose expanded wings measure about an inch and a half. These moths appear in great abundance in midsummer, flying only at night, and often buzzing about the candles of our houses. In laying their eggs they choose principally the Apple or Cherry, and they deposit thousands of small eggs about the forks and extremities of the young branches. The next season, about the middle of May, these eggs begin to hatch, and the young caterpillars in myriads come forth, weaving their nests or tents in the fork of the branches. If they are allowed by the careless cultivator to go on and multiply, as they soon do incredibly fast, they will in a few seasons, sometimes in a single year, increase to such an extent as almost to cover the branches. In this caterpillar state they live six or seven weeks, feeding most ferociously upon the leaves, and often stripping whole trees of their foliage. Their effect upon the tree at this period of the season, when the leaves are most important to the health of the tree and the growth of the fruit, is most deplorable. The crop is stunted, the health of the tree enfeebled, and, if they are allowed to remain unmolested for several seasons, they will often destroy its life, or render it exceedingly decrepid and feeble.

To destroy the caterpillar various modes are adopted. One of the most effectual is to touch the nest with a sponge, attached to the end of a pole, and dipped in strong spirits of ammonia or naphtha from coal-oil refinings; the sponge should be turned slowly round in the nests, and every insect coming in contact will be instantly killed. This should be done early in the season. Or they may be brought down and destroyed with a round brush fixed to the end of a pole, and worked about in the nests. On small trees they may be stripped off with the hand, and crushed under the foot; and by this plain and simple mode, begun in time, with the aid of a ladder, they may in a large orchard be most effectually kept under by a few moments' daily labor of a single man. As they do not leave their nests until nine in the morning, the

extirpator of caterpillars should always be abroad and busy before that time, and while they are all lying quietly in the nests. And let him never forget that he may do more in an hour, when he commences early in the season, than he will in a whole day at a later period, when they are thoroughly scattered among the trees. If they are allowed to remain unmolested, they spin their cocoons about the middle of June, and in a fortnight's time comes forth from them a fresh brood of moths, which, if they are not put an end to by bonfires, will again lay the eggs of an infinite number of caterpillars for the next spring.

The Canker-worm (*Anisopteryx pometaria* of Harris) is in some parts of the country one of the worst enemies of the Apple, destroying also its foliage with great rapidity. It is not yet common here, but in some parts of New England it has become a serious enemy. The male is a moth, with pale ash-colored wings, with a black dot, a little more than an inch across. The female is wingless, oval, dark ash-colored above, and gray beneath.

The canker-worm usually rises out of the ground very early in the spring, chiefly in March, as soon as the ground is free from frost; though a few also find their way up in the autumn. The females, having no wings, climb slowly up the trunks of the trees, while the winged males hover about to pair with them. Very soon after this, if we examine the trees we shall see the eggs, of which every female lays some sixty or a hundred, glued over, closely arranged in rows, and placed in the forks of branches and among the young twigs. About the twentieth of May these eggs are hatched, and the canker-worms, dusky brown, or ash-colored, with a yellow stripe, make their appearance, and commence preying upon the foliage. When they are abundant they make rapid progress, and in places where the colony is firmly established, they will sometimes strip an orchard in a few days, making it look as if a fire had passed over it. After feeding about four weeks, they descend into the ground three or four inches, where they remain in a chrysalis form, to emerge again the next season. As the female is not provided with wings, they do not spread very rapidly from one place to another.

The attacks upon the canker-worm should be chiefly made upon the female in her way from the ground up the trunk of the tree.

The common mode of protecting Apple-trees is to surround the trunk with a belt or bandage of canvas, four or five inches wide, which is then thickly smeared with tar. In order to prevent the tar from soon becoming dry and hard, a little coarse train-oil must be well mixed with it; and it should be watched and renewed as often as it appears necessary. This tarred belt catches and detains all the females on their upward journey, and prevents them from ascending the tree to lay their eggs. And if kept in order it will very effectually deter and destroy them. When the canker-worm is abundant it is necessary to apply the tarred bandage in October, and let it remain till the last of May, but usually it will be sufficient to use it in the spring. It is probable that a mixture of coal-tar and common tar would be the best application, as it is more offensive, and will not so easily dry and become useless by exposure to the air and sun. Some persons apply the tar directly to the stems of the tree, but this has a very injurious effect upon the trunk. Old India rubber, melted in an iron vessel over a very hot fire, forms a very adhesive fluid which is not affected by exposure to the weather, and is considered, by those who have made use of it, the best substance

for smearing the bandages, as being a more effectual barrier, and seldom or never requiring renewal.

Mr. Jonathan Dennis, Jun., of Portsmouth, Rhode Island, has invented and patented a circular leaden trough, which surrounds the trunk of the tree, and is filled with oil, and stops effectually the ascent of the canker-worm. There appear, however, to be two objections to this trough, as it is frequently used; one, the escape of the oil, if not carefully used, which injures the tree; and the other, the injurious effect of nailing the troughs to the bark or trunk. They should be supported by wedges of wood driven in between the trough and the trunk, and the spaces completely filled up with liquid clay, put on with a brush. The insects must be taken out and the oil renewed from time to time. For districts where the canker-worm greatly abounds, this leaden trough is probably the most permanent and effectual remedy yet employed.

Circular strips of zinc or tin, about four inches wide, passing around the trunk of the tree, the lower end standing out in a flaring manner, resembling a bowl bottom upward, proves an effectual preventive remedy, as the insects cannot pass the lower rim.

Experiments made by the Hon. John Lowell, and Professor Peck, of Massachusetts, lead to a belief that if the ground under trees which suffer from this insect is dug and well pulverized to the depth of five inches, in October, and a good top-dressing of lime applied as far as the branches extend, the canker-worm will there be almost entirely destroyed. The elm, and linden-trees in many places, suffer equally with the Apple from the attacks of the canker-worm.

The bark-louse, a dull white, oval, scale-like insect, about a tenth of an inch long (a species of *coccus*), which sometimes appears in great numbers on the stems of young Apple and Pear trees, and stunts their growth, may be destroyed by a wash of soft soap or the potash solution. The best time to apply these is in the month of June, when the insects are young, or when the tree is devoid of foliage.

The woolly Aphis (*aphis lanigera*), or American blight* is a dreadful enemy of the Apple. It makes its appearance in the form of a minute white down in the crotches and crevices of the branches, which is composed of a great number of very minute woolly lice, that if allowed will increase with fearful rapidity, and produce a sickly and diseased state of the whole tree. Fortunately, this insect is easily destroyed. "This is effected by washing the parts with diluted sulphuric acid, which is formed by mixing three-fourths of an ounce by measure of the sulphuric acid of the shops with seven and a half ounces of water. It should be rubbed into the parts affected by means of a piece of rag tied to a stick, the operator taking care not to let it touch his clothes. After the bark of a tree has been washed with this mixture, the first shower will redissolve it, and convey it into the most minute crevice, so as effectually to destroy all insects that may have escaped."—(*Loudon's Magazine*, ix., p. 336.) It is the more common practice to destroy it by the use of whale-oil, soap or lime wash.

The Apple-worm or Codling moth (*Carpocapsa pomonella* of European writers) is the insect introduced with the Apple-tree from Europe

* It is not a little singular that this insect, which is not indigenous to this country, and is never seen here except where introduced with imported trees, should be called in England the *American* blight. It is the most inveterate enemy of the Apple in the north of France and Germany.

which appears in the early worm-eaten Apples and Pears in the form of a reddish white grub, and causes the fruit to fall prematurely from the trees. The perfect insect is a small moth, the fore-wings gray, with a large round brown spot on the hinder margin. These moths appear in the greatest numbers in the warm evenings of the first of June, and lay their eggs in the eye or blossom-end of the young fruit, especially of the early kinds of Apples and Pears. In a short time these eggs hatch, and the grub burrows its way till it reaches the core; the fruit then ripens prematurely, and drops to the ground. Here the worm leaves the fruit and creeps into the crevices of the bark and hollow of the tree, and spins its cocoon, which usually remains there till the ensuing spring, when the young moth again emerges from it. The readiest way of destroying them, when it can be done conveniently, is to allow swine and poultry to run at large in the orchards when the premature fruit is falling; or otherwise the fruit may be picked up daily and placed where the worms will be killed. It is said that if an old cloth is placed in the crotch of the tree about the time the fruit begins to drop, the Apple-worm will make it a retiring-place, and thousands may be caught and killed from time to time. As the cocoons are deposited chiefly under the old loose bark, the thorough cultivator will take care, by keeping the trunks of his trees smooth, to afford them little harbor; and by scraping and washing the trunks early in the spring, to destroy such as may have already taken up their quarters there.

When the fruit of orchards is much liable to the attacks of this insect, we cannot too much insist on the efficacy of small bonfires lighted in the evening, by which myriads of this and all other moths may be destroyed before they have time to deposit their eggs and cause worm-eaten fruit.

A simple preventive remedy, or method of trapping the insect when in the grub form, has been introduced by Dr. J. P. Trimble, of New Jersey, and consists in twisting a band or rope of hay, long enough to pass three or four times around the body of the tree, and putting it thereon, "securing its ends so as to prevent its becoming loose; as soon as the fruit shows signs of the worms being at work, or from the middle to the last of June. They should be examined every two weeks, as long as the warm weather lasts, the earlier broods of worms becoming moths and producing a second crop. If the orchard is pastured, the bands must of course be put out of the reach of animals. Sometimes it may be necessary to place them around the limbs; in that case the scales of rough bark on the body of the tree below them should be scraped off."

The Blight, which occasionally kills suddenly the ends of the limbs of the apple and the quince, is caused by an insect (*Bostrichus bicaudatus*) which affects the small twigs, by penetrating the wood at the axil of a leaf, and causing it to wither. It is designated the *Twig blight*. Little or no injury results, but it is always well to cut away the injured twig just below the wound.

The Apple-bark Beetle (*Tomicus mali*), described by Fitch, is a small, smooth, black or chestnut-red beetle; the larvæ feed under the bark and then enter the wood, sometimes killing the young tree.

GATHERING AND KEEPING THE FRUIT.

In order to secure soundness and preservation, it is indispensably

necessary that the fruit should be gathered by hand. For winter fruit the gathering is delayed as long as possible, avoiding severe frosts; and the most successful practice with our extensive orchardists is to place the good fruit directly, in a careful manner, in new, tight flour-barrels as soon as gathered from the tree. These barrels should be gently shaken while filling, and the head closely pressed in; they are then placed in a cool, shady exposure, under a shed open to the air, or on the north side of a building, protected by covering of boards over the top, where they remain for a fortnight, or until the cold becomes too severe, when they are carefully transferred to a cool, dry cellar, in which air can be admitted occasionally in brisk weather.

Another method, by some regarded as superior, and tending to keep the fruit longer and better, is to gather carefully, in a dry day, as late as possible in the fall, and place the fruit on a floor, or in open bins, from one foot to sixteen inches in depth. After about a week examine, and if the dampness, commonly called sweat, has passed off, prepare a good clean barrel, and as each fruit is placed in the barrel, see that it is made perfectly dry by wiping it with a soft cloth. As soon as the barrel is filled, head it up securely and place it in a cool, dry cellar.

A cellar for this purpose should be dug in dry, gravelly, or sandy soil, with, if possible, a slope to the north; or, at any rate, with openings on the north side for the admission of air very rarely in weather not excessively cold. Here the barrels should be placed in tiers *on their sides*, and the cellar should be kept as dark as possible. In such a cellar, one of the largest apple-growers in Dutchess County is able to keep the Greening Apple, which, in the fruit-room, usually decays in January, until the 1st of April, in the freshest and finest condition. Some persons place a layer of clean rye-straw between every layer of apples, when packing them in the barrels.

Apples are frequently kept by farmers in pits or ridges in the ground, covered with straw and a layer of earth, in the same manner as potatoes; but it is an inferior method, and the fruit very speedily decays when opened to the air. The English apple-growers lay their fruit in heaps, in cool, dry cellars, and cover them with straw.

Various plans and methods have been designed for the keeping of fruit, few, if any of which are found practically adapted to the general wants of a family. Among those most prominent is the Roberts Fruit House, which is constructed by forming a room inside of an ice-house, having the ice around the sides and overhead; and with an arrangement for drainage below, by means of a pipe beneath the floor, and a condensing-tube inside the chamber or fruit-room.

The Nyce Fruit House is constructed with upright walls, sheeted on the inside and outside with sheet-iron, nailed to upright studding, and having the inside space closely packed with sawdust or chaff. Above the fruit-room is a floor of galvanized iron, on which ice, five to six feet in depth, is packed, and from it a tube or pipe is led off, for the purpose of conveying the water as the ice melts. Below the floor of the fruit-room, which is also of galvanized iron, shavings three feet thick are first laid, and then coated with tar and pitch, to prevent any rise of moisture from below. The temperature is kept at all seasons at just above the freezing-point, and the moisture from the fruit engendered in the room is absorbed by the use of "bittern" from salt-works. This absorption of moisture by means of *chloride of calcium*, or the waste *bittern* of

salt-works, is the principal feature of novelty in this house. But while upon a large scale these fruit-houses are found of value, their adoption involves too much of expense in their first construction, and too great care, to meet the wants of the general fruit-grower. When a fruit-house or room is to be constructed, aside from the cellar, under the barn or dwelling, select a location where complete drainage can be had. Excavate so as that the lower fruit-room will be about two-thirds of its height under ground; lay the outside wall, and then, leaving a space of four inches, lay another inside cement wall. Construct windows so as to give free circulation, and yet keep the room dark by having blinds on the outer side, and sash opening on the inner wall. For winter, double sash will be required. For the upper room, the same principle of forming a double wall, leaving a space of at least four inches, is to be continued, and the arrangement of shelves or drawers through the centre, keeping a passage open all around, may be made to meet the wants for which the room is to be used.

When apples are exported, each fruit in the barrel should be wrapped in clean soft paper, and the barrels should be placed in a dry, airy place between decks.

CIDER.

To make the finest cider, Apples should be chosen which are especially suited to this purpose. The fruit should be gathered about the first of November, and coarse cloths or straw should be laid under the tree, to secure them against bruising when they are shaken from the tree. If the weather is fine the fruit is allowed to lie in heaps in the open air, or in airy sheds or lofts for some time, till it is thoroughly ripened. All immature and rotten fruit should then be rejected, and the remainder ground in the mill as nearly as possible to a uniform mass. This pulp should now remain in the vat from 24 to 48 hours, or even longer if the weather is cool, in order to heighten the color and increase the saccharine principle. It is then put into the press (without wetting the straw), from whence the liquor is strained, through hair-cloth or sieves, into perfectly clean, sweet, sound casks. The casks, with the bung out, are then placed in a cool cellar, or in a sheltered place in the open air. Here the fermentation commences, and as the pomace and froth work out of the bung-hole, the casks must be filled up every day with some of the same pressing, kept in a cask for this purpose. In two or three weeks this rising will cease, when the first fermentation is over, and the bung should at first be put in loosely—then in a day or two driven in tight—leaving a small vent-hole near it, which may also be stopped in a few days after. If the casks are in a cool airy cellar the fermentation will cease in a day or two, and this state may be known by the liquor becoming clear and bright, by the cessation of the discharge of fixed air, and by the thick crust which has collected on the surface. The clear cider should now be drawn off and placed in a clean cask. If the cider, which must be carefully watched in this state, to prevent the fermentation going too far, remains quiet, it may be allowed to stand till spring, and the addition at first of about a gill of finely powdered charcoal to a barrel will secure this end; but if a scum collects on the surface, and the fermentation seems inclined to proceed further, it must be immediately racked again. The vent-spile may now be driven tight, but examined occasionally. In the beginning of March

a final racking should take place, when, should the cider not be perfectly fine, about three-fourths of an ounce of isinglass should be dissolved in the cider and poured in each barrel, which will render it perfectly clear. It may be bottled now, or any period before the blossoming of the Apple or afterwards, late in May. When bottling, fill the bottles within an inch of the bottom of the cork, and allow the bottles to stand an hour before the corks are driven. They should then be sealed and kept in a cool cellar, with clean dry sand up to their necks, or laid on their sides in boxes or bins, with the same between each layer.

VARIETIES.

The varieties of the Apple at the present time are very numerous. The garden of the Horticultural Society of London, which contains the most complete collection of fruit in the world, enumerates now, 1845, about 900 varieties, and nearly 1500 have been tested there. Of these the larger proportion are of course inferior; but it is only by comparison in such an experimental garden that the value of the different varieties for a certain climate can be fully ascertained.

The European Apples generally are, in this climate, inferior to our first-rate native sorts, though many of them are of high merit also with us. There is much confusion in regard to names of Apples, and the variation of fruits from soil, location, or other causes, makes it difficult to identify the kinds, and until they are brought together and fruited on the same ground the certainty of their nomenclature will not be established. New varieties of Apples are constantly springing up in this country from the seed, in favorable soils; and these, when of superior quality, may, as a general rule, be considered much more valuable for orchard culture than foreign sorts, on account of their greater productiveness and longevity. Indeed every State has some fine Apples peculiar to it, and it is therefore impossible in the present state of pomology in this country to give a complete list of the finest Apples of the United States. To do this will require time, and an extended and careful examination of their relative merits collected in one garden. The following descriptions comprise all the finest American and foreign varieties yet known in our gardens.

CLASSIFICATION.

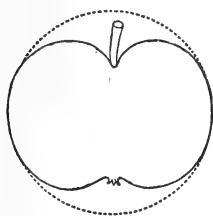
The distinctive characters of fruits have, during the past quarter of a century, become so much intermingled and hybridized that, after carefully studying them, and comparing them with the orders of classification adopted by authors, we have come to the conclusion that no definite order can safely be made to embrace them. Forms, colors, growths, and periods of ripening are so much interwoven and distributed as to defy all arbitrary rules of classification, and hence we have without hesitation abandoned it entirely, substituting in our work the simple order of the alphabet as confined to names, believing such course will prove the most available and useful.

TERMS USED IN DESCRIBING APPLES.

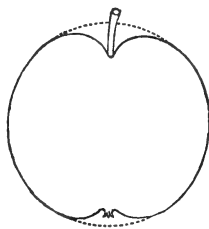
In identifying fruits, not only certain forms and features of the fruit itself are desirable, to have a definite description under plain and intelli-

gible terms, but often the form of the growth of the tree, as well as the color of its young wood, are essential to a clear knowledge for decision. The form and general appearance of a fruit may be changed by soil or climate, but the general habit of growth and color of the young wood is always the same, and in the ensuing pages this latter point has been kept in view and recorded, so far as knowledge could be obtained, respecting valuable varieties.

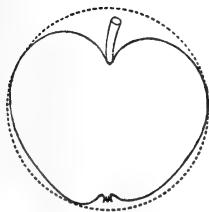
The terms used we have sought to make simple and uniform, and within the comprehension of all, rather than scientific. In describing trees, the character designed to be represented is that of the orchard, or trees in a healthy bearing condition, and the growth is said to be *strong* and *vigorous*, as the Rhode Island Greening, or Baldwin; *vigorous* and *slender*, as the Jonathan or Winesap; *stout* and *short-jointed*, as Jersey Sweet or Primate; *medium* and *vigorous*, as Fameuse, or Maiden's Blush. And for the general form of the tree, the word *upright spreading* is used to designate such as Baldwin; *spreading*, as the Rhode Island Greening; *round-headed*, as in the Early Harvest; *upright*, as with Benoni. In describing fruits, the word *base* means that part of the fruit in which the stem is planted; and *apex*, the blossom end, or crown, as it is sometimes termed. Forms are so much interwoven, as it were, one with another, that we have selected but four as the primary bases on which all others are built, and are subsidiary.



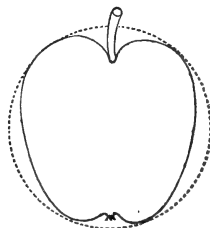
Oblate.



Roundish.



Conical.



Oblong.

These primary forms are *roundish*, *oblate*, *conical*, and *oblong*. The terms *round*, *roundish*, or *globular*, are sometimes used in connection, rather as qualifying expressions than as distinctive; for while the word *roundish*, which indicates the height and diameter as nearly equal, ap-

plies to many fruits, there is no perfectly round or globular apple known.

Oblate indicates the height as much less than diameter. *Conical*, is when the fruit is roundish, having the apex end contracted. *Oblong*, is when the fruit is longer than broad, and having the apex and base of nearly the same breadth. Connected and subsidiary terms, such as *roundish*, *conical*, or *conic*, are when the Apple unites the two primary forms of roundish and conical; or *elongated conical*, or *conic*, when the length is considerably beyond the breadth. *Truncate conic*, is when the fruit is flattened at the apex. *Ribbed*, or *obscurely ribbed*, when the surface has rising lines and channels from apex to base. *Oblique*, is when the fruit presents the appearance as of being one-sided, or when the axis is inclined to one side. *Oblate, not symmetric*, or *sides unequal*, when one side is less than the other. *Corrugated*, having depressed lines, furrows, or wrinkles. *Acute*, when narrowing to a sharp point. *Obtuse*, round or blunt. *Abrupt*, when the depression breaks off suddenly.

In designating the quality of fruits, the terms of the American Pomological Society have been adopted; but it must be remembered that these terms apply strictly and only to the actual quality of the fruit as a dessert sort.

Some varieties classed as best, and which are strictly of the highest quality as fruit, are, nevertheless, unprofitable as varieties to grow, except by the amateur, while many to which the term *very good*, or *very good to best*, is applied, are known to be highly valuable and profitable for market, as well as excellent for the dessert.

APPLES.

ABBOTT.

Origin unknown.

Fruit medium, oblate, inclining to conic, obscurely ribbed, greenish-yellow, shaded and striped with red, few light and brown dots. Stalk long, cavity broad, slightly russeted. Calyx closed. Basin small, uneven. Flesh whitish, crisp, tender, juicy, subacid. Core medium. Very good. December to March.

ABBOTT'S SWEET.

Origin, New Hampshire.

Fruit rather above medium, roundish, conical, yellow, covered with stripes and blotches of red, and many white dots. Flesh white, tender, juicy, and pleasant. Very sweet. Good to very good. December to March.

ABBOTT'S FIVE-SIDED SPICE.

Origin unknown.

Fruit medium, roundish oblate conic, pale yellow, splashed and striped with two shades of red, light-gray dots. Flesh whitish, moderately juicy, mild subacid. Good. Core small. October and November.

ABRAM.

Origin unknown. Grown extensively in Eastern Virginia and North Carolina.

Fruit below medium, roundish, yellow shaded, and splashed with red. Many light dots. Flesh white, tender, subacid. "Good." December to March.

ACKLAM'S RUSSET.

Aclemy Russet.

Origin, Acklam, England.

Fruit medium or below, roundish oblate, pale yellowish green, some gray russet and yellowish-gray specks. Flesh whitish, firm, crisp, subacid. "Good." November to February.

ADAMS.

Originated with James Adams, Union, Penn. Tree quite strong, vigorous, spreading. Young shoots dull reddish brown. Very productive.

Fruit large, roundish, oblate, slightly oblique, yellow, shaded and splashed with red and russet netting. Stalk short. Cavity large, deep. Calyx generally open. Segment long, reflexed. Basin large, abrupt. Flesh yellowish, tender, juicy, slightly aromatic. Very good. January to April.

ADAMS PEARMAIN.

Norfolk Pippin. Matchless.

Origin unknown. Tree a free, healthy grower. Young shoots. Good bearer.

Fruit medium or below, roundish conical, inclining to oblong, pale yellow, shaded, mottled and splashed with red, with many light dots. Flesh yellow, crisp, firm, juicy, rich, brisk, subacid, slightly aromatic. Very good. December to February.

AGATE D'ENCKHUYSEN.

Origin, Enckhuysen, Holland. Tree upright. Young shoots slender, dark reddish.

Fruit small or medium, conical, clear yellowish green, and with many small dots. Calyx large, open, or nearly so. Segments large. Basin deep. Stalk short, stout. Cavity acute, deep. Flesh white, very fine grained, rather firm, juicy, sugary, perfumed. January to March. (Verg.)

AGATHE.

Pomme Double Agathe.

Origin, Limbourg, Holland. Tree vigorous, productive. Fruit medium or large, conical oblate, deep yellow in the shade, bright red-cheek in sun. Many conspicuous gray dots. Flesh yellowish-white,

sometimes slightly rose-colored, tender, juicy, subacid, pleasant. Core large, open. October to February. (An. Pom.)

AGNES'S.

Origin, Lancaster Co., Pa. Fruit rather below medium, oblate, somewhat oblique. Skin yellowish, striped, and shaded with red, and sprinkled with light brown dots. Stalk short and small, inserted in a large cavity. Calyx closed, in a medium basin. Flesh tender, with a spicy, pleasant, subacid flavor. "Good." September, October.

AILES.

Origin, Chester Co., Pa., of vigorous growth, and productive. Fruit large, oblate, yellowish, shaded and striped with red. Stalk short. Cavity narrow. Calyx in a round moderate basin. Flesh yellow, fine, crisp, juicy, with a rich vinous flavor. Good. Highly esteemed for cooking, not in eating till spring, and will keep till midsummer.

ALANT.

Pomme d'Aunee.

Probably of German origin. Tree slender, short jointed. Young shoots reddish-brown.

Fruit medium, truncated conic, greenish-yellow, with indistinct dots. Calyx small. Basin deep. Stalk short. Cavity deep. Flesh yellow, tender, juicy, with a cinnamon aroma. Winter. (Verg.)

ALEXANDER.

Emperor Alexander. Russian Emperor. Aporta.
Victoria, *incorrectly*.

A very large, showy Russian variety. Tree vigorous, spreading, productive. Fruit very large, regularly formed, conical. Skin greenish-yellow, faintly streaked with red on the shaded side, but orange, brilliantly streaked, and marked with bright red in the sun. Calyx large, set in a deep basin. Stalk rather slender, three-fourths of an inch long, planted in a deep cavity. Flesh yellowish-white, crisp, tender, and juicy, with a rather pleasant flavor. Good. October to December.

ALFRISTON.

Lord Gwydr's Newtown Pippin. Oldaker's New
Shepherd's Pippin. Baltimore, *incorrectly*.

A third-rate Apple, valued in England for cooking. Fruit large, roundish, a little ribbed, and rather broadest at the base, pale greenish-yellow. Flesh yellowish-white, crisp, tender, with a tolerable, somewhat acid flavor. Good. October to January.

ALLEMAND.

Pepin d'Or Allemand.

Of Hanoverian origin. Tree a slender grower. Fruit small, conical truncated, pale yellow, with pearl-color spots. Flesh yellow, fine, tender, sugary vinous. Winter. (Virg.)

ALLEN'S CHOICE.

Origin, Pennsylvania. Fruit medium, oblate, sides unequal, yellow, mostly shaded, and striped with red. Flesh white, stained with red, coarse, crisp, juicy, aromatic. "Good." January.

ALLEN'S PIPPIN.

Origin, Chatham, N. C. Tree upright, productive. Fruit medium, oblate, greenish-yellow. Flesh whitish, tender, mild, subacid. Good. October to December.

ALL-HALLOWES.

Origin from seed by Richard H. Graves, Ireland. Fruit medium, roundish, handsome. Flesh tender, juicy, very pleasant. October and November. A new variety, not yet fully tested in this country.

ALL-SUMMER.

Origin, Lancaster Co., Pa. Tree slow growth, spreading, an annual bearer, and very productive. Fruit small, oblate, greenish waxy yellow, slight tinge of red in sun. Stalk slender. Calyx small, closed. Flesh white, tender, pleasant. Almost "very good." July and August.

ALLUM.

Hallum. Rockingham Red.

Much grown in northern N. Carolina; valuable chiefly because of its productiveness and for its keeping properties. Fruit medium, oblate, irregular, deep red. Flesh whitish, crisp, tender, juicy, with a brisk acid flavor. Good. January to April.

ALSACE.

Origin, Alsace Township, Pa. Fruit medium, conical, whitish-yellow, blush in sun. Flesh whitish, juicy, pleasant. "Good." January to March. (Pa. Hort.)

AMELIA.

Of European origin. Fruit medium, roundish, conical, pale yellow, shaded, and obscurely splashed with two shades of crimson. Flesh whitish, firm, tender, juicy, mild subacid. Good. January and February.

AMERICAN BEAUTY.

Sterling Beauty. Beauty of America.

Origin, Sterling, Mass. Tree vigorous, productive, an annual bearer. Wood dull reddish brown, slightly downy.

Fruit large, form roundish, slightly inclining to conic, obscurely ribbed. Color a yellow ground mostly covered with red, which is quite dark in the sun, thickly sprinkled with small light and brown dots. Stalk rather short, somewhat slender. Cavity medium, with russet, the rays of which sometimes extend out over a portion of the fruit. Calyx small,

closed. Segments medium, slightly recurved. Basin medium, uneven. Flesh yellowish, rather compact, tender, juicy, rich mild, subacid, aromatic. Core small. Very good. December to April.

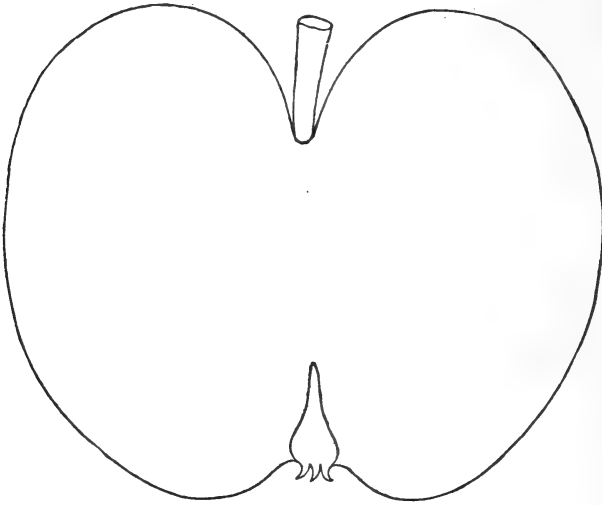
AMERICAN GOLDEN PIPPIN.

Golden Pippin.
Ribbed Pippin.
Golding.

New York Greening.
Newtown Greening.
Golden Apple.

This old Apple is one of our finest American fruits, and seems not to be generally known. It has been cultivated more than fifty years, and is considered one of the most profitable for orchard culture and marketing; it is also a superior Apple for family use. Growth strong, similar to R. I. Greening, but less drooping, making a round, spreading head; does not bear young, but very productive when a little advanced, and a popular fruit where known. Wood dark reddish, downy, with prominent flattened buds.

Fruit medium to large; form roundish oblate, inclining to conic, obscurely ribbed; color yellow, sometimes a brownish blush in sun, thinly



American Golden Pippin.

sprinkled with gray dots, often slightly netted with thin russet. Stalk short, moderately stout. Cavity large, deep. Calyx closed. Segments pointed, slightly recurved. Basin broad, open, slightly corrugated. Flesh yellowish, breaking juicy, rather coarse, rich, aromatic, subacid. Core rather large. Very good. November to February.

AMERICAN GOLDEN RUSSET.

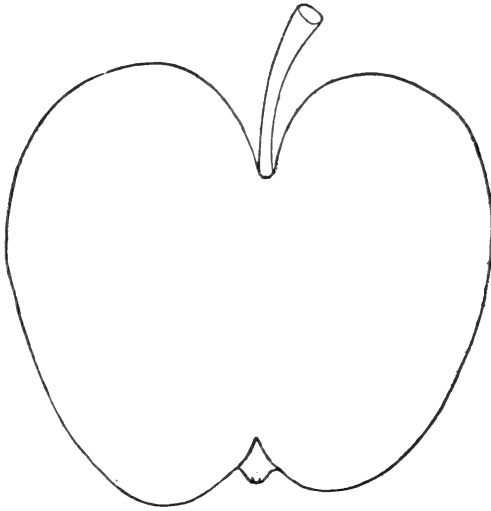
Golden Russet.
Sheep Nose.

Bullock's Pippin.
Little Pearmain.

The American Golden Russet is one of the most delicious and tender

Apples, its flesh resembling more in texture that of a buttery Pear than that of an ordinary Apple. It is widely cultivated at the West and in New England as the Golden Russet, and though neither handsome nor large, is still a universal favorite, from its great productiveness and admirable flavor. The uncouth name of Coxe, *Sheep-nose*, is nearly obsolete, except in New Jersey, and we therefore adopt the present one, to which it is well entitled. The tree is thrifty, with upright shoots, dull reddish grayish brown.

Fruit below medium size, roundish-ovate, dull yellow, sprinkled with a very thin russet. Stalk rather long and slender. Calyx closed, and set in a rather narrow basin. Flesh yellowish, very tender, juicy, with a mild, rich, spicy flavor. Best. October to January.



American Golden Russet.

AMERICAN NONPAREIL.

Origin unknown. Tree vigorous, round, and regular. Fruit medium, oblong conic, yellow, streaked with lively red. Flesh white, crisp, juicy. August. (Coxe.)

AMERICAN PIPPIN.

Stone. Grindstone.

Tree thrifty, spreading, with crooked shoots. Valuable only for its late keeping and for cider.

Fruit of medium size and regular form, oblate, dull red in patches and stripes, on a dull green ground. Flesh white, firm, juicy, with a somewhat brisk, acid flavor. Good. Keeps till June.

AMERICAN PLATE.

Origin unknown. Tree of slow growth, hardy, very productive.

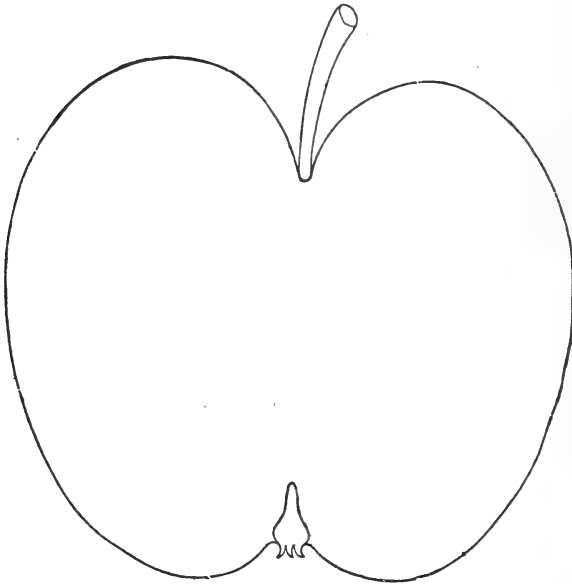
Fruit small, roundish, oblate, greenish, with a brown tinge. Flesh crisp, juicy, pleasant. December and January. (Ron.)

AMERICAN SUMMER PEARMAIN.

Early Summer Pearmain.

A rich, highly-flavored fruit, much esteemed where it is known. It appears to be quite different from the Summer Pearmain (of the English), and is probably a seedling raised from it. It ripens gradually from the tenth of August to the last of September. Tree moderately vigorous, with slender branches, round-headed. Young shoots dull reddish-brown.

Fruit of medium size, oblong, widest at the crown, and tapering slightly to the eye. Skin red, spotted with yellow in the shade, but streaked



American Summer Pearmain.

with livelier red and yellow on the sunny side. Stalk three-fourths of an inch long, and pretty deeply inserted. Eye deeply sunk. Calyx closed. Segments short, erect. Basin abrupt, slightly corrugated. Flesh yellow; remarkably tender, with a rich and pleasant flavor, and often bursts in falling from the tree. Quality best. Core medium.

ANANAS.

Rother Ananas. Bromelia Ananas.

Tree vigorous, productive.

Fruit medium, roundish, yellow, streaked with bright red in the sun, brown spots in shade. Stalk long, slender. Cavity deep, open. Calyx

irregular, open. Basin deep. Flesh white, tender, juicy, subacid, perfumed. Excellent. October. (Al. Pom.)

ANANAS DE LIEGE.

Calville Ananas de Liege. Lutticher Ananas Calville.

Originated in Belgium. Tree moderately vigorous, with long, jointed, dark-reddish shoots.

Fruit large, conical, truncated, greenish, with patches of brown or brownish russet. Calyx large. Basin deep, abrupt. Stalk short. Cavity large and deep. Flesh white, half-fine, firm, a little dry, subacid. Cooking. January, February. (Verg.)

ANGLE.

Medium, roundish, yellow, nearly covered with stripes and splashes of light and dark red, with white dots. Flesh yellow, tender, sweet and good, fair and handsome. Good. First of September.

ANGLO-AMERICAN.

Raised by W. H. Read, Canada West. Tree vigorous and productive.

Fruit medium, oblate, yellowish, marbled, striped and splashed with bright red. Stalk short, rather slender, inserted in a cavity of moderate depth. Calyx closed. Segments long, partly recurved. Flesh white, tender, juicy, sweet, slightly aromatic. Very good. August, September.

ARCHIDUC ANTOINE.

Tree upright, vigorous. Young shoots reddish.

Fruit medium, roundish, yellow green, dotted with inconspicuous small brown dots. Calyx half open. Basin small. Stalk rather long. Cavity deep. Flesh whitish yellow, fine, tender, juicy, subacid. Early winter. (Verg.)

AROMATIC CAROLINA.

Origin, Pomaria, South Carolina. Tree vigorous, hardy, productive.

Fruit large, roundish, oblate, sides unequal, light yellow, slightly streaked with pale red. Flesh moderately firm, crisp, pleasant, mild, subacid, aromatic. Very good. August and September. William Sumner says this is exceedingly tender and melting, and in season all July.

AROMATIC RUSSET.

An English Apple, of vigorous, upright, rather slender growth, hardy and productive.

Fruit medium, roundish, truncate conic, greenish, with a thin gray russet, and a tinge of dull red in the sun. Flesh greenish white, firm, brisk, subacid, aromatic. November, February. (Lind.)

ASHLAND.

Origin, Clermont Co., O. Tree upright, moderate grower, a good and annual bearer.

Fruit medium, approaching conic, truncate, yellowish, striped and shaded with carmine, and considerably sprinkled with large light dots. Stalk small and short, inserted in a large open cavity surrounded by greenish russet. Calyx open, set in a round, abrupt basin. Flesh yellow, tender, juicy, with a very pleasant, mild, subacid flavor. Very good. January to April.

ASHMEAD'S KERNEL.

A variety from Gloucestershire, England. Tree hardy and productive.

Fruit small, roundish, oblate, greenish yellow, with tinge of brownish orange in the sun. Flesh yellowish, firm, crisp, juicy, aromatic. November to May. (Lind.)

ASHMORE.

Red Ashmore.

Origin unknown. Tree vigorous, upright, spreading. Young shoots dull reddish brown.

Fruit medium, form roundish oblate, inclining to conical, generally regular; color whitish yellow, washed or shaded with rich bright red, obscurely splashed, moderately sprinkled with light and gray dots. Skin glossy, smooth. Stalk medium; cavity broad, deep, slightly russeted. Calyx small, finely closed. Segments erect. Basin deep, open, slightly uneven. Flesh white, tender, juicy, mild, subacid. Core small. Very good. October, November.

Striped Ashmore is claimed by some as a distinct variety, differing only in its coloring.

ASTERUS.

D'Asterus. Strifling d'Hiver.

An English variety, valuable for cooking.

Fruit large, roundish, green, with some dull red streaks. Flesh firm, rich, subacid or acid. January to April. (Ron.)

AUGUSTINE.

Large, roundish, conic, yellow, striped with red, sweet and dry. August.

AUGUSTUS PEARMAIN.

An English variety. Fruit small to medium, roundish conical, yellow, with streaks of red, deepest in the sun. Calyx small, closed. Stalk short, and having a knobby attachment. Flesh tender, juicy, vinous, aromatic. November, December. (Hogg.)

AUNT ANNA.

Aunt Anna's Seedling.

Introduced by John Reeder, South Charleston, Ohio. Fruit medium, oblate, yellow, finely striped with red. Flesh yellow, tender, rather dry. (O. P. S. Rep.)

AUNT'S APPLE.

Origin unknown. Tree small, delicate, very productive. Fruit large, oblong, yellow, mostly covered and streaked with a lively red. Flesh yellow, breaking, juicy, not rich. November. (Coxe.)

AUNT HANNAH.

Origin, Essex Co., Mass. Tree of slow growth. Fruit medium, oblate, nearly globular. Skin golden yellowish, sprinkled with russet. Stem short, inserted in a cavity surrounded by russet. Calyx closed. Basin very shallow. Flesh yellow, fine-grained, with a rich peculiar flavor, slightly musky. Good. December to February.

AUNT SUSAN'S FAVORITE.

Originated from seed, by Mrs. Susan Tippet, in Missouri, about twenty-five years since. Tree hardy, thrifty, vigorous, round open head, good and regular bearer. Fruit large, roundish, flattened, light yellow, shaded and striped with shades of deep and light red. Stalk short. Cavity deep. Calyx closed. Flesh white, tender, juicy, mild, subacid. Good. August. (M. S. H. Soc.)

AUSTIN SWEET.

Origin, Mercer Co., Pa. Tree irregular spreading.

Fruit medium, roundish, inclining to conic, pale yellow, sprinkled with a few brown dots and patches of russet. Stalk short and small; cavity, wide open, deep, russeted. Calyx open. Segments short, erect. Basin abrupt, deep, uneven. Flesh white, moderately juicy, rich, sweet. Very good. Core medium. September to December.

AUTUMN GOLDEN PIPPIN.

An old English variety. Tree vigorous. Fruit small, lemon-yellow, little russeted. Flesh rich, and delicious flavor. (Ron.)

AUTUMN PEARMAIN.

Winter Pearmain.

A slow-growing tree, but attains a large size. Branches slender, spreading. Fruit of medium size, roundish, narrowing gradually toward the eye. Color brownish-yellow, mixed with green on the shaded side, but next the sun reddish, blended with yellow, streaked with deeper red, and sprinkled with numerous small brown specks. Stalk short, obliquely planted under a fleshy lip. Calyx small, set in a broad shallow basin, which is sometimes scarcely at all sunk, and obscurely plaited. Flesh pale yellow, crisp, firm, a little dry, but rich and high flavored. Core rather small. Quality very good. October to March.

AUTUMN ROMANITE.

Originated on the farm of Jacob Nicely, Cumberland Co., Pa. Fruit medium, round, somewhat flattened, beautiful red. Flesh yellow, pleasant. September. (A. Pom. S. Rep.)

AUTUMN ROSE.

Roseau d'Automne.

An old English variety. Tree vigorous, spreading. Fruit medium, red on bright rich yellow, russet at the stem. Flesh yellow, rich, juicy, tender, high flavored. September. (Coxe.)

AUTUMNAL SWAAR.

Fall Swaar of West.

Origin unknown. Tree hardy, vigorous, spreading. Fruit large, roundish, conic, orange-yellow, netted with russet, and sprinkled with star-shaped dots. Stalk rather short. Cavity broad, deep, slightly russeted. Calyx small and closed. Basin deep, abrupt, and corrugated. Flesh yellow, juicy, tender, with a pleasant, rich, mild, slightly aromatic subacid flavor. Core small. Very good. September.

AUTUMN SWEET BOUGH.

Late Bough.	Sweet Bellflower.
Fall Bough.	Philadelphia Sweet.
	White Sugar?

Origin unknown. Tree vigorous, upright, round-headed, very productive. One of the very best dessert sweet Apples of its season. Fruit medium, conical, angular, smooth, pale yellow, sprinkled with a few brown dots. Stalk of medium length, rather slender, inserted in a deep narrow cavity. Calyx closed. Segments long. Basin deep, corrugated. Flesh white, very tender, with a sweet, refreshing, vinous flavor. Very good. Last of August to first of October.

AUTUMNAL SWEET SWAAR.

Sweet Swaar. Sweet Golden Pippin.

Origin unknown. Tree vigorous, spreading, productive. Fruit medium, oblate, inclining to conic, deep yellow, with occasional blush in sun. Stalk rather long, slender. Cavity broad and even. Calyx closed. Basin round, open, corrugated. Flesh yellow, tender, moderately juicy, rich and sweet. Core medium. Very good. September, October.

AUTUMN SEEK-NO-FARTHER.

Dr. Watson.

Origin unknown. A variety considerably grown in Indiana, where it is much esteemed. Tree moderately vigorous, spreading, productive. Fruit medium, oblate, sides sometimes unequal. Color greenish-white, shaded, and splashed in the sun with dull crimson. Stalk of medium length. Cavity broad, uneven. Calyx open. Basin large, rather deep. Flesh whitish-yellow, rather firm, juicy, rich, subacid. Core medium. Very good. September, October.

AVERILL.

Wolf's Den.

Origin, Pomfret, Conn. Tree vigorous, productive. Fruit rather large, irregularly conic, angular, greenish yellow, striped and shaded with red. Stem short and stout, inserted in a narrow cavity. Calyx closed, set in a very shallow slightly furrowed basin. Flesh whitish, tender, juicy, with a pleasant subacid flavor. Good. February to June.

BACCOLINUS.

Origin unknown. Tree vigorous, very productive. Fruit small, roundish to roundish oblong, whitish, shaded and splashed with light and dark red. Flesh firm, moderately juicy, vinous. Core small. Good. January to April.

BACHELOR'S BLUSH.

Origin unknown. An annual moderate bearer. Fruit rather large, form oblate depressed, often obscurely ribbed, color yellowish with blush in sun, sprinkled with a few light and gray dots. Stalk very short. Cavity large, deep. Calyx open. Segments short, erect. Basin medium, uneven. Flesh white, tender, crisp, juicy, rather rich, subacid. Core small. Very good. August and September.

BACHELOR'S GLORY.

An English variety. Fruit large, roundish, irregularly ribbed, golden yellow with crimson stripes. Calyx closed. Segments flat. Stalk medium. Cavity deep, funnel-shaped. Flesh yellow, tender, juicy, pleasant. October, November. (Hogg.)

BACKHOUSE'S LORD NELSON.

Origin, York, England. Tree vigorous.

Fruit large, roundish conic, yellowish with dull green shade. Flesh tender. Good. December to January. (Ron.)

BADDOW PIPPIN.

Ribston Pippin, Spring.

An English dessert Apple, valued for its keeping properties. Fruit medium, roundish oblate, ribbed, yellowish green, with dull red in the sun. Stalk short. Calyx large, open. Flesh whitish, firm, crisp, rich vinous. Good. April to May.

BAILEY'S GOLDEN.

Origin, Kennebec Co., Maine. Tree productive. Fruit large, oblong, flattened at base and crown, yellowish, slightly russeted, with a warm cheek. Stalk short, surrounded by russet in a broad deep cavity. Calyx large and open. Basin shallow. Flesh white, with a pleasant subacid flavor. Good. January to March.

BAILEY'S SPICE.

Origin, Plattsburg, N. Y. Tree moderately vigorous and productive. Fruit medium, roundish conical, light yellow, sometimes a faint blush. Stalk rather long, slender. Cavity rather deep. Calyx closed. Basin abrupt, corrugated. Flesh whitish, tender, juicy, lively subacid, slightly aromatic. Core large. Nearly very good. September and October.

BAILEY'S SWEET.

Edgerly's Sweet. *Howard's Sweet.* Paterson's Sweet.

Origin unknown, introduced by J. Edgerly of Perry, Wyoming Co., N. Y. Tree hardy, vigorous, upright, spreading, productive.

This variety is regarded as profitable for all purposes, although perhaps a little too tender skin for shipping long distances. Fruit large, form roundish conical, often approaching oblong, obscurely ribbed, color yellowish, mostly shaded and obscurely striped with red, and thickly sprinkled with minute dots. Stalk short and rather small, inserted in a narrow cavity. Calyx small, closed, set in a narrow irregular basin. Flesh white, tender, not very juicy, almost melting, with a honeyed sweet flavor. Core rather large. Very good. November to March.

BAKER.

Scott.

Origin, Ridgefield, Ct. Tree vigorous, spreading, abundant bearer, young wood reddish brown, with prominent round buds. In its native locality this Apple is highly esteemed both for market and cooking purposes.

Fruit large, roundish oblate, inclining to conic, yellowish, mostly shaded and splashed with shades of crimson. Stalk short, moderately stout. Cavity regular, medium. Calyx closed. Segments slightly recurved. Basin shallow, slightly corrugated. Flesh yellowish, rather coarse, often tinged with crimson near the skin, pleasant subacid. Very good. Core small. October to February.

BAKER'S SWEET.

Winter Golden Sweet. Long Stem Sweet. Late Golden Sweet.

An old fruit of Connecticut and Massachusetts, and much cultivated there. Tree moderately vigorous, slender, somewhat resembling Jonathan. Wood clear reddish brown.

Fruit medium, roundish, of a golden yellow color, with some patches of russet. Stalk long, inserted in a large smooth cavity. Calyx closed. Rather large basin. Flesh yellow, rich, exceedingly saccharine and pleasant. Good to very good. November, December.

BALM.

Origin, Vermont. Tree vigorous, productive.

Fruit medium or above, roundish, oblate conical, yellowish, mostly covered with red. Stalk slender. Flesh whitish, tender, moderately juicy, mild, pleasant. Good. October.

BALDWIN.

Woodpecker.
Felch ?

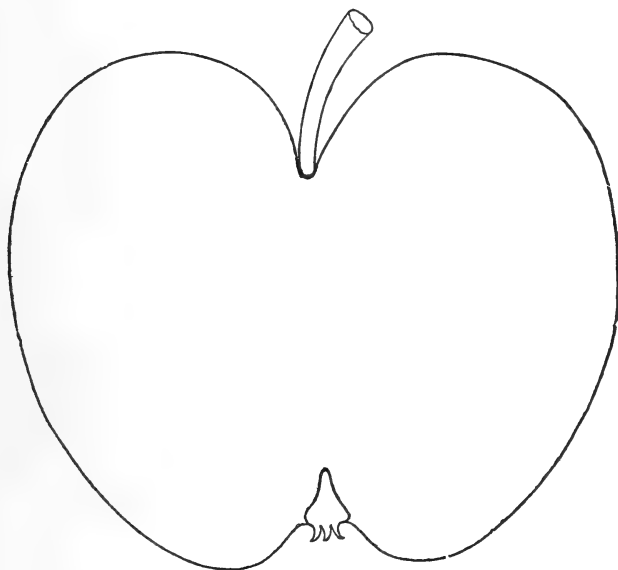
Pecker.
Red Baldwin.

Steele's Red Winter.
Butters.

The Baldwin stands at the head of all New England Apples, and is unquestionably a first-rate fruit in all respects. It is a native of Massachusetts, and is more largely cultivated for the Boston market than any other sort. It bears most abundantly with us, and we have had the satisfaction of raising larger, more beautiful, and highly flavored specimens here than we ever saw in its native region. The Baldwin in flavor and general characteristics evidently belongs to the same family as our Esopus Spitzenberg, and deserves its extensive popularity.

Tree vigorous, upright spreading, productive. Young shoots dull reddish brown.

Fruit large, roundish, and narrowing a little to the eye. Color yellow in the shade, but nearly covered and striped with crimson, red, and orange in the sun, dotted with a few russet dots, and with radiating streaks of russet about the stalk. Calyx closed, and set in a rather narrow plaited basin. Stalk half to three-fourths of an inch long, rather slender for so large a fruit, planted in an even, moderately deep cavity. Flesh



Baldwin.

yellowish white, crisp, with that agreeable mingling of the saccharine and acid which constitutes a rich, high flavor. Very good. The tree is a vigorous upright grower, and bears most abundantly. Ripe from November to March, but with us is in perfection in January.*

* The Baldwin, like nearly all other varieties of winter fruits, originated in the Northern and Eastern States; when grown in Southern latitudes they become

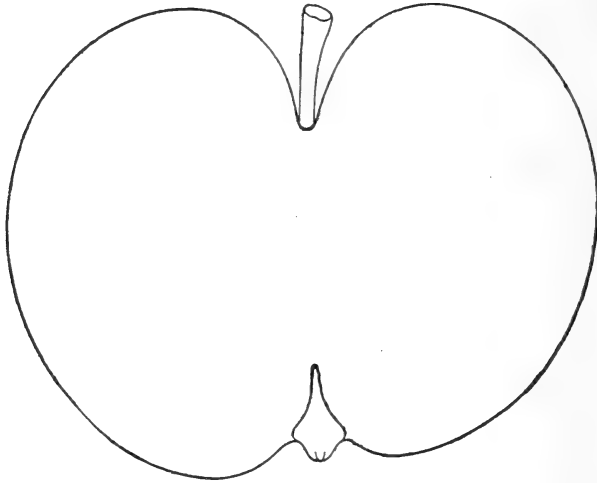
BALDWIN SWEET.

Fruit rather large, roundish, yellow, striped and shaded with red. Flesh yellow, rather compact, sweet and good. Productive. October, January.

BALTIMORE.

Cable's Gilliflower. Baltimore Pippin. Royal Pippin

Origin unknown. Tree healthy, hardy, moderately vigorous, making a round head that when loaded with fruit appears almost drooping. Young shoots slender, dull reddish brown. A profitable variety for market or table use.



Baltimore.

Fruit medium. Form roundish, conical, regular. Color pale yellow, shaded with light red, striped and splashed with dark red, almost purplish, having a grayish appearance of bloom, large light dots, with a dark centre. Stalk short. Cavity medium size, rather thinly russeted. Calyx small, closed. Segments drawn to a point. Basin shallow, nearly smooth. Flesh whitish, tender, juicy, mild, subacid. Core medium. Very good. December to April.

An apple received from Maryland as Baltimore proves identical with Fallawater.

BALTIMORE GREENING.

Origin unknown. Specimens received from John Edgerton, Coal Creek, Iowa.

Fruit large, globular flattened, greenish yellow, with a brownish autumn or early winter sorts, and lose more or less of their sprightliness and good qualities as table fruits. On the other hand, the summer-ripening varieties, originating North, are greatly improved when grown at the South.

blush cheek in sun, some slight stripes of russet, and a few small raised gray dots. Stem short. Cavity broad, open, and deep. Calyx closed, or nearly so. Basin open, deep, slightly furrowed at base. Flesh yellowish, rather coarse, tender, mild, subacid. Very good. Core medium. December. (Elliott's Notes.)

BALTZBY

From Virginia. Tree spreading, productive. Fruit large, oblate, yellowish white, with a faint blush; dots scattered, small, white. Flesh white, firm, somewhat tough, juicy, almost sweet. Good. October.

BAR.

A large, fair apple, slightly tinged with red next the sun. Flesh white, juicy, sweet, and agreeable. Good. An early fall fruit, and keeps well through the winter.

BARBOUR.

Originated with J. Barbour, Lancaster Co., Pa. Fruit medium roundish, oblate, inclining to conical, mottled, and striped with red of different hues on a grayish ground, with numerous gray specks. Flesh yellowish, white, tender, juicy, flavor pleasant. Quality very good. (Pa. Rep.)

BARCELONA PEARMAIN.

Speckled Golden Reinette.	Speckled Pearmain
Polinia Pearmain	Reinette Rousse.
Reinette Rouge.	Reinette des Carmes.
Glace Rouge.	Cassel Reinette.
Kleine Casseler Reinette.	

A foreign variety of uncertain origin, which from its good qualities there, has evidently been widely grown under many names. Tree hardy and productive.

Fruit medium, roundish oblong, pale yellow, mostly covered with red, and many star-like russet specks. Flesh yellowish white, firm, crisp, rich, aromatic, subacid. November to March.

BARCHARD'S SEEDLING.

An English variety, valuable for kitchen use. Fruit medium, roundish oblate, yellow striped with red. Flesh white, sugary. October. (L. H. S.)

BARNHAM'S SWEET

Origin, Connecticut. Fruit medium, roundish, pale yellow, rough, russet. Flesh yellowish, rather dry, rich, sweet. Good for baking. November, December.

BARNHILT.

American, small, conical, yellow, striped with red. Flesh white, tough, dry. October, November.

BARK APPLE

Originated with the Messrs. Ronalds, England, and there regarded valuable for culinary use. Fruit medium, roundish conical, greenish yellow, blush in sun, some russet. Flesh firm, crisp, juicy acid. November to February. (Hogg.)

BARRE.

Colville Barre.

Origin unknown. Introduced from Angers in 1848. Fruit large, roundish conical, yellow, with spots or patches of greenish. Flesh yellowish white, juicy, acid. December. (An. Tom.)

BARRETT.

Origin, Kensington, Conn. Fruit medium to large, conic, yellow, striped and splashed with carmine. Flesh yellow, juicy, tender, with a very pleasant vinous aromatic flavor, almost sweet. Good. January to March.

BARS.

Origin, Rhode Island. Fruit rather large, round, pale yellow, marbled, and nearly covered with red and a few russet spots. Stalk long, slender. Cavity small. Calyx closed. Segment slightly recurved. Basin medium, furrowed. Flesh whitish, tender, juicy, mild, subacid. Core small. Very good. September.

BARTLETT.

Origin unknown. Fruit large, roundish, ribbed, striped and splashed with bright red on yellow. Flesh whitish, mild subacid. Good. (Count. Gent.)

BARTON.

Originated with Michael Aikman, in the township of Barton, C. W. Fruit medium, oblate, slightly conic, light yellow, with light red cheek. Stalk short. Cavity even. Calyx small, regular. Basin medium. Flesh white, fine-grained, tender, juicy, mild, subacid. Core small. Very good. September October. A new variety promising of value for dessert. (Tat. Mss.)

BARTON'S INCOMPARABLE.

An English variety, regarded abroad as of the highest excellence for the dessert. Tree healthy and productive. Fruit below medium, roundish conical, five ribbed, yellowish green, with patches and specks of russet, orange in sun. Flesh yellowish white, crisp, juicy, sprightly, vinous. October to February. (Hogg.)

BAUMAN'S REINETTE.

Reinette Bauman.

Of Flemish origin, introduced and named by Van Mons. Fruit medium, roundish oblate, yellowish green, with numerous distinct brown dots. Flesh yellowish white, fine, firm, sugary, perfumed. January. (L. H. S.)

BAXTER'S PEARMAIN.

From Norfolk, England. Tree hardy, vigorous, productive. Fruit large, roundish, elongated conical, pale green, with shades and streaks of red in the sun. Flesh yellowish, firm, brisk, sprightly subacid. Valuable for all purposes. November to March. (Hogg.)

BEACHEMWELL SEEDLING.

Motteux's Seedling.

From Norfolk, England. Tree hardy, vigorous, productive. Fruit below medium, roundish, yellowish, with faint stripes and splashes of red, brown patches. Calyx and stalk prominent. Flesh yellowish white, tender, brisk, subacid. December to March. (Ron.)

BEADELL.

Hanover Seedling.

Originated on the farm of Edward Beadell, Westchester Co., N. Y. Tree strong, vigorous, spreading, good bearer. Fruit resembles the McLellan in form, color, size, and similar in flavor. Good to very good. Ripe in October.

BEAN SWEET.

Originally sent out by Judge Buel. Fruit medium, oblong rounded, nearly white. Flesh crisp, juicy. October to March. Baking. (Elliott.)

BEAR SWEET.

Origin unknown. Fruit medium, roundish, conical, yellowish, shaded and splashed with red. Flesh moderately tender, juicy, pleasant, sweet. Good for cooking. November.

BEAU.

Distributed by Judge Buel. Fruit large, roundish, oblate, yellowish green, with blush in sun, and white dots. Flesh white, crisp, juicy, acid. August to October. Culinary. (Ken.)

BEAUTY OF KENT.

A showy English sort for culinary uses. The tree grows very strong and upright, moderately productive.

Fruit very large, roundish, but flat at the base, and narrowing distinctly to the eye, where it is slightly ribbed, smooth, greenish-yellow, marked with large, broken stripes of purplish red. Stalk short, slender, deeply planted in a round, russeted, corrugated cavity. Calyx small, set in a narrow basin. Flesh juicy, crisp, tender, with a simple subacid flavor. Good. October and November.

BEAUTY OF THE WEST.

Western Beauty. Ohio Beauty.
Musgrove's Cooper.

Origin unknown. First sent out and noticed by Judge Buel some

thirty or more years since, and yet but little known. The tree is a strong, vigorous grower, forming a large spreading head, moderately productive. Young wood dull reddish brown.

Fruit large, roundish, oblate, conical, greenish yellow, nearly covered with pale dull red, striped with a darker shade, and dotted with large yellow specks. Stalk short. Calyx large, half open. Flesh greenish-white, not firm, tender, mild, subacid. Good. November to February.

BEDFORDSHIRE FOUNDLING.

Cambridge Pippin.

A large green English Apple, excellent for kitchen use. Fruit large, roundish, obscurely ribbed, deep green, paler at maturity. Flesh yellowish, tender, juicy, with a pleasant, acid flavor. Good. October to February.

BEEFSTEAK.

Garden Apple of some, incorrectly.

Origin, farm of Joel Davis, Amesbury, Mass. Habits similar to Baldwin, very productive.

Fruit medium, oblate, inclining to conical. Sides sometimes unequal. Skin whitish-yellow, shaded and splashed with light and dark red over two-thirds its surface, large areole dots. Stalk medium and slender, often with bracts. Cavity rather large, slightly russeted. Calyx closed. Segments slightly recurved. Basin medium, nearly smooth. Flesh white, crisp, tender, juicy, mild, subacid. Core medium. Very good. October, November.

BEELER'S RUSSET.

Origin unknown. Fruit medium to small, round, truncated, russeted. Flesh yellow, crisp, tender, juicy, subacid, aromatic. November, December. (Warder.)

BELDEN OR RED CHEEK

Origin unknown. Tree vigorous, upright, moderately productive. Fruit large, roundish, conic, greenish-yellow, with patches of russet, sometimes a little bronzed cheek. Flesh yellow, crisp, subacid, pleasant. Good. October, February.

BELDEN SWEET.

Grown in Connecticut, very prolific. Fruit medium, or below, roundish conic, light yellow, with a warm cheek. Stalk medium, in an acute, deep cavity. Calyx closed, in a small basin. Flesh white, tender, juicy, saccharine, with a pleasant, aromatic flavor. Core large. Good. December to March.

BELLE BONDE.

Billy Bond. Belly Bounder.

This variety is somewhat grown in Central New York, and claimed as having originated in France, in 1790, and brought there by one John

Deidens. Tree hardy, vigorous, spreading. Fruit medium, or above, roundish conical, pale-yellow, striped and splashed with red, and with large light dots. Flesh whitish, a little coarse, tender, brisk, subacid. Good for cooking. January and February.

BELLE BONNE.

Winter Belle boon. Winter Belle and Bonne. Rolland.

Fruit large, roundish, flattened, greenish-yellow, with a few reddish streaks in the sun. Flesh firm, juicy. October to January. Culinary. (Hogg.)

An old variety, first described by Parkinson, in 1629, and which is probably identical with the Belle et Bonne above described.

BELLE D'ANGERS.

Origin in doubt. Fruit large, roundish conical, pale-yellow, splashed and shaded with dull red. Flesh yellow, juicy, crisp, brisk, subacid, aromatic. Core medium. Very good. October.

BELLEGE.

Belledge Pippin.

Origin, Derbyshire, England. A dessert and culinary apple. Fruit below medium, roundish oblate, lemon yellow, tinged with pale brown in sun, many embedded gray dots. Flesh firm, crisp, pleasant, aromatic, acid. October, December. (Lind.)

BELLE ET BONNE.

Tenon Hills.

A large, fine apple, having a great reputation in the vicinity of Hartford, Conn., a vigorous grower and productive. Shoots dull reddish brown.

Fruit very large, roundish oblate, golden yellow, thickly sprinkled with small dots. Stalk short, inserted in a broad, deep cavity, surrounded by thin russet. Calyx closed. Basin moderate and uneven. Flesh yellow, coarse, juicy, with a pleasant, rather rich, subacid flavor. Good. A profitable variety for market. October to March.

BELLE GRIDELINE.

Belle Grisdeline.

An old variety, originated at Norwich, England. Tree healthy, vigorous. Good bearer. Fruit medium, round, regular, yellow, marbled, and washed with lively red, gray russet in sun. Flesh white, crisp, brisk, subacid. November to March. (Hogg.)

BELFLOWER PIPPIN.

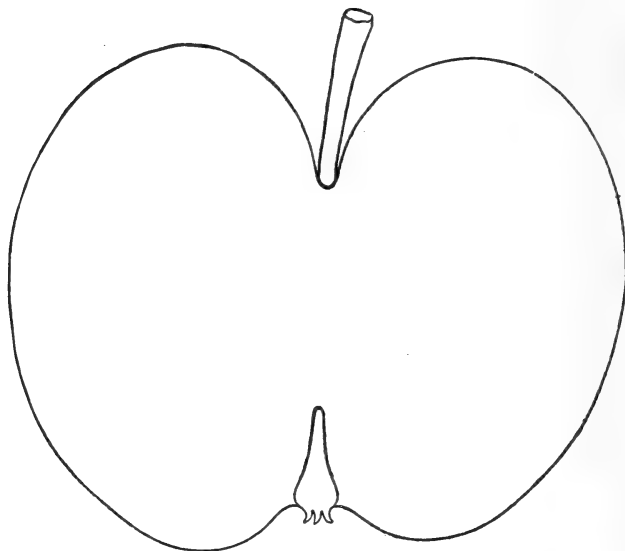
Originated with Joseph Curtis, Edgar Co., Ill. Tree resembles Yellow Bellflower, but more slender in its branches.

Fruit medium, or above, oblate, orange-yellow, sometimes shaded with crimson in the sun, thinly sprinkled with gray dots. Flesh yellowish, crisp, tender, juicy, rather rich, subacid. Core small. Very good. December, January.

BELMONT

Gate.	White Apple.
Mamma Beam.	Waxen of some.
Golden Pippin of some.	Kelley White.

Origin, near Strasburgh, Lancaster Co., Pa., in the garden of Mrs. Beam, at her gate, hence the names "Gate Apple," and "Mamma Beam." It was taken to Ohio by Jacob Neisley, Sen., and became



Belmont.

very popular in Belmont Co., and we retain this name as being the most universal one. Tree vigorous, healthy, and very productive. Wood smooth, light reddish brown.

Fruit medium to large, globular, a little flattened and narrower towards the eye, sometimes oblong. Color light, waxen-yellow, often with a bright vermilion cheek. Stalk short. Cavity generally large. Calyx usually closed. Basin rather deep, corrugated. Flesh yellowish, crisp, tender, juicy, sometimes almost melting, of a mild agreeable flavor. Very good. November to February.

BELPRE KEEPER.

Fruit below medium, roundish, pale greenish-white, some shades of crimson in sun. Flesh greenish, crisp, tender, pleasant, subacid. Good. January to March.

BELVOIR PIPPIN.

Of English origin. Fruit small, roundish oblate, yellow with crimson in sun, russet at the stalk. Flesh pale yellow, firm, crisp, rich brisk acid. November, December. (Lind.)

BELZER.

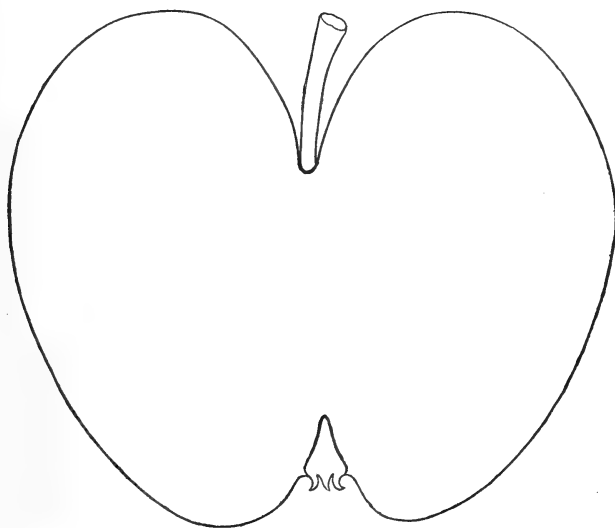
Fruit medium, roundish, yellow striped with red. Flesh white, fine, sub-acid. Good. Middle August. (Hov. Mag.)

BEN DAVIS.

New York Pippin.
Victoria Pippin.
Victoria Red.
Red Pippin.
Kentucky Pippin.

Baltimore Red.
do. Pippin.
do. Red Streak.
Carolina Red Streak.
Funkhouser.

The origin of this apple is unknown. J. S. Downer of Kentucky writes that old trees are there found from which suckers are taken in way of propagating. The tree is very hardy, a free grower, with very



Ben. Davis.

dark reddish brown, slightly grayish young wood, forming an erect round head, bearing early and abundantly. In quality it is not first-rate, but from its early productiveness, habit of blooming late in Spring after late frosts, good size, fair even fruit, keeping and carrying well, it is very popular in all the Southwest and West.

Fruit medium to large. Form roundish, truncated conical, often sides unequal. Color yellowish, almost entirely overspread, splashed, and striped with two shades of red, and dotted sparsely with areole dots. Stalk medium, rather slender. Cavity narrow, deep, russeted.

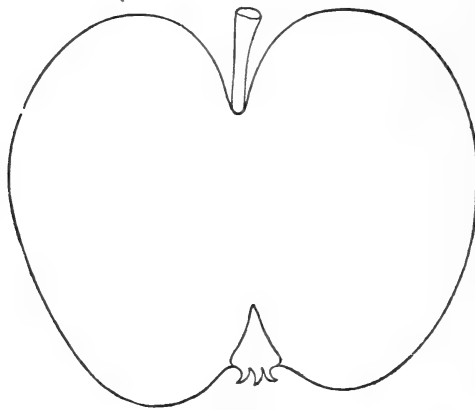
Calyx partially open. Basin wide, abrupt, slightly corrugated. Flesh white, tender, moderately juicy, pleasant, subacid. Core medium to large. Good to very good. December to March.

BENNET.

Origin, Herefordshire, England, where it is valued for cider. Fruit medium, elongated, oblong, conical, dingy russet gray, orange, and muddy red. (Lind.)

BENONI.

This excellent early apple is a native of Dedham, Mass. The tree is of vigorous, upright, spreading habit; hardy and productive; light reddish brown. It is a valuable variety for market or table use.



Benoni.

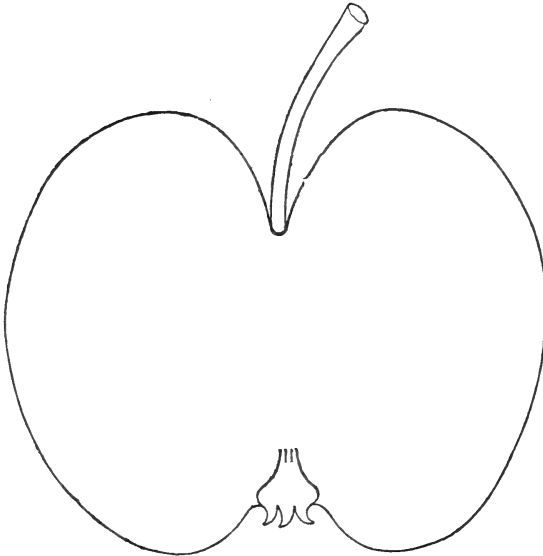
Fruit rather below medium size. Form roundish oblate conical. Color pale yellow, shaded, striped, and marbled with dark crimson, and thinly sprinkled with bright dots. Stalk short, slender. Cavity deep russeted. Calyx closed. Segments persistent, sometimes a little recurved. Basin abrupt, quite deep, somewhat uneven. Flesh yellow, juicy, tender, pleasant, subacid. Core small. Very good. August.

BENTLEY'S SWEET.

Origin unknown. Supposed Virginia. Tree moderately vigorous, hardy, good bearer and keeper, valuable in the Southwest in rich soils. Fruit medium, roundish, flattened at ends, sometimes slightly oblique, and sometimes sides unequal, pale yellowish green, shaded with pale red and moderately sprinkled with light and brown dots. Stalk long, slender, curved. Cavity smooth, deep. Calyx large, closed, or partially open. Segments medium length, erect, sometimes a little recurved. Basin large, deep, corrugated. Flesh fine, whitish, compact, sweet, somewhat honeyed flavor. Core small. Very good. January to May.

BENWELL'S PEARMAIN.

An English variety. Fruit medium, roundish conical, dull green, with stripe of red. Flesh yellowish white, crisp, juicy, brisk, aromatic. December, January. (Hogg.)



Bentley's Sweet.

BERE COURT PIPPIN.

Origin, Berkshire, England. Fruit medium round, slightly oblate, yellowish with stripes of red in sun. Flesh crisp, juicy, brisk, acid. September and October. (Hogg.)

BERGNER.

Originated with G. Bergner, near Hermann, Mo. Tree a rapid grower, with strong branches, somewhat drooping; hardy and an abundant bearer.

Fruit large, roundish oblate. Color a rich yellow ground, mostly covered, striped and splashed with shades of maroon red, with some yellow gray or russet dots. Stalk short. Cavity open, regular, deep. Calyx small, closed. Basin abrupt, deep, slightly plaited at base. Core small. Flesh yellow, crisp, juicy, sprightly, aromatic, quince-like. Very good. February to April.

BESS, POOL.

Best Pool.

Origin, Warwickshire, England. Tree hardy, vigorous, productive.

Fruit above medium, roundish, conical, regular, yellow, washed and striped with clear red. Flesh white, tender, juicy, vinous, subacid. The stem almost always has a fleshy protuberance on one side. November to March. (Hogg.)

BEST BACHE.

Bache's Kernel.

Origin, Herefordshire, England, where it is grown mostly for cider-making. Fruit medium, oblong, yellow, shaded and streaked with pale red. (Hogg.)

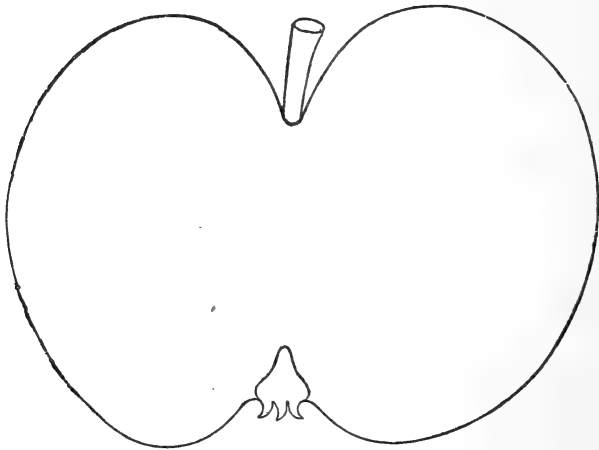
BETSEY.

An English variety, there regarded as a valuable dessert Apple. Fruit small, roundish oblate, conical; pale yellow with brownish russet in sun. Flesh greenish yellow, tender, juicy, rich, and sugary. November to January. (Hogg.)

BETSY'S FANCY.

Origin unknown. A free grower, rather spreading, good bearer.

Fruit scarcely medium, oblate, yellowish, shaded with dull red. Stem short, inserted in a moderate cavity. Calyx closed. Basin shallow and uneven. Flesh compact, tender, pleasant, mild, subacid flavor. Good to very good. December to March.



Bethlemite.

BETHEMITE.

The origin of this fine apple is unknown. It was first brought to notice from the town of Bethlehem, in Ohio, and is undoubtedly a seedling of the Newtown Spitzenberg, which it much resembles. Tree an

upright, strong, stocky, short-jointed grower, with young shoots, dull reddish brown, quite downy. A productive bearer, the fruit keeping and carrying well; very valuable for all purposes.

Fruit, medium, oblate, inclining to conical, regular. Color pale yellow, striped, shaded and splashed with shades of light and dark red nearly over the whole surface, thin grayish tinge, and pretty thickly sprinkled with light and brown dots. Stalk rather short, slender. Cavity large, considerably russeted. Calyx open or partially closed. Segments large and generally erect. Basin large, slightly corrugated. Flesh white, compact, crisp, juicy, rich, mild subacid, slightly aromatic. Core small. Very good. December to March.

BETTER THAN GOOD.

Origin uncertain. Tree thrifty, but rather slender, very productive. Fruit medium, oblate, pale yellow, with a few brown dots. Stalk short, inserted in a broad cavity. Calyx closed. Basin large and open. Flesh yellowish, very tender, juicy, with a mild, pleasant, subacid flavor. Good to very good. November to January.

BEVAN'S FAVORITE.

Origin, Salem, New Jersey, where it is a favorite. Tree vigorous and productive. Fruit medium, oblate, slightly conic, yellow, striped and splashed with red. Flesh white, firm, crisp, subacid. Good. August.

BIGG'S NONSUCH.

Origin, Middlesex, England. Tree hardy and productive. Fruit medium, round, broadest at base, yellow, striped with bright crimson. Flesh yellowish, tender, juicy. Culinary use. October to December. (Hogg.)

BILLY BARKER.

Originated on the farm of Wm. Barker, Wake Co., N. C. Tree upright grower and good bearer. Fruit large, green, oval, elongated. Flesh yellowish, juicy, tender, brisk, vinous. August. (Gar. Mon.)

BILLY'S PIPPIN.

Fruit large, round ovate, smooth, shaded and indistinctly striped with rich red on yellow. Flesh subacid. Very good. (Coun. Gent.)

BIRMINGHAM.

Of moderate growth, productive. Fruit medium, obliquely oblate, yellow, sprinkled with a few whitish dots. Stalk long, slender, in a broad, deep cavity. Calyx closed, in a large corrugated basin. Flesh yellowish, tender, rather acid, good for cooking. September.

BIRMINGHAM PIPPIN.

Grumas Pippin.	Stone Pippin.
Brummage Pippin.	Grummage Pippin.

Tree of small growth, with short, stout shoots, productive. Fruit small, roundish flattened, dingy yellow, with gray russet, especially

russeted at base. Flesh greenish, crisp, juicy, brisk, pleasant. January to June. (Lind.)

BISCHOFF'S REINETTE.

Fruit medium, roundish conical, lemon yellow, with marblings of russet. Flesh whitish-yellow, juicy, sugary, vinous, aromatic. November to March. (Hogg.)

BISHOP'S BOURNE.

Received from C. C. Hamilton, Cornwallis, Nova Scotia. Fruit medium, roundish conical, pale yellow, shaded, and obscurely splashed and striped on the sunny side, few gray and light dots. Stalk medium, slender. Cavity slightly russeted. Calyx partially closed. Segments long, erect. Basin abrupt, deep, corrugated. Flesh white, crisp, tender, juicy, mild, subacid, slightly aromatic. Very good. Core small. November, December.

BLACK COAL.

Welcome. Baltimore Red. Baltimore Red Streak.

Origin unknown. Tree vigorous, very productive. Fruit rather large, roundish, deep red, almost black, with a slight bloom, and many white dots. Flesh white, slightly tinged with red, crisp, agreeable, moderately juicy. Good. Core medium. November to February.

BLACK OXFORD.

Originated in Maine, where it is by many highly esteemed, especially as a good keeper and great bearer.

Fruit medium, roundish oblate, slightly conic, yellow, nearly covered with shades of red, numerous light-colored dots. Flesh whitish, compact, not very juicy, mild subacid. Good. March to May.

BLACK JACK.

Received from W. C. Hampton, Ohio. Fruit medium, oblate, slightly conic, yellowish, mostly overspread with dark rich red, few light gray dots. Flesh whitish-yellow, rather dry, rich, sweet. Good for baking. January, February.

BLACK WARRIOR.

Origin, Alabama. Fruit medium or small, roundish, inclining to conic, regular, greenish, with a few brown dots. Flesh whitish, moderately juicy, rather firm, subacid. good. Core small. November, December.

BLACKSTONE VALLEY SWEET.

Originated in Massachusetts. Tree productive. Fruit medium, oblate, often depressed, inclining to conic, greenish-yellow, some nettings of russet, gray and green dots. Flesh white, fine-grained, sweet, and rich. Good for cooking. August. Core small.

BLACK ANNETTE.

An old variety, considerably grown in some parts of the Eastern States. Tree a good bearer. Fruit medium, small, roundish, dark red. Flesh white, tender, negative in character, pleasant. Good. November, December.

BLACK APPLE.

Small Black. Jersey Black. Black American.

An old variety, described and put out by Coxe, and now found in many sections. The trees are healthy, moderate growers, forming medium-sized, spreading round heads, with drooping limbs. It is a pleasant table fruit, although not of high or rich flavor.

Fruit medium. Form roundish oblate, deep red, with a bloom. Flesh white, sometimes slightly stained with pinkish red. Good. November to February.

BLACK GILLIFLOWER.

Medium size, oblong conical. Skin very dark, dull red. Flesh white, dry, mild, subacid. Good. November to February. Very productive, and some call it a profitable market fruit.

BLAND'S JUBILEE.

Originated in Norwich, England. Fruit large, round, slightly conical, obscurely ribbed, clear yellow, with many large russet dots or patches, and russet at the calyx. Flesh yellowish, tender, crisp, juicy, sugary, perfumed. October to January. (Hogg.)

BLAKE.

Originated in Westbrook, Cumberland Co., Maine. Fruit medium to large, roundish, greenish yellow, quite yellow at maturity. Flesh firm, fine, crisp, juicy, subacid. Good. October to January. (Me. Rep.)

BLAKELY.

Origin, Pawlet, Vermont, on the farm of Mr. Blakely. Vigorous, up right growth, regular bearer.

Fruit large, regularly oblate, slightly conic, yellow, with a sunny cheek thinly sprinkled with reddish dots. Stalk small and short, inserted in a broad cavity of moderate depth. Calyx nearly closed. Basin small and shallow. Flesh tender, juicy, with a very pleasant, mild, subacid flavor. Good. January, March.

BLECKENSDEFFER.

Originated at Zoar, Ohio. Fruit medium, oblate, inclining to conic, yellow, shaded and splashed with two shades of red or crimson. Flesh white, rather firm, tender, juicy, subacid. Hardly good. November to February.

BLEDSOE PIPPIN.

Raised by John Bledsoe, of Carroll Co., Kentucky. Growth moderate, rather spreading, productive, a promising winter Apple for the South.

Fruit very large, regular, roundish, flattened at the base, tapering to the apex, greenish yellow, very obscurely striped. Stalk short. Cavity deep, slightly russeted. Calyx partly closed, in a somewhat furrowed basin. Flesh white, fine texture, crisp, juicy, with a mild, pleasant subacid flavor. Good. December to April. (Ky. Hort. Soc.)

BLENHEIM PIPPIN.

Blenheim.	Blenheim Orange.	Woodstock Pippin.
Northwick Pippin.	Kempster's Pippin.	

An old variety, originated at Woodstock, in Oxfordshire, England. Tree a strong and vigorous grower, a regular and abundant bearer.

Fruit large, roundish oblate, conical, yellowish, becoming deep orange, stained on the sunny side with dull and dark red stripes. Stalk short and stout, in a deep cavity. Calyx large, open, in a deep broad basin. Flesh yellow, breaking, very sweet, pleasant. Good. October, December.

BLINKBONNY.

Blinkbonny Seedling.

Raised by — Cleghorn, Montreal, Canada. Tree vigorous, upright spreading, very productive. Fruit medium or below, roundish oblate, pale whitish yellow. Stalk long, slender. Calyx closed. Flesh white, rather firm, pleasant, subacid. Core small. Good. September.

BLOCKLEY.

Blockley Pippin.

Origin, near Philadelphia. Growth upright, moderate, a good bearer.

Fruit medium or large, roundish oblate. Color fine yellow, sometimes with a faint blush, thinly sprinkled with brown dots. Stalk short, rather stout, inserted in a deep russeted cavity. Calyx partially closed, set in a broad, deep, corrugated basin. Flesh yellowish, compact, rich, sprightly, mild subacid. Good. November to January.

BLONDIN.

Originated with Reuben Ragan, Indiana. Fruit very large, oblate, unequal, greenish yellow, splashed and striped with red, dots large gray. Flesh greenish yellow, tender, juicy. October, November. (Warder.)

BLOOMING ORANGE.

Under this name W. G. Waring, of Centre Co., Pa., has introduced an Apple said to have been brought from Herefordshire, England. We have been unable, from the few specimens examined, to identify it with any known sort. Tree vigorous, with strong, smooth shoots, resembling the Rhode Island Greening in color, but of upright growth.

Fruit large, roundish oblate, inclining to conic, yellowish, striped, splashed, and shaded with dull red, with large whitish and gray dots. Flesh white, juicy, pleasant subacid. Good to very good. Core medium. November and December. This may yet prove to be some known kind but as we have not fruited it ourself, cannot decide.

BLUE MOUNTAIN.

Trout Apple or Forelle. Blauberger.

Introduced by W. G. Waring. Tree hardy, moderate grower, forming a small round head. Young shoots, slender, dark brown.

Fruit rather large, roundish oblate, whitish, with broken splashes and stripes of light red, dotted with few gray dots. Stalk rather short. Calyx small and closed. Basin medium, corrugated. Flesh white, crisp, juicy, brisk subacid. Core large. Good to very good. November to February.

BLUE MOUNTAIN SWEET.

Origin unknown.

Fruit medium size, roundish, slightly oblate, greenish yellow, with a shade of brown. Flesh fine-grained, solid, sweet. Very good. (Count. Gent.)

BLUE PEARMAIN.

Fruit of the largest size, roundish, regularly formed, very slightly conical. Color stripes of dark purplish-red, over a dull ground, and appearing bluish from the white bloom. Flesh yellowish, mild, rather rich, aromatic, and very good. The tree grows strongly, and bears moderate crops. October to February.

BLUFF SWEET.

From the banks of the White River.

Fruit medium to small, round, regular, smooth, green. Flesh greenish white, sweet. Good. July. (Warder.)

BOAS.

Kelter.

A Pennsylvania Apple, introduced by Rev. Mr. Boas, of Berks Co. Tree a strong grower and productive.

Fruit medium, oblate or roundish oblate, pale yellow, shaded and indistinctly splashed and striped with crimson over most of its surface. Stalk short and stout. Cavity medium. Calyx closed or partly open. Basin slightly corrugated. Flesh whitish yellow, fine-grained, juicy, pleasant, brisk subacid. Core small. Very good. January to March.

BOALSBURG.

A seedling of Centre Co., Pa. Large, oblong, inclining to conical, delicately mottled, and striped with red on a yellow ground. Stem short, thick, inserted in a deep acuminate russeted cavity. Basin deep, moderately wide. Flesh yellow, juicy, sprightly. Good. February.

BOHANNAN.

Buchanan.

A Southern fruit introduced by Lewis Sanders, of Kentucky. Tree upright spreading, young shoots, light reddish brown. Good regular bearer.

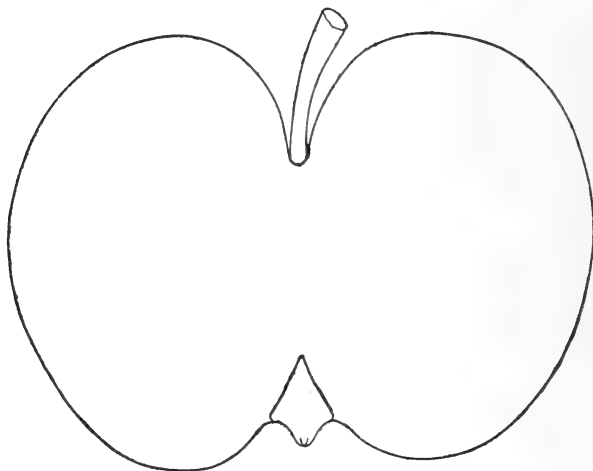
Fruit rather large, roundish oblate, approaching conic, fine yellow, with a bright crimson cheek in the sun. Stalk slender, inserted in a round,

uneven, slightly russeted cavity. Calyx closed in a narrow abrupt basin. Flesh yellow, tender, juicy, with a fine spicy subacid flavor. Core large. Good culinary. September, August.

BONUM.

Magnum Bonum.

Raised by Squire Kinney, Davidson Co., N. C. Tree upright spreading, hardy and vigorous, an early and abundant bearer. Young shoots, smooth reddish gray.



Bonum.

Fruit medium, oblate, yellow, mostly shaded with deep crimson, and indistinct stripes and splashes of dark red, rather thinly sprinkled with pretty large light dots, a portion of them having a dark centre. Stalk long and slender. Cavity medium to large, often with a little green russet. Calyx closed. Segments rather long and sometimes recurved. Basin shallow, slightly corrugated. Flesh white, often stained next the skin, firm, tender, juicy, rich, mild subacid. Core small. Very good. November to December.

BORDEN'S EARLY.

Origin unknown. Tree vigorous, spreading, productive.

Fruit medium, roundish oblate, conical, yellow, striped, and splashed with two shades of red. Flesh yellowish, crisp, juicy, mild subacid. Core large. Good. A desirable cooking apple.

BOROVITSKY.

A Russian Apple of medium size, roundish, angular. Skin pale whitish yellow, faintly striped. Flesh white, firm, subacid. August.

There may be a distinct variety under this name, but, so far as received by me, it has proved to be identical with Duchess of Oldenburg.

BORSBORFFER.

Bursdorff.	King George the Third.
Queen's.	Reinette Batarde.
Edler Winter Borsdorffer.	Bursdorffer.
Garret Pippin.	King.
Le Grand Bohemian Borsdorffer.	Reinette de Misnie.

A small celebrated German Apple.

Fruit roundish oval, narrowing at the eye. Skin pale yellow, with a full red cheek, sprinkled with a little russet. Flesh yellowish white, very firm and crisp, with a rich, brisk, perfumed flavor. November to February.

BORSBORFF OGNON.

Reinette Plate. Zweibel Apfel.

Of German origin. Tree with short, stocky, yellowish-brown shoots, regular roundish head.

Fruit small, greenish yellow, with large, distinct gray spots. Flesh white, firm, subacid, perfumed, rich flavor. Winter. (Verg.)

BONNE VIRGINIE.

A Belgian variety.

Fruit medium, roundish, flattened at base, glossy greenish yellow, with red in the sun. Flesh white, firm, sugary, slightly acid, agreeably perfumed. October. (Alb. Pom.)

BOSSOM.

Originated at Petworth, England.

Fruit large, conical, pale greenish yellow, very much russeted, and with bright red on sunny side. Flesh yellowish, crisp, juicy, sugary, subacid. Valuable as a cooking-apple. November to March. (Lind.)

BOTIGNE.

De Boutigne.

Of Belgic origin. Tree vigorous, upright, with large reddish-brown shoots, downy at the end.

Fruit rather large, oblong conical, yellow, washed over with carmine red, and marbled with spots of gray and black. Flesh yellowish, firm, very juicy, sugary. Core long, irregular. November to March. (Alb. Pom.)

BOTTLE GREENING.

This variety was found near the Vermont and New York State line, and takes its name from a hollow in the original tree, where workmen were accustomed to keeping their bottle. It was introduced to notice and disseminated by Eben Wight, of Dorchester, Mass. Tree a fine grower, vigorous, spreading. Young wood reddish yellow.

Fruit medium, oblate inclining to conic, greenish-yellow, shaded with dull crimson in the sun, a slight bloom, and thinly sprinkled with light dots. Stalk rather short. Cavity broad. Calyx closed. Basin small, corrugated. Flesh white, subacid, almost melting. Core small. Very good. January, February.

BOURASSA.

A foreign variety, succeeds well at the North, apt to shrivel, and does not keep well.

Fruit medium, roundish conic, ribbed, yellowish, rich orange russet on the sunny side. Flesh white, sometimes stained, tender, with a pleasant aromatic flavor. Good. November, December.

BOWYER'S RUSSET.

An English variety. Valuable for desert there in September. Tree healthy and productive.

Fruit small, roundish conical, yellowish, russeted. Flesh yellowish white, crisp, brisk, aromatic. September. (Lind.)

BOWKER.

Tree vigorous, rather spreading, good bearer.

Fruit medium, roundish flattened, slightly conic, pale yellow, tinged with crimson, sparsely covered with brown, and gray dots. Flesh white, tender, juicy, pleasant, mild, subacid. Good. October.

BOWLING'S SWEET.

From Spottsylvania Co., Va. A very vigorous grower and very productive.

Fruit medium, roundish. Color dull red, on a yellow ground. Flesh rich, juicy, sweet, and entirely free from acid. Good. October to January.

BOXFORD.

Fruit medium, oblate. Skin whitish, striped with red. Flesh compact, crisp, juicy, subacid. Good. September, October.

BRADDICK'S NONPAREIL.

Originated at Surrey, England.

Fruit small, roundish conical, or flattened at base, yellowish, with brownish red in the sun, and russet near the calyx. Flesh yellowish, rich, sugary, aromatic. October, December. (Lind.)

BRADLEY'S AUTUMN.

Originated in orchard of Mr. Bradley, Plymouth, Mich. Tree thrifty, with a spreading top, productive.

Fruit large, roundish oval, somewhat ribbed, whitish-yellow, shaded where exposed to the sun with fine crimson, and pretty thickly sprinkled with brown dots. Stalk rather short and small. Cavity uneven, acute. Calyx closed. Segments erect. Basin rather abrupt, furrowed. Flesh white, moderately juicy, brisk, subacid. Core large. Good. Excellent for cooking. October to January.

BRANDYWINE.

Origin unknown.

Fruit above medium, roundish conical, slightly ribbed, a little ob-

lique, yellowish, shaded, splashed, and striped with red over half to two-thirds its surface, many large, light dots. Stalk short and small. Cavity deep. Calyx closed, or partially open. Basin large. Flesh yellowish, crisp, juicy, tender, mild, somewhat rich, subacid, slightly aromatic. Core small. Good to very good. November to February.

BRABANT BELLFLOWER.

Brabant Belle-fleur. Iron Apple.

The Brabant Belle-fleur is a variety from Holland. The habit of the tree is spreading, and it requires to be grafted high to make a good head.

Fruit large, roundish oblong, slightly ribbed. Skin pale yellow, much striped with red. Calyx large, set in a pretty wide, irregular basin. Flesh firm, juicy, with a rich, pleasant, subacid flavor. Good. Valuable for cooking. October to January.

BREEDON PIPPIN.

A variety from Berkshire, England. Tree hardy, slender, productive.

Fruit small, roundish oblate, dull yellow, tinged with orange, becoming red in the sun, with traces of russet. Flesh yellowish, firm, with a vinous brisk flavor. October, November. (Lind.)

BRENNAMAN.

Raised by Mr. Brennaman, Lancaster Co., Pa. Tree vigorous, upright, productive. Young wood short-jointed, reddish-brown, somewhat downy.

Fruit rather above medium size, roundish oblate, yellowish, nearly covered with red stripes, and splashed. Stem short, in a large cavity. Calyx closed in a deep basin. Flesh white, tender, juicy, with a pleasant, subacid flavor. Good. Excellent for cooking. August, September.

BREWER.

From Massachusetts, a good grower, an annual bearer.

Fruit very large, roundish, yellow, with a slight blush. Flesh yellowish, tender, pleasant, mild, subacid. Good. October, November.

BREWER'S PIPPIN.

An English variety.

Fruit medium, roundish, brownish yellow, with red stripes. Flesh white, crisp, tender, subacid. Cooking. November. (L. H. S.)

BRICKLEY SEEDLING.

Of English origin. Tree hardy, productive.

Fruit small, roundish conical, greenish yellow, red when exposed to the sun. Flesh yellowish, firm, rich, sugary. January to April. (Lind.)

BRIGG'S AUBURN.

Origin, Auburn, Me. Tree hardy, vigorous, and productive; fruit large, oblate, somewhat ribbed, whitish yellow, blush in sun, with a few light and gray dots. Flesh white, firm, pleasant, mild, subacid. Core medium. Good. September, October.

BRIDGEWATER PIPPIN.

An old English culinary sort.

Fruit large, roundish, slightly flattened, ribbed, deep yellow, with blush of red in sun and near the stalk. Flesh yellowish, brisk, pleasant. October, December. (Hogg.)

BRILL'S SEEDLING.

A chance seedling of Francis Brill, Newark, N. J. Tree a rapid upright grower, with light-colored shoots.

Fruit large, oblong conical, much ribbed, yellow, moderately sprinkled with gray dots. Skin oily. Stalk rather short. Calyx closed. Basin large, corrugated. Flesh yellowish, tender, juicy, sprightly, subacid. Core very large and open. Good to very good. November. An apple of good promise as a profitable market sort, being large and showy.

BRIMER.

Yoder.

Of Pennsylvania origin.

Fruit medium, oblate inclining to conic, sides sometimes unequal and slightly ribbed, whitish yellow, with a tinge of red in the sun, and thinly sprinkled with gray dots. Flesh whitish, crisp, rather tender, juicy, pleasant, subacid. Good to very good. Core small. February, March.

BRINCKLEY WHITE SWEET.

Unknown origin.

Fruit small, roundish oblate, pale whitish green, dull red on the sunny side, few gray dots. Flesh white, crisp, tender, juicy, sweet, honeyed flavor. Very good. October.

BRINGEWOOD PIPPIN.

Originated with Thomas Andrew Knight, Esq., Herefordshire, England. Tree hardy, but a slender grower.

Fruit small, roundish, rich yellow, dotted and marked with russet.

Flesh yellowish, firm, crisp, sugary, aromatic, dry. October to March. (Lind.)

BRISTOL PEARMAIN.

Origin, Hampshire, England.

Fruit small, oblong, ribbed, dull yellowish green, stripes of crimson and patches of gray russet. Flesh yellow, firm, not juicy or of much value. October to February. (Hogg.)

BRISTOL.

An old variety, much grown in Connecticut many years since. A pleasant but not rich fruit. Tree hardy, rather slender, drooping when in fruit.

Fruit medium or below, roundish, inclining to conic, dark rich crimson red. Flesh very white, often stained under the skin, tender, juicy. Good to very good. Core rather large. January to March.

BRITTLE SWEET.

Origin unknown. Tree moderately vigorous, very productive. This valuable apple is little known; in beauty and quality it may be classed as among the best, and deserves more attention.

Fruit above medium, roundish, approaching conical. Color pale yellow, shaded, splashed and marbled over nearly the entire surface, with shades of light and dark crimson red, many small gray and white dots. Stalk rather short, slender. Cavity regular, broad, moderately deep. Calyx closed. Segments small, often recurved. Basin small corrugated. Flesh yellowish, crisp, tender, juicy with a peculiar honeyed sweet, and slightly aromatic. Core rather large. Very good. October and November.

BROAD-END.

Winter Brooding. Kentish Brooding. Brooding.

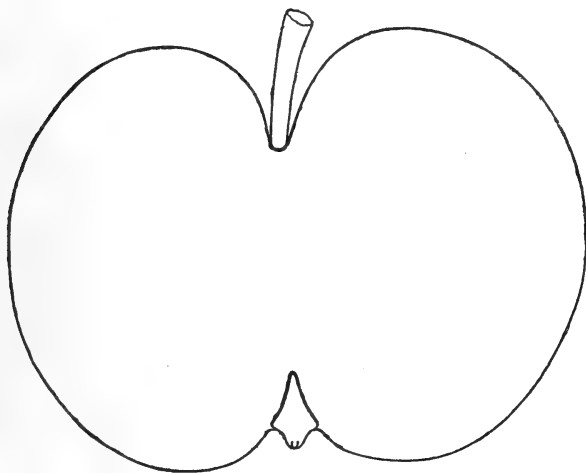
An old English culinary apple, in use from November to Christmas. Tree strong, vigorous, productive.

Fruit large, roundish oblate, yellowish green, red in sun, with patches of russet. Flesh yellowish white, firm, crisp, subacid. (Hogg.)

BROAD-EYE PIPPIN.

Another old English sort for culinary use.

Fruit large, oblate, greenish yellow, tinged with red in the sun. Flesh yellowish white, firm, crisp, brisk, juicy. January. (Hogg.)



Broadwell.

BROADWELL.

Broadwell Sweet.

Originated with Jacob Broadwell, near Cincinnati, O. An extremely valuable sweet apple, either for the table or cooking. Tree vigorous, quite hardy, very spreading, irregular, productive. Young shoots dull reddish brown, downy.

Fruit medium, oblate, somewhat conic. Color clear bright yellow, brownish blush in the sun exposure, with carmine spots. Dots few, greenish, suffused beneath. Stalk rather short. Cavity broad, russeted. Calyx closed, with short segments. Basin abrupt, regular. Flesh whitish, firm, juicy, rich, sweet. Core small. Very good. November to February.

BROOKES.

An old Norman Apple. Tree a free but slender grower, abundant bearer.

Fruit small, conical, golden orange, with bright red next the sun, some russet. Flesh yellowish, firm, rich, sweet, aromatic. October to February. (Ron.)

BRONSON SWEET.

Origin unknown. This variety was many years since carried by a Dr. Bronson from Connecticut to Ohio, without name, and there received its present title. Tree a moderate grower, making a round head.

Fruit medium, oblate, sometimes oblate conic, yellowish, mostly overspread, striped, and splashed with red. Flesh white, compact, moderately juicy, pleasant, sweet. Good. October, November.

BROWN.

A Pennsylvania Apple.

Fruit medium, oblate, slightly ribbed, yellow, striped, splashed and shaded with light and dark crimson over two-thirds the surface. Flesh yellowish, crisp, tender, juicy, rather rich, subacid. Very good. Core small. October, November.

BROWN KENTING.

An English dessert apple.

Fruit above medium, roundish, slightly ribbed, yellowish, with russet marblings and brown russet in the sun. Flesh yellowish, crisp, brisk, aromatic. October to December. (Hogg.)

BROWN'S SUMMER BEAUTY.

Origin, Slough, England. Tree vigorous, good bearer.

Fruit medium, roundish conical, dull greenish yellow, with a red cheek. Flesh delicate, rich, juicy. A fine table apple. September. (Ron.)

BROWNLEE'S RUSSET.

Brownlee's Seedling Russet. Reinette Grise Brownlee's.

An English variety. Tree vigorous.

Fruit large, roundish, flattened greenish, with brownish red next the sun. Flesh greenish white, tender, juicy, sweet, aromatic. Good for cooking or the dessert. From January to May. (Hogg.)

BROWNITE.

Brown's Winter.

Origin, supposed Delaware. Tree a regular grower, with spreading branches.

Fruit below medium, roundish oblong, conical. Flesh tender, crisp, sprightly. Mid-winter. (Coxe.)

BROUGHTON.

A valuable English dessert Apple.

Fruit small, conical, regular, greenish yellow, covered with lively red, becoming deep red in sun, and with many russet dots. Flesh greenish yellow, tender, brisk, rich flavor. October to December. (Hogg.)

BUCHANAN'S PIPPIN.

Buchanan's Seedling.

Raised by Robert Buchanan, Cincinnati, O. Tree vigorous, round-headed, very productive.

Fruit medium, oblate or roundish oblate. Color yellow, splashed and striped with light and dark crimson, in the sun dark crimson maroon, many light conspicuous dots. Stalk short and small. Cavity medium to large, russeted. Calyx partially closed. Segments medium erect, or partially recurved. Basin rather abrupt, slightly corrugated. Flesh yellowish, rather firm, crisp, juicy, pleasant, slightly aromatic, subacid. Core close and small. Very good. January to April.

BUCKINGHAM.

Queen.	Equinately.	Sol. Carter.
Fall Queen.	Byer's.	Winter Queen.
Winter Queen.	Ox-Eye of some in Ky.	Ne Plus Ultra.
Kentucky Queen.	Bachelor.	King.
Lexington Queen.	Merit.	Byer's Red.
Frankfort Queen.	Blackburn.	Red Gloria Mundi of some.
Ladies' Favorite of Tenn.	Henshaw.	Red Horse of some.

The origin of this Apple appears all unknown. It has been long grown in Virginia, Kentucky, and other Southwestern States, and is there a profitable and popular variety, valuable either for market or table use. It matures often in November, but will keep into February. Tree hardy, healthy, moderately vigorous and productive, forming a round-headed spreading tree of medium size. Young shoots rather slender, dull reddish brown.

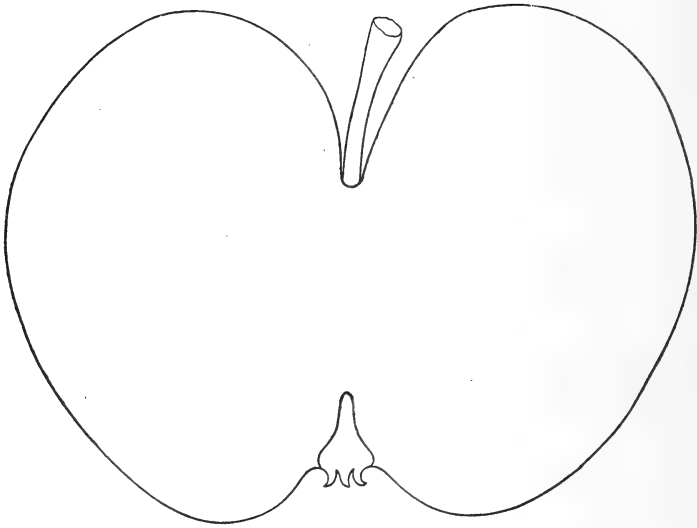
Fruit medium to large. Form oblate, inclining to conic. Color greenish yellow, mostly covered, shaded, striped, and splashed with two shades of crimson or purplish red, many light brown dots. Stalk short. Cavity broad, deep, slightly russeted. Calyx closed. Segments to a point. Basin rather large, deep, slightly corrugated. Flesh yellowish, rather coarse, breaking, tender, juicy, mild, sprightly, subacid. Core small. Very good to best. November to February.

BUCKS COUNTY PIPPIN.

Origin, Bucks Co., Pa. Tree upright, spreading. Young shoot pretty stout, short-jointed, reddish brown, downy, with prominent downy buds.

Fruit rather large, oblate or roundish oblate, oblique, greenish yellow, sometimes with a dull blush in the sun, brown dots. Stalk short. Cavity large, irregular. Calyx closed or partially open. Basin abrupt,

slightly furrowed. Flesh yellowish, crisp, juicy, tender, brisk, subacid
Very good. November to March.



Buckingham.

BUCK MEADOW.

Origin, Norwich, Conn., productive.

Fruit above medium, roundish, lightly conic, yellow, marbled and streaked with red. Flesh yellowish, tender, juicy, with a rather rich, pleasant, vinous flavor. Good. November to March.

BUEL'S FAVORITE.

Spotted Pippin.

Gray Pippin.

Fruit medium, roundish, greenish yellow. Flesh white, firm. November. Hardly good.

BUEL'S SWEET.

Fruit small, roundish conical, yellow, shaded with rich deep red in sun, brown dots. Flesh white, compact, not tender, moderately juicy, not quite good. Winter.

BUFFINGTON'S EARLY.

Origin said to be on the Brandywine, Pa. Tree of good upright growth, bears moderately.

Fruit medium or below, oblate, yellowish white, sometimes a faint blush. Stalk short. Cavity large, slightly russeted. Calyx closed. Basin shallow, slightly corrugated. Flesh tender, juicy, with a sprightly subacid flavor. Good. Middle of August.

BUFF.

Granny Buff.

Origin, Haywood Co., N. C. Tree vigorous, upright, productive.

Fruit large to very large. Form roundish oblate, irregular. Sides unequal. Color whitish yellow, overspread with broad, broken splashes and stripes of dark crimson. Stalk short, rather slender. Cavity large, deep, much russeted. Calyx open or partially closed. Segments medium length, separated and partially recurved. Basin deep, abrupt, slightly corrugated. Flesh white, rather coarse, breaking, subacid. Core medium. Good. December and January.

BULL'S GOLDEN REINETTE.

An English variety. Fruit medium, roundish oblate, yellowish, highly colored with crimson red in the sun. Flesh yellowish, tender, juicy, sweet. December, January. (Hogg.)

BULLETT.

Bartlett. Priestly of some.

An old variety, origin unknown. Fruit medium, oblong truncated, bright red and yellow. Flesh light yellow, subacid. Good. Valuable only as a long keeper. January to June.

BULLETT.

Green Abram. North Carolina Greening.

An old variety of Southern origin, formerly much grown in Virginia, Kentucky, and North Carolina, but now superseded by better sorts. Tree hardy, a slow, rather slender grower, of a drooping habit, productive.

Fruit medium, oblate, oblique, greenish, mostly overspread with stripes and shades of red and grayish russet. Flesh white, firm, moderately juicy, peculiar subacid. Good. Core small, compact. January to June. Valuable only for its long keeping quality.

BURRELL'S RED.

An English Apple of robust growth and productive. Fruit above medium, conical, red, approaching scarlet. Flesh juicy, agreeable acid. November to January. (Ron.)

BURR'S SEEDLING.

Origin, Marlborough, England. Fruit medium roundish, slightly conical, yellow, blush red in the sun, patches and dots of russet. Flesh yellowish, tender, juicy, subacid. October to December. (Hogg.)

BURR'S WINTER SWEET.

Raised by Elisha Burr, Hingham, Mass., a good grower, comes early into bearing, productive.

Fruit medium, oblate inclining to conic, yellow, marbled and striped with light and dark red. Stalk short, inserted in a large cavity. Calyx closed. Basin small. Flesh yellowish, fine grained, tender, juicy,

with a sugary aromatic flavor. Very good. Core small. November to March.

BURST OPEN.

Origin unknown. Fruit medium, oblate, much ribbed, pale whitish yellow, splashed and striped with light and dark crimson, few gray and light dots. Flesh whitish, tender, moderately juicy, mild subacid. Good. Core medium. November.

BURROUGHS GREENING.

Origin, farm of Stephen M. Burroughs, Vergennes, Vt. Good grower, tree spreading, and regular bearer. Medium, nearly globular, inclining to conic. Skin greenish, yellow. Stem long, slender. Calyx closed. Basin furrowed. Flesh solid, juicy, crisp, with a pleasant spicy subacid flavor. Good. January and February.

BUSH'S BEAUTY.

Origin on the farm of Henry Bush, near Sandusky, O. Tree spreading, a yearly abundant bearer. Fruit medium, roundish, flattened at base. Surface irregular, creamy white, striped and splashed with vermilion pink, a little russet toward the stalk. Flesh white, crisp, tender, acid. Good. September, October. Valuable for market.

BUSH.

Origin, farm of Christian Dale, near Boalsburg, Centre Co., Pa. Rather above medium, oblate inclining to conical, light yellow, faint blush in the sun, brown dots. Flesh white, rather firm, mild subacid. Nearly very good. Core small. September.

BUSHWHACKER.

A variety found wild near Nyack, N. J. Fruit large, roundish conical, yellow. Good. February to May.

BUTTER.

From Pennsylvania. Tree vigorous, upright, very productive. Fruit above medium, roundish, yellow, fair. Stalk short. Cavity deep and round. Calyx small, closed. Basin large and open. Flesh whitish, very sweet and rich, valuable for cooking, and esteemed for making apple-butter. September and October.

Another *Butter apple* is described in Elliott as follows:—"Fruit below medium, regular roundish, red marbling and overspreading yellow, few yellow russet dots, russet near and in cavity of stem. Stem long, slender. Cavity narrow, deep. Calyx half closed. Basin abrupt, ribbed. Core medium. Seeds roundish ovate. Flesh yellowish white, tender, sweet. Very good. November to February."

Another *Butter* is thus described by Warder, with Fulkerson's as a synonym:—"Fruit small, very regular, oblate. Surface very smooth and so covered with mixed red as rarely to show the yellow ground color; upon this are laid darker stripes of deep red. Dots minute and inconspicuous. Basin medium, regular, folded. Eye rather large, closed. Cavity acute. Stem of medium thickness, rather long. Core wide; large, plump pointed

seed. Flesh yellow, tender, fine-grained, juicy, with a sweet rich and aromatic flavor. October to January."

There are, besides these, three or four different varieties under the name of Butter, which appears to be a favorite name with some to apply to any good sweet apple for sauce or cooking.

BYAM'S SWEET.

Of unknown origin. An eastern variety.

Fruit medium, oblate, inclining to conic, yellowish, with a shade of red in the sun, gray dots. Flesh whitish, rather tender, juicy, lively, sweet pleasant flavor. Core small. Very good. October.

BYSON WOOD RUSSET.

Byson Wood.

An English Apple, there esteemed for dessert.

Fruit below medium, oblate, greenish yellow, covered with gray russet. Flesh greenish, firm, crisp, juicy, brisk, sugary, aromatic. December to February. (Hogg.)

CABASHEA.

20-Ounce Pippin. King.

Origin unknown. Tree a vigorous grower, poor bearer, and unprofitable. Young shoots very dark reddish brown, downy.

Fruit very large, roundish oblate, conical, yellow striped and splashed with dull red. Flesh whitish, coarse, subacid. Poor. December to February.

CABBAGE-HEAD.

Probable origin, New Jersey. Tree a vigorous grower and good bearer.

Fruit large, oblate conical, golden yellow, with a few gray dots. Flesh yellow, a little coarse, crisp, juicy, brisk, subacid. Good. Core medium. December.

CACHE.

A native of Pulaski Co., Ill. Tree healthy and productive.

Fruit medium, roundish conical, greenish, with a shade of brownish crimson in the sun, gray dots. Flesh white, close-grained, not very juicy, mild subacid. Good to very good. Core small. November.

CAKE APPLE.

Connecticut Cake.

Origin, Connecticut. Medium, oblate, much depressed, yellowish, with a blush. Flesh juicy, tender, pleasant, subacid, almost sweet. Good, sometimes very good. A great keeper, and in some localities considered valuable on account of its productiveness, fair even size, and keeping quality. January to March.

CALEB SWEET.

Of Pennsylvania origin. Tree vigorous and very productive.

Fruit medium, oblate conical, yellow, with a tinge of brown in sun. Flesh yellowish, crisp, rich, sweet. Core small. Good. September.

CALVILLE BLANCHE à COTE'S.

Of French origin. Tree vigorous, productive, with long jointed branches of reddish brown.

Fruit medium, conical, flattened at base, lemon yellow, with red in sun. Flesh white, fine-grained, tender, acid. December to May. (Verg.)

CALVILLE MALINGRE.

Pomme de Malingre, and many other synonyms.

An old variety. Origin in doubt.

Fruit very large, elongated, ribbed, yellow, deep red next the sun, with stripes of darker red. Flesh white, delicate, juicy, agreeable, acid. A culinary apple. From July to April. (Hogg.)

CALVILLE ROUGE DE MICOUD.

This is an old French Apple, said to blossom and get three crops of fruit in a season.

The fruit is large to small in size, mostly covered with red, with a yellowish-white sweet flesh. (Lind.)

CALEF'S SWEET.

Magoun Apple.

Origin, Kingston, N. H.

Fruit large, roundish flattened, yellow, with gray dots and crimson specks. Flesh white, very rich and sweet. November to January. (Maine Report.)

CAMACK'S SWEET.

Camack's Winter Sweet. Grape Vine.

Origin, Macon Co., N. C. Tree a slow grower, with small wiry branches, irregular spreading, an early and abundant bearer.

Fruit medium, roundish, sometimes conical, light yellow green, red in sun. Flesh yellowish, firm, juicy, brisk, pleasant, saccharine. Good. Core small. February.

CAMPBELL.

This new variety is an accidental seedling in the grounds of George W. Campbell, Delaware, O. He describes the tree as a vigorous strong grower, open spreading habit, shoots stout, blunt, leaves large and abundant, a good regular bearer.

Fruit medium, roundish, oblate, a little oblique, pea green, with broken dull red stripes in the sun or toward the stalk end, and with more or less of russet from the stalk cavity; scattering rough distinct dots. Stalk short. Cavity deep, open, narrow, russeted. Calyx closed with broken segments. Basin very deep, slightly furrowed. Flesh greenish white, crisp, breaking, half tender, mild, juicy, subacid, pleasant. Good to very good. Core small. Slightly hollow in centre. Seeds dark blackish, pointed. December to February.

CAMBUSNETHAN PIPPIN.

Winter Red Streak. Watch Apple.

A Scotch variety, medium, roundish, light yellow, striped and shaded with crimson and dark red. Flesh yellowish, juicy, subacid. Good to very good. September, December.

CAMPFIELD.

Newark Sweeting. Sweet Maiden's Blush.

A capital New Jersey cider apple, ranking next to the Harrison. It forms a fine large tree, with straight, spreading limbs, and is very productive. Fine for baking and stock feeding.

Fruit of medium size, roundish, rather flattened. Skin smooth, washed and striped with red, over a greenish-yellow ground. Flesh white, rather dry, firm, rich and sweet. Good. April, May.

CAN.

A very old Apple, originated in Schenectady, N. Y. Tree a good bearer.

Fruit above medium, oblong, yellow, shaded with crimson. Flesh whitish, not juicy, pleasant. Good. November.

CANN.

Winter Sweet Bough. Winter Bough. Sweet Cann.

Tree vigorous and productive.

Fruit large, roundish, conic, greenish yellow, with a dull crimson cheek, slightly sprinkled with brown dots. Flesh white, compact, not very juicy, rich, sweet, and pleasant. Core large. December to March. A good cooking and market apple.

CANADA REINETTE.

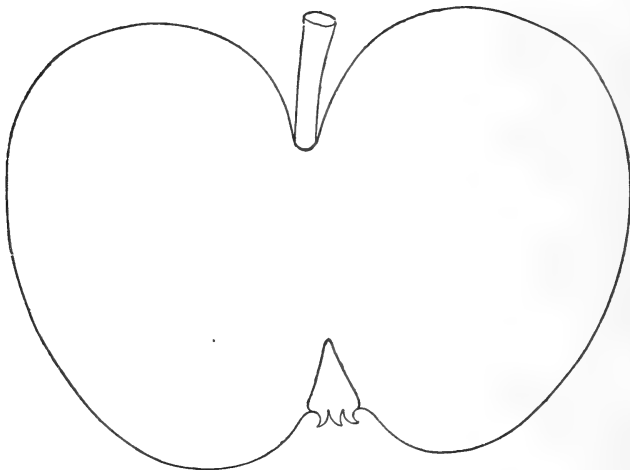
Canadian Reinette.	De Bretagne.
Grosse Reinette d'Angleterre.	Portugal.
Pomme du Caen.	Januarea.
Reinette du Canada Blanche.	Wahr Reinette.
Reinette Grosse du Canada.	Praire Rambour Reinette.
Reinette du Canada à Cortes.	

It is easy to see that the Canada Reinette is a popular and highly esteemed variety in Europe, by the great number of synonyms under which it is known. It is doubtful, notwithstanding its name, whether it is truly of Canadian origin, as Merlet, a French writer, describes the same fruit in the 17th century, and some authors think it was first brought to this continent from Normandy, and carried back under its new name. At any rate, it is a very large and handsome fruit, a good bearer, and of excellent quality in all respects. Wherever grown in this country it sustains its foreign reputation, the tree being of vigorous habit, spreading, open, and productive. Young shoots clear reddish-brown, slightly downy.

Fruit of the largest size, oblate conical, flattened; rather irregular, with projecting ribs; broad at the base, narrowing towards the eye, four inches in diameter, and three deep. Skin greenish-yellow, slightly washed with brown on the sunny side, sprinkled with dots and russet

patches. Stalk short, inserted in a wide hollow. Calyx short and large, set in a rather deep, irregular basin. Flesh nearly white, rather firm, juicy, with a rich, lively, subacid flavor. Very good to best. Ripe in December, and, if picked early in autumn, it will keep till April.

The Canada Reinette Grise is very much like the above, and may prove identical.



Canada Reinette.

CANE CREEK SWEET.

Origin, Burke Co., on Cane Creek, N. C.

Fruit medium, roundish, pale greenish-yellow, shade of brown. Flesh white, rather firm, mild, sweet. Core medium. Good. July, August.

CANNON PEARMAIN.

Tree vigorous, spreading, and productive; much grown in North Carolina, and some portions of the West.

Fruit medium, roundish conic. Color yellow, striped, and marbled with red and dark crimson, with large grayish dots. Stalk short. Cavity small, russeted. Calyx large, open. Basin large, round, deep, and open, corrugated. Flesh yellow, firm, with a rich, brisk, subacid flavor. Very good. December to March.

CANTERBURY REINETTE.

Reinette de Cantorbery.

Tree moderately vigorous.

Fruit large, roundish oblate, conical, greenish-yellow. Stalk long. Cavity deep. Calyx closed. Flesh white, coarse, juicy, sharp, acid. January to March. (Alb. Pom.)

CAPITAL.

Origin, Indiana.

Fruit small, globular, truncate, deep red on greenish yellow. Flesh yellow, breaking, juicy, subacid. Good. December to January. (Warder.)

CAPRON'S PLEASANT.

Fruit medium, or above, roundish oblate, greenish yellow, with a brownish tinge. Stalk rather stout, inserted in an open cavity, slightly russeted. Calyx large, closed, in a medium basin. Flesh yellow, juicy, tender, mild, subacid, and very agreeable. Good. Core small. September to October.

CARAWAY RUSSET.

From England.

Fruit below medium, oblate, pale brown russet, with an orange tinge in sun. Flesh firm, crisp, juicy, sweet. February. (Hogg.)

CABBAGE.

Medium, roundish conic, yellow. Flesh tender, juicy, sweet, without much flavor. September, October.

CARDINAL RED.

Of European origin.

Fruit medium, oblate, inclining to conic; sides unequal; very dark red, almost blackish next the stalk; some light gray dots. Flesh white, rather firm, juicy, sprightly subacid. Good. Core small. January, February.

CAREY'S SEEDLING.

Ohio origin.

Fruit small, roundish, yellow, slight blush in sun. Flesh yellowish white, tender, subacid. Good. October, November.

CARLISLE CODLIN.

A dwarf variety of the old English Codlin. Tree hardy, and abundant bearer.

Fruit above medium, ovate, flattened at base, pale yellow with a few russet specks. Flesh white, tender, crisp, juicy. A good cooking apple from August to September. (Hogg.)

CARMEL SWEET.

Speckled Sweet.

A native of Carmel, Putnam Co., N. Y. Tree vigorous, upright, spreading. Very productive. Young shoots dull reddish brown, smooth.

Fruit medium, oblate, greenish yellow, with a blush, many fine red dots. Flesh white, juicy, tender, sweet, and rich. Very good. October, November.

CARNAHAN'S FAVORITE.

Origin, with Mr. Carnahan, Cincinnati, O. Tree vigorous, produc-

tive. Fruit large, roundish conic. Color yellowish, striped and shaded with red, and much sprinkled with green or russet dots. Flesh fine-grained, juicy, with a very pleasant vinous flavor. Good. December to March.

CARNATION.

Fruit medium size, a delicious subacid apple, fully first-rate, dark-red, splashed with russet. Flesh white, brittle, and very juicy. Both the calyx and stem are sunk in deep depressions. 10th of August. (White's Gard.)

CAROLINE.

Said to have originated near Tremont, O. Tree a strong upright grower and abundant bearer.

Fruit medium, roundish, slightly oblate, pale lemon yellow, brownish blush in the sun. Calyx large. Stalk slender. Flesh white, tender, mild, subacid. Core rather large. Very good. September.

CAROLINE.

Carolina Baldwin.

Origin, premises of A. G. Baldwin, Hanover, N. J. Tree vigorous and productive.

Fruit medium, oblate, yellowish, mostly shaded with maroon, obscurely striped, and splashed with light and dark red, and thickly covered with light dots. Flesh yellowish, crisp, juicy, mild, subacid, rather rich. Very good. Core medium. December to March.

CAROLINE.

From Norfolk, England.

Fruit above middle size, roundish, rich yellow, streaked with red. Flesh firm, brisk juice, high flavor. Cooking. November to February. (Lind.)

CAROLINE AUGUSTE.

Of Belgic origin. Tree vigorous, with upright reddish brown shoots.

Fruit medium, roundish, pale green with spots of brown. Flesh white, tinged with rose on the sunny side, fine acid, with a pine-apple perfume. September. (Verg.)

CAROLINA RED JUNE.

Knight's Red June.
Red June.

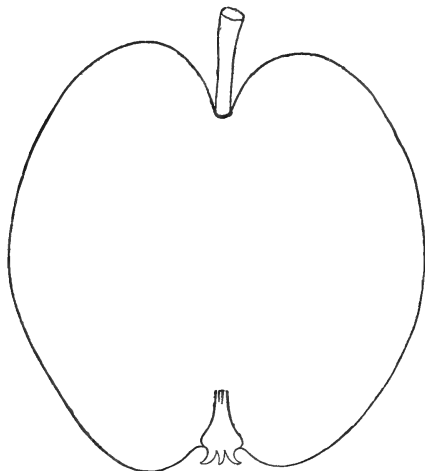
Blush June.
Georgia June.

Wilson's June.

Origin somewhat uncertain, supposed to be Carolina. Tree very vigorous, upright, an early and abundant bearer, much esteemed at the South and Southwest as their best early Apple, ripe a few days after Early Harvest, not equal to it in flavor, but more profitable as an orchard fruit.

Fruit medium or below, oval, irregular, inclining to conic. Skin smooth, nearly the whole surface shaded with deep red, and almost of a purplish hue on the sunny side, and covered with a light bloom. Stalk

variable in length, inserted in a small narrow cavity. Calyx closed. Segments long, reflexed. Basin narrow, plaited. Flesh very white, tender, juicy, with a brisk subacid flavor. Core rather large. Very good.*



Carolina Red June.

CAROLINA SWEET.

Fruit rather large, roundish, a little flattened, yellow, slightly shaded in the sun. Flesh yellow, dry, sweet. Poor. August.

CAROLINA WATSON.

Of Southern origin.

Fruit large, oblate conical, greenish, shaded, splashed and striped with dull red, large light dots, with dark centres. Flesh white, coarse, mild, subacid. Good. August.

CARPENTER.

Originated from a seed of the Belmont, with Charles Carpenter, Kelley Island. Tree a moderate grower, forming a medium-sized round, spreading head.

Fruit medium roundish oblate, yellow, oily surface, shaded with a brownish crimson in sun, and occasional marblings of russet. Flesh yellowish, rather firm, rather rich, pleasant subacid. Good, or almost very good. Core small. Productive. Good keeper. January to March.

* *Carolina Striped June*—(Carolina June). This is generally confounded with the above, and is scarcely distinguishable except that, as it ripens, it becomes striped. One is doubtless a seedling from the other.

CARPENTIN REINETTE.

Kleine Graue Reinette. Der Carpentin.

A German Apple. Tree a free grower and good bearer.

Fruit small, roundish oblong, yellowish green, striped and washed with red, dark red in the sun. Flesh yellowish white, tender, juicy, vinous, aromatic. December to April. (Hogg.)

CARTER.

Royal Pippin.

Origin, farm of Nath. Carter, Leominster, Mass. A vigorous grower and productive.

Fruit above medium, roundish oblate, yellow, slightly shaded, striped, and marbled with red. Stalk short, inserted in a deep cavity. Calyx closed, set in a large basin. Flesh tender, rather coarse, juicy, pleasant, subacid. Good to very good. Core small. October to January.

CARTER'S BLUE.

Lady Fitzpatrick.

This variety originated at Mount Meigs, near Montgomery, Ala. Tree a fine upright grower, an early bearer. Young shoots reddish brown, very close grained.

Fruit large, roundish oblate, greenish, washed and striped with dull red and covered with a blue bloom. Stalk slender. Calyx closed. Flesh yellowish white, crisp, sugary, rich, aromatic. Very good. September to November.

CARVER.

Origin, Norristown, Pa. Tree productive.

Fruit large, roundish, lemon yellow. Stalk short. Calyx small, closed. Flesh yellowish, juicy, tender, vinous, subacid. Good. August.

There is also a Carver Apple from Montgomery Co., which is red, and a winter fruit.

CARY'S SUMMER.

Of unknown origin. Probably an old variety.

Fruit large, round, flattened, rich yellow, splashed with crimson. Flesh yellow, tender, juicy, subacid. Good. Core medium. June to September. (Warder.)

CASE.

An Apple somewhat grown in Connecticut.

Fruit medium, roundish oblate, light and dark red, striped and splashed. Flesh whitish, juicy, tender, crisp, aromatic, pleasant, subacid. Good. November.

CASH SWEET.

Medium size, oblate, conic. Skin whitish, with a blush. Flesh white, sweet, and rather dry. September.

CASTLE MAJOR.

An English cooking Apple.

Fruit medium, roundish oblate, greenish yellow, with white specks. Flesh firm, juicy, brisk, acid. January to April. (Lind.)

CATFACE.

From Kentucky.

Fruit large, conical, truncated, greenish yellow, with streaks of red. Flesh white, tender, brisk, subacid. Good. February, March.

CATHEAD SWEET.

Tree hardy, good bearer.

Fruit large, roundish conic, greenish yellow, slight blush. Flesh white, tender, sweet, not rich. Good. October.

CATLINE.

Gregson Apple.

Origin, Maryland. Tree of slow growth, very productive, much esteemed in the lower part of Delaware. Below medium size, oblate, yellow, bright red cheek, with stripes. Flesh tender, rich, juicy, and sweet. Good. October to December.

There is also a *White* Catline, which is smaller in size, oblate, greenish white, and maturing in September and October. It is juicy, tender, pleasant. Good.

CATSHEAD.

Round Catshead.

Cathead Greening.

A very large Apple, cultivated for drying in some parts of the country, but of little other value except as a cooking apple.

Fruit of the largest size, round, quite smooth, pale green. Flesh tender, with a subacid juice. Good. October and November.

CATO.

Origin, probably Maryland.

Fruit small, oblate, white shaded, and splashed with bright red, deep in sun, few light dots. Flesh white, often stained next the skin, tender, sprightly, subacid. Good. January to March.

CATOOGA.

Corbin.

Cattoogaja.

Cuttugaja.

A Southern variety.

Fruit large, roundish, sides unequal, yellow, with brown dots. Flesh whitish yellow, tender, juicy, subacid. Good. Cooking fruit. November.

CAYWOOD.

Origin, Ulster Co., N. Y. Only valued as a keeper.

Fruit medium, oblate. Skin bright yellow, with a tinge of red on the sunny side. Stalk rather long, in a broad, shallow cavity. Calyx

small, closed. Basin broad and wrinkled. Flesh yellowish, rather firm, pleasant, but not juicy or rich. Good. December, May.

CEDAR FALLS.

A native of Forsyth Co., N. C.

Fruit medium to large, a little oblate in form, deep yellow, nearly covered with purplish red; patch of russet around the stalk. Flesh yellow, firm, aromatic, subacid. November to February. (White.)

CELESTIA.

Originated with L. S. Mote, Miami Co., O. A new variety of good promise as an amateur sort.

Fruit large, form roundish, conical, slightly ribbed. Color pale yellow, moderately sprinkled with gray or brown dots, and sometimes large dots of red. Stalk rather short and slender. Cavity deep, uneven. Calyx closed. Segments long, slender, partially recurved. Basin rather small, furrowed. Flesh yellowish, crisp, tender, juicy, very pleasant, rich, mild, subacid. Core rather large. Very good. October.

CELLINI.

An English culinary Apple.

Fruit medium, roundish oblate, deep yellow, with streaks and mottlings of dark crimson. Stalk short. Cavity slightly russeted. Calyx large, open. Basin corrugated. Flesh white, tender, juicy, brisk, and pleasant. Very good. September, October.

CHALLENGE.

Raised by D. C. Richmond, Sandusky, O. A thrifty grower, and exceedingly productive. Wood grayish brown.

Fruit large, oblate, slightly conic, deep yellow, sprinkled with brownish dots. Stalk rather short. Cavity large, slightly russeted. Calyx closed. Basin deep, corrugated. Flesh yellowish, tender, juicy, sweet. Very good. October to June.

CHAMPAIGNE REINETTE.

Reinette de Champagne.

Soskrieger.

Origin unknown.

Fruit medium, roundish oblate, greenish yellow, with more or less of russet. Flesh yellowish, mild, subacid, vinous. Very good. December to January. (Verg.)

CHANDLER.

Late Chandler.

Of Connecticut origin, where it is a favorite. Tree moderately vigorous, great bearer.

Fruit large, roundish, slightly flattened, and one-sided or angular in its form, obscurely ribbed on its sides, thickly streaked and overspread with dull red with a few streaks of bright red, on a greenish yellow ground, the red sprinkled with light gray dots. Core and seeds small. Flesh greenish white, tender juicy, with a moderately rich, subacid flavor. Good. November to February.

CHANNEY.

A Pennsylvania Apple, valuable mainly as a long keeper. Tree a straggling grower, vigorous and good bearer.

Fruit medium, oblate or roundish oblate, inclining to conic, pale yellow, shaded in the sun with crimson, and sprinkled with light gray dots. Flesh whitish, firm, moderately juicy, with a sprightly subacid flavor. Good to very good. Core small. December to March.

CHAPMAN'S ORANGE.

Fruit small, deep orange, juicy, rich, subacid. October.

CHARLEY'S WINTER.

Raised by H. R. Robey, Fredericksburgh, Va.

Fruit medium or below, oblate inclining to conic, pale yellow, often shaded with crimson in the sun. Flesh yellow, compact, juicy, crisp, brisk subacid. Good. January, February.

CHASE'S SEEDLING.

Origin, Maine.

Fruit medium, roundish, pale yellow, splashed and marbled over nearly the entire surface with red. Flesh white, tender, moderately juicy, mild subacid. Good. September.

CHATTAHOOCHEE.

A Southern variety from the banks of the Chattahoochee River, Ga. Tree vigorous, upright, productive.

Fruit medium or below in size, roundish oblate, oblique, slightly conic, greenish yellow, faint brownish blush in sun. Stalk very short. Cavity large, open, deep, somewhat russeted. Calyx partially open, with short segments, broad, divided, sometimes closed, sometimes erect. Basin deep, broad, abrupt, slightly furrowed. Flesh yellowish white, breaking, crisp, partially tender, subacid, pleasant. Good. Season, December to April.

CHEESE.

Origin, Lewisburgh, Pa. Tree strong, vigorous, spreading, productive annually.

Fruit medium to large, oblate, greenish, mostly overspread and striped with red, small grayish dots. Flesh white, fine-grained, tender, subacid. Good. November to February.

CHEESEBOROUGH RUSSET.

Pumpkin Sweet of some.	Kingsbury Russet.
Forever Pippin.	Cheeseboro.
Howard Russet.	York Russet.

Sweet Russet.

An old fruit of little value, large, conical, green russet. Flesh coarse, dry, mild, subacid, almost sweet. Poor. October, November.

CHELTENHAM.

Calf Pasture.

The Cheltenham is a handsome and popular market variety that origi-

nated at Cheltenham Township, Montgomery Co., Pa., in a field where calves were pastured, and hence the synonym by which it is locally known. It is a moderate grower, but very productive.

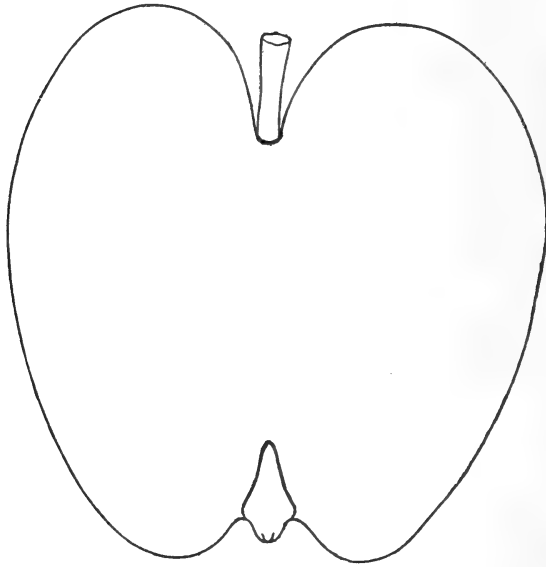
Fruit medium, roundish, striped and marbled with red on a yellow ground. Stalk short. Cavity narrow. Calyx small, closed. Basin deep. Flesh whitish yellow, tender, juicy, pleasant. Good. September.

CHENANGO STRAWBERRY.

Frank.	Sherwood's Favorite.	Jackson Apple.
Buckley.	Strawberry.	Smyrna.

Originated in the town of Lebanon, Madison Co., N. Y. It is an apple pleasant to the taste and much esteemed as a table fruit wherever grown. Tree is vigorous, spreading. Young wood light reddish brown, downy.

Fruit medium, oblong conic or oblong truncated conic, indistinctly



Chenango Strawberry.

ribbed. Color whitish, shaded, splashed and mottled with light and dark crimson over most of the surface, light dots. Stalk rather short small. Cavity acute, somewhat uneven. Calyx closed, or partially open. Segments erect. Basin rather large, abrupt, slightly corrugated. Flesh white, tender, juicy, peculiar mild, subacid. Core rather large. Very good. September and October.

CHENEY.

Originated on the old Cheney farm, South Manchester, Conn. Tree upright, spreading, an early and regular bearer.

Fruit medium, oblate, yellow shaded with rich crimson over the whole surface. Flesh white, tender, juicy, pleasant, subacid, slightly aromatic. Good to very good. September and October.

CHESTATEE.

A Southern fruit of unknown origin. Tree vigorous, upright, spreading. Wood smooth, reddish gray, with very small reddish buds.

Fruit medium, oblate inclining to conic, pale yellow with a slight blush in the sun. Flesh whitish, crisp, juicy, sprightly subacid. Good. November.

CHESTER.

Chester Red Streak.

Origin, Chester Co., Pa.

Fruit medium, oblate, whitish yellow, sometimes with a sunny cheek and sprinkled with carmine dots. Flesh white, tender, juicy, pleasant, subacid, aromatic. Good. November to December.

CHESTER PEARMAIN.

An English dessert Apple. Tree hardy, free grower, attaining a considerable size, good bearer.

Fruit medium, oblate, conical, pale yellow, striped with crimson in the sun, some russet. Flesh yellowish white, tender, juicy. Second-rate. October to December. (Hogg.)

CHESTER SPITZENBERG.

A Pennsylvania Apple. Tree a good grower and productive. Young wood dark dull reddish brown, very stout.

Fruit medium, roundish, inclining to oblate, yellowish, splashed and striped nearly over the whole surface with light and dark red. Flesh yellowish, rather compact, moderately juicy, subacid, slightly aromatic. Good. February to April.

CHESTOA.

Rabbit's Head.

A Southern variety.

Fruit large, elongated conical, irregular at apex end, deep rich yellow, striped, splashed and shaded with red, and with many minute dark specks. Flesh whitish, crisp, juicy, rather rich, vinous, aromatic. Very good. November to March.

CHIEF GOOD.

Summum Bonum.

From Kentucky, near Louisville.

Fruit medium to large, roundish, flattened at base, light yellow, streaked and mottled with red. Flesh white, tender, juicy, subacid, aromatic. September, October. (Elliott.)

CHRISTIANA.

Origin, on the premises of John R. Brinckle, near Wilmington, Del.

Fruit medium, oblate, splashes and stripes of rich crimson red over a

yellow ground. Flesh yellowish white, moderately juicy, sprightly, mild, subacid. Good to very good. November.

CHRISTIE'S PIPPIN.

Origin, Kingston-on-Thames, England. Tree of slender growth, good bearer.

Fruit medium, oblate, lemon yellow, with faint red stripes, russety dots. Flesh yellowish, tender, agreeable, mild subacid. December to February. A dessert apple of the first quality. (Ron.)

CHRIST'S GOLD REINETTE.

Christ's Deutsche GoldreINETTE.

Of German origin.

Fruit above medium, oblate, golden yellow, red cheek in sun, and much cinnamon-colored russet. Flesh fine, juicy, aromatic, vinous. November to May. (Hogg.)

CHRONICAL.

Cotton Apple.

This variety originated on the farm of John Cotton, Putnam Co., Ind. It is a thrifty grower, with a rather upright spreading habit, very hardy, and a moderate annual bearer. It is valued much for properties enabling it to be kept in good condition for two years without extra care.

Fruit medium, roundish, slightly conical, greenish yellow, with splashes and stripes of dull red, few light dots with dark centres. Flesh yellowish white, compact, firm, mild subacid. Core small, close. Good.

CHURCHILL GREENING.

Origin uncertain. Tree vigorous and productive.

Fruit large, oblate, somewhat conic, ribbed, yellowish green, shaded with dull red, and thickly sprinkled with green dots. Flesh yellow, tender, granular, with a brisk, vinous, almost saccharine flavor. Good. December to February.

CHURCH'S LATE SWEET.

A Southern Apple of unknown origin.

Fruit medium, roundish inclining to conic, rich yellow, with occasionally a shade of crimson in the sun. Flesh yellowish, compact, rather rich, mild subacid, almost sweet. Good. February to May.

CITRON DES CARMES.

A French Apple. Fruit small, oblong, light dull brown, dry. Poor. December. (Ron.)

CITRONEN REINETTE.

ReINETTE de Citron.

An Apple of German origin, there regarded as of value for the dessert.

Fruit large, roundish conical, bright yellow, with blush in the sun. Flesh very white, fine-grained, juicy, brisk, sugary, vinous. December to June. (Hogg.)

CLAPPER FLAT.

Flat Apple.

Origin, town of Bethlehem, Albany Co., N. Y. Tree productive.

Fruit above medium, oblate inclining to conic, pale yellow, mostly covered, shaded and splashed with deep red. Flesh yellowish, moderately juicy, tender, pleasant subacid. Good. Highly valued for cooking. September, October.

CLARA PIPPIN.

Origin, Cranford, England.

Fruit small, roundish ovate, orange, with brownish red in the sun. Flesh deep orange, firm, rich, brisk, sugary. December to May. (Hogg.)

CLARKE.

A new variety originated with J. N. Clarke, Naples, N. Y., who states it a strong grower, with an open top, and annually productive.

Fruit medium or above, roundish inclining to conic, slightly angular, pale whitish yellow, shaded, striped and splashed with light and dark crimson, few gray dots. Stalk short, slender. Cavity narrow, rather deep. Calyx small, closed. Segments slightly recurved. Basin small, a little corrugated. Flesh white, tender, juicy, sprightly, vinous, subacid. Very good. October, November.

CLARKE'S DELAWARE.

Originated with John C. Clarke, Maryland. Tree very productive.

Fruit nearly medium size, roundish, inclining to oblong, oblique, smooth, yellow, shaded in the sun with orange red, many gray dots. Flesh whitish, moderately tender, juicy, mild subacid. Almost very good. December to March.

CLARKE PEARMAIN.

Yellow Pearmain.

Columbian Russet.

Gloucester Pearmain.

Golden Pearmain.

From North Carolina, an old variety. Tree of slow growth, very productive.

Fruit medium, roundish oblate, slightly conical, greenish yellow, shaded, striped and marbled with red and russet dots. Stalk very short. Cavity small, slightly russeted. Calyx closed. Basin small. Flesh yellow, rather firm, crisp, rich, subacid. Very good. Core small. December.

CLARKSON.

Originated on the premises of David Clarkson, Plymouth, Wayne Co., Mich. Tree a good grower and bearer.

Fruit above medium, oblate conic, clear white, shaded with crimson in the sun, with light and brown dots. Flesh white, fine-grained, tender, juicy, sharp subacid, slightly aromatic. Core rather large. Good. Valuable for cooking and drying only.

CLAYGATE PEARMAIN.

An English Apple.

Fruit medium, roundish conical, greenish yellow, nearly covered with brownish red. Flesh yellow, tender, rich, aromatic. Good. November to March.

CLAYTON.

Origin, Indiana.

Fruit large, conical, flattened, regular, greenish yellow, covered, striped, and splashed with dull red. Flesh yellow, breaking, subacid. Good. Kitchen and market. January to March. (Warder.)

CLEPINGTON.

An English dessert Apple. Fruit small, round oblate, yellow. September.

CLEY PIPPIN.

Also an English dessert Apple, there counted as of first-rate quality. Fruit small, roundish, yellow. October to March. (H. S. C.)

CLUSTER.

Tree productive.

Fruit small, yellow, oblate, sweet. November.

Another Cluster Apple is small, roundish conical, or oblong conical, greenish white. Flesh white. Poor. December, February.

CLUSTER GOLDEN PIPPIN.

Cluster Pippin. Twin Cluster Pippin. Thickset.

An old variety. A hardy tree, slender grower, good bearer, producing its fruit in clusters, and often with two fruits united or grown together.

Fruit small, round, flattened, yellow, with orange in the sun, and patches of gray russet. Flesh yellowish, firm, crisp, subacid perfumed. November to March. (Hogg.)

CLUSTER PEARMAIN.

Introduced by R. Ragan, of Indiana.

Fruit full medium size, round, flattened, regular, inclined, yellowish green, mixed and striped light red, dots large, gray and yellow, white bloom. Flesh yellowish white, breaking, granular, subacid, aromatic. Good to very good. An autumn fruit, acceptable as a substitute for Rambo. (Warder.)

CLYDE BEAUTY.

Mackie's Clyde Beauty.

Raised by Mr. Mackie, Clyde, Wayne Co., N. Y. Tree vigorous, upright, very productive.

Fruit large, roundish, conic, angular, greenish, oily, sprinkled and mottled with dull red and bright red in the sun. Stalk short, slender, inserted in an acute cavity. Calyx closed, set in a small corrugated basin. Flesh white, tender, juicy, brisk subacid. Good. October to January.

COBHAM.

From Kent, England. Tree hardy, vigorous, and productive.

Fruit medium to large, roundish oblate, dull yellowish green, faint red in the sun, some light russet. Flesh pale yellow, crisp, saccharine, aromatic. November, December. (Lind.)

COBOURG PIPPIN.

An Apple originated in Warwickshire, England.

Fruit small, oblate conical, pea green, with large russet dots. Flesh firm, rich, acid. March. (Ron.)

COCCAGEE.

Cocko Gee.

An Irish Apple, mostly valued for cider.

Fruit medium, roundish, conical, pale yellow. Flesh yellowish, acid. October, December. (Hogg.)

COCKLE PIPPIN.

Nutmeg Cockle.

Nutmeg Pippin.

White Cockle.

Brown Cockle.

A variety from Sussex, England. Tree healthy, hardy. Shoots moderately stout, chestnut colored.

Fruit medium, roundish conical, slightly ribbed, green, with brown russet. Flesh yellowish, firm, crisp, aromatic. Good. January to April.

COCKLIN'S FAVORITE.

Grandfather.

Introduced by Jacob Cocklin, York, Pa. Tree a good upright grower productive.

Fruit below medium, roundish oblate, whitish, thinly shaded with light crimson in the sun, moderately sprinkled with light dots. Stalk medium, very slender. Cavity large, deep, sometimes thinly russeted. Calyx closed. Segments medium, erect, sometimes slightly recurved. Basin abrupt, deep, rather uneven. Flesh white, very tender, juicy, mild, pleasant subacid. Very good. Core small. November.

COCKPIT.

Origin, North of England.

Fruit medium, roundish oblate, truncated, yellow. Flesh tender, brisk, a pleasant apple for table or kitchen. November, December. (Ron.)

COE'S GOLDEN DROP.

An English Apple, the origin of which is in doubt. Tree hardy, free upright grower, and productive.

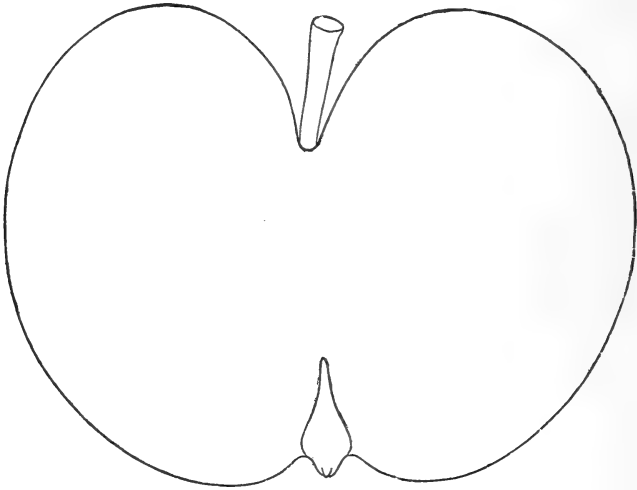
Fruit small, roundish conical, fine yellow, with a shade of crimson in the sun. Flesh yellowish, crisp, juicy, rich, brisk subacid, slightly aromatic. Good to very good. November, February.

COGSWELL.

Cogswell Pearmain.

This excellent Apple originated in the town of Griswold, near Norwich, Ct., on a farm which came into the possession of William Cogswell about the year 1798. The original tree was then about forty or fifty years old. The fruit was first exhibited in 1816 or '18, before the Massachusetts Horticultural Society.

It is an extremely valuable variety wherever grown, either for table or market purposes, a good keeper, and bears carriage to market long distances without apparent injury. Tree a vigorous, upright, spreading grower, an abundant bearer of very regular, even-sized fruit. Young shoots dark reddish brown, somewhat downy.



Cogswell.

Fruit size above medium. Form roundish oblate, regular. Color rich yellow, nearly covered with red, marked and streaked with bright red, pretty thickly sprinkled with areole dots. Stalk short, rather slender. Cavity large, thinly russeted. Calyx small, nearly closed. Basin small, shallow. Flesh yellowish, fine-grained, tender, juicy, scarcely subacid, rich aromatic. Core small. Very good to best. December to March.

COLE.

Scarlet Perfume.

Duling ?

A variety from England, of second quality, but admired for its beauty of appearance.

Fruit medium, roundish oblate, conic, ribbed. Color deep crimson on a yellowish ground, or sometimes entirely red, with a little russet. Stalk medium, woolly, planted in a cavity broad and deep. Calyx large, in a broad basin. Flesh white, rather firm, juicy, yellowish, somewhat rich and agreeable. Nearly very good. September and October.

COLUMBIAN.

Received from Pennsylvania.

Fruit medium, oblate, slightly inclining to conical, yellowish, shaded, splashed and striped with light and dark crimson, few light gray dots. Flesh whitish yellow, tender, juicy, sprightly subacid, slightly aromatic. Very good. Core small. October, November.

COLVERT.

Prussian.

An old variety, of uncertain origin, valued mainly for cooking. Tree a strong grower, and an enormous bearer.

Fruit large, oblate, inclining to conic, greenish yellow, striped and shaded with dull red in sun. Flesh greenish white, tender, brisk subacid. Good. October, November.

CONANT'S RED.

Much cultivated in Southern Ohio.

Fruit full medium, regular, oblate, sometimes nearly round, yellow, obscurely mixed with red, on which are streaks of russet, dots fawn-colored. Flesh yellow, fine-grained, juicy, subacid to sweet, aromatic. September, December. (Warder.)

CONDIT SWEET.

A New Jersey Apple.

Fruit small, roundish, whitish yellow, tinge of brown in the sun. Flesh yellowish, tender, juicy, pleasant, sweet. Good. September.

CONGRESS.

Jackson Apple.

Tyler Apple.

A Massachusetts variety, cultivated in the New England States for half a century or more. Tree very vigorous, spreading, abundant bearer. Fruit valuable mainly for cooking or market.

Fruit large to very large, roundish oblate, slightly conic, yellowish, splashed, striped, and marbled with red. Flesh whitish, coarse, juicy, tender, brisk subacid. Good. Core large. November, December.

CONNECTICUT SUMMER SWEET.

Fruit medium, roundish, yellow and red striped. Flesh yellowish, sweet, tough. August. (Elliott.)

CONNETT'S SWEET.

Tree strong, upright grower, early and abundant bearer.

Fruit large, roundish, flattened, yellow, mostly covered with dark red. Flesh yellow, fine-grained, tender, sweet. Very good. December to March. (Elliott.)

CONTIN REINETTE.

From Ross-shire, Scotland. Tree hardy, a slender grower, and sure bearer.

Fruit medium, roundish, dull yellow, red in the sun. Flesh yellowish, firm, pleasant, acid. October, November. (Hogg.)

CONWAY.

Origin unknown.

Fruit medium, oblate, obscurely ribbed, greenish yellow, with a bronzed cheek in the sun, few brown gray dots and traces of russet. Flesh yellowish, crisp, juicy, vinous, slightly aromatic. Very good. December to April.

COOK'S RED WINTER.

Fruit medium to large, produced by Jacob Cook, Edisto, S. C. Tree vigorous and regular bearer. October to April. (Summer Notes.)

COOLEGE'S FAVORITE.

Said to have originated in Cambridge, Mass. Tree productive.

Fruit medium, roundish conical, deep yellow, splashed and marbled with red, becoming brilliant in the sun, russet at the stem, and with whitish specks over the whole. Stalk long, slender. Cavity deep, broad. Calyx in a shallow plaited basin. Flesh fine-grained, tender, and juicy, pleasant subacid. Very good. September, October. (J. of H.)

COOPER.

Beauty Red.

Lady Washington.

Origin unknown; supposed to be an old Eastern variety, as yet unrecognized. Thrives well at the West, and much esteemed there by many. Growth vigorous, upright, and productive.

Fruit large, roundish oblate, sides unequal. Color greenish yellow, with a few stripes and splashes of bright red, thickly sprinkled with brown dots. Flesh tender, juicy, vinous, with a pleasant but not high flavor. Good. October to December.

COOPER'S EARLY WHITE.

Grown in Illinois and other Western States, where it is regarded by many as productive and profitable.

Fruit medium, roundish, little flattened, pale yellow with faint blush, tinge of green at the stem. Flesh white, crisp, sprightly. September and October. (Elliott.)

COOPER'S MARKET.

Cooper's Redling.

Rigley.

Redling?

Tree hardy, vigorous, upright, with long slender branches, very productive and a late keeper. Valuable for market in New Jersey.

Fruit medium, oblate conic, yellowish, shaded with red and striped with crimson. Stalk short. Cavity deep, narrow. Calyx closed. Basin small. Flesh white, tender, with a brisk subacid flavor. Good. December to May.

COOPER'S RUSSETING.

Originated in Gloucester Co., N. J. Tree irregular in form, healthy grower, abundant bearer.

Fruit small, oblong, conical, pale yellow mixed with russet. Flesh rich, sweet, dry. Valuable for cooking or for cider. October to December.

CORLIE'S SWEET.

Origin on the farm of A. Corlies, Shrewsbury, New Jersey. Tree vigorous, round-headed, great bearer.

Fruit medium, roundish, conical, whitish yellow, light blush in sun. Flesh white, firm, moderately juicy, pleasant sweet, fine for cooking. Hardly good. September, November.

CORNELL'S FANCY.

Cornell's Favorite.

From Pennsylvania. Tree vigorous and productive.

Fruit medium, oblong, conical. Color waxen yellow, shaded and splashed with crimson. Stalk of medium length. Cavity rather large. Calyx closed, abrupt, corrugated. Flesh white, tender, crisp, juicy, with a pleasant subacid flavor. Core medium or large. Very good.

CORNFIELD.

A Southern variety from J. S. Downer.

Fruit medium, roundish oblate, truncate regular, yellow, covered with mixed deep red, striped. Flesh yellow, fine-grained, tender, rather dry, subacid. Good. December. (Warder.)

CORNISH AROMATIC.

An English Apple.

Fruit of medium size, roundish, angular. Color rich red, much marked with russet yellow dots, on a pale russet ground. Flesh yellow, with a rich, aromatic, subacid flavor. Good. October to December.

CORNISH GILLIFLOWER.

Cornish July-flower.	Pomme Regelans.	Red Gilliflower?
Calville d'Angleterre.	Cornwallisser.	Nelken Apfel.

An old English Apple. Tree a poor grower and shy bearer.

Fruit medium size, roundish, conical, narrowing much to the eye where it is ribbed, dull green, or dark yellowish green, with a sunny side of brownish red, intermixed with a few streaks of richer red. Flesh yellowish, firm, with a rich, high flavor, and a slight aromatic perfume. Good. November to April.

CORNISH SPICE.

Origin unknown.

Fruit small, oblate, pale yellow, slight shade in sun. Flesh yellowish, crisp, juicy, slightly aromatic, subacid. Good. November.

CORSE'S FAVORITE.

A Canadian Apple, valuable for stewing.

Fruit medium, oblate, depressed, yellowish green. Flesh whitish, juicy, brisk, subacid. Good. September.

COS, OR CAAS.

A native of Kingston, N. Y., where it is productive and highly esteemed.

Fruit large, one-sided or angular, roundish, broad, and flattened at the stalk, narrowing a good deal to the eye. Skin smooth, pale greenish yellow in the shade, but red in the sun, with splashes and specks of bright red, and a few yellow dots. Flesh white, tender, with a mild, agreeable flavor. Good to very good. December to March.

COSTARD.

Coulthard. Prussian Pippin.

An old English culinary Apple mentioned by Lawson in 1597, and was in the fruiterers' bills in the time of Edward the First, 1292, under name of Pomme Costard. Tree hardy, strong, vigorous, with downy shoots, productive.

Fruit large, roundish oblong, prominently ribbed, dull yellowish green, embedded all over with gray specks. Flesh greenish white, tender, juicy, brisk, subacid. October to December. (Hogg.)

COTSVILLE SPITZENBERG.

A variety received from Nelson & Son, Mercer Co., Pa., by whom it was obtained as a seedling of the Rambo, from Ohio. It looks much like the Baltimore, on p. 86, and may prove identical.

Fruit medium, roundish, slightly conical, whitish, covered over with deep crimson in the sun, lighter in the shade, a little russet, and pretty thickly sprinkled with light dots. Flesh whitish, sometimes a little stained, tender, juicy, pleasant, mild subacid, slightly aromatic. Core small. Very good. December to February.

CORAL BLUSH.

From Ross-shire, Scotland. Tree hardy, vigorous, upright, productive.

Fruit medium, roundish, pale yellow, dull red in the sun. Flesh yellowish, crisp, juicy, brisk. A good culinary sort. December. (Lind.)

COURT PENDU DE TOURNAY.

Reinette d'Orleans.

Originated in Holland. Tree vigorous, productive.

Fruit small to medium, roundish, conical. Flesh creamy white, tender, fine, aromatic. (An. Pom.)

COURT PENDU PLAT.

Court-pendu.

Court-pendu plat rougeâtre.

Capendu.

Garnon's Apple.

Court-pendu Extra.

Rond Gros.

Rose.

Court-pendu Musqué.

Rouge Musqué.

Coriandre Rose.

Pomme de Berlin.

Wollaton Pippin.

Russian.

Princess Noble Zoëte.

A popular French variety.

Fruit of medium size, regularly formed, and quite flat. Skin rich, deep crimson on the sunny side, with a little pale greenish yellow in the

shade. Stalk short, inserted in a very deep cavity. Calyx large, set in a wide shallow basin. Flesh yellow, crisp, with a rich brisk acid flavor. Good. The tree bears young and plentifully. November to February.

COURT PENDU ROSE.

Court Pendu Rosat.

Of French origin. Tree vigorous, productive.

Fruit small, roundish, flattened, yellow, marked with gray dots, and shaded with bright red around the stem. Flesh white, fine, juicy, vinous, acid, perfumed. (An. Pom.)

COURT OF WICK.

Court of Wick Pippin.

Court de Wick.

Rival Golden Pippin.

Fry's Pippin.

Golden Drop.

Wood's Huntingdon.

Barlow.

Transparent Pippin.

Philip's Reinette.

Knightwick Pippin.

Week's Pippin.

Yellow.

A highly-flavored English dessert Apple of the Golden Pippin class, which does not succeed well with us.

Fruit below the middle size, regularly formed, roundish oblate, somewhat flattened, greenish yellow in the shade, but becoming a warm orange, with a little red in the sun. Flesh yellow, crisp, and juicy, with a high poignant flavor. Very good. October to February.

COWARNE RED.

Origin, Herefordshire, England.

Fruit medium, roundish, narrowing to the crown, pale yellow, bright red where exposed to the sun, sometimes deep purplish crimson. Valuable for cider. (Hogg.)

COWARNE'S QUEENING.

Northern Greening.

Tree upright, compact, an abundant bearer.

Fruit very large, roundish, conical, golden yellow, red in the sun. Flesh white, tender. Fine for cooking or drying. November to January. (Ron.)

COX'S ORANGE PIPPIN.

An English variety much esteemed for dessert. Tree is well adapted for dwarfing on the paradise stock, and a free bearer.

Fruit medium, oblate, yellowish, shaded, splashed and slightly mottled nearly over the whole surface with crimson. Flesh yellowish, rather firm, juicy, brisk, rich, subacid. Core small. Very Good. September, October.

COX'S POMONA.

A variety from England, valuable as a culinary apple.

Fruit medium, oblate, somewhat conic, greenish yellow, shade of crimson in the sun. Flesh white, crisp, juicy, brisk subacid. Good. Core small. October.

CRACKING.

Origin, farm of Henry Barger, Harrison Co., O. Tree spreading, vigorous, and productive. Young shoots reddish brown, slightly downy.

Fruit fair, large, roundish, slightly flattened, inclining to conic, obscurely ribbed, pale yellow, with a slight tinge of red, thinly sprinkled with large dots. Stalk medium, in a rather deep slightly russeted cavity. Calyx closed in a corrugated basin. Flesh yellowish white, crisp, tender, juicy, subacid. Good. Core large. Valuable for cooking. October, November.

CRAM OR KRAM.

An old fruit nearly out of use and not worth cultivating.

CRANBERRY.

From Georgia.

Fruit medium, roundish conical. Color yellow, brightly striped with carmine on the unexposed side, and of deeper red on the side next the sun. Many gray russet dots. Calyx small, closed. Flesh whitish. Good.

CRANBERRY PIPPIN.

This strikingly beautiful Apple was found growing on a farm near Hudson, N. Y. It is only second-rate in point of flavor—but it is an excellent cooking and market apple.

Fruit medium, roundish oblate, regular. Skin very smooth, light yellow, with a bright scarlet cheek. Flesh white, moderately juicy, brisk subacid. Good. November to February.

CRANBERRY RUSSET.

Introduced to notice by J. Austin Scott, Toledo, O.

Fruit medium to large, oblate, compressed. Surface rough, russeted, blushed carmine, uneven. Flesh breaking, tender, not very juicy, acid. Good. Said to be superior for cooking. November, December. (Warder.)

CRAWFORD.

Of unknown origin.

Fruit medium, roundish oblate inclining to conic, yellowish, with a tinge of crimson in the sun, few grayish dots. Flesh yellowish, tender, juicy, rather rich, slightly aromatic, subacid. Very good. November to March.

CRAWFORD'S KEEPER.

Originated in Lawrence Co., O. Tree strong grower and a great bearer. Young shoots slender, clear, smooth, light reddish brown.

Fruit above medium, roundish truncated conical, oblique. Color light yellow, mostly overspread with a rich red, large light gray specks. Stem very short. Cavity large, deep, acute, slightly russeted. Calyx closed or nearly so. Segments divided. Basin very deep, broad, abrupt, slightly furrowed. Flesh yellowish white, breaking moderately juicy, mild, sweet, subacid. Good to very good. January to March.

CRAY PIPPIN.

Raised in Kent, England, where it is said to be a valuable dessert App.e.

Fruit below medium, conical, pale yellow, tinge of red in the

sun. Flesh yellow, crisp, sweet, and highly flavored. October. (Hogg.)

CRAYTON.

Fruit medium to large, fine flavor. November to April. (Summer's MS.)

CREAM.

Origin, Queens Co., L. I., N. Y. Tree a vigorous grower, forming a compact head, an early bearer, and by some thought valuable for dessert or culinary purposes.

Fruit medium or below, roundish oblate, yellowish, thickly sprinkled with brown and gray dots. Flesh yellowish, fine-grained, tender, juicy, pleasant, sweet and rich. September and October.

CREED'S MARIGOLD.

Raised from seed of the Scarlet Nonpareil, in Kent, England.

Fruit medium, roundish, deep rich yellow, orange in the sun, covered and striped with shades of rich red. Flesh yellow, tender, juicy, sugary, richly flavored. October, November. (Hogg.)

CREDE'S QUITTENREINETTE.

Crede's Gutton Reinette.

A German variety of medium size, roundish, lemon yellow with star-like russet dots. Flesh white, very fine and juicy, sugary, vinous, quince flavor. December to March. (Hogg.)

CREEK.

A native of Hellam township, York, Pa., where it is highly prized on account of its quality and extraordinary productiveness. Tree vigorous, upright, slightly spreading.

Fruit medium, oblate, slightly conical, greenish yellow, obscurely striped and splashed with light and dark red. Flesh white, tender, juicy, mild, pleasant, subacid. Core small. Very good. December to March.

CREEPER.

Common in Berkshire, England.

Fruit below medium, roundish, somewhat conical, dark green, nearly overspread with red, striped in the sun with darker shades. Flesh white, tender, juicy, sweet, slight aroma. September. (Hogg.)

CREGO RED STREAK.

From Columbia Co., N. Y. Tree very productive.

Fruit medium, roundish oblate, whitish, with stripes and shades of red. Flesh white, sharp subacid. Hardly good. September.

CRIMSON QUEENING.

Scarlet Queening.	Red Queening.
Summer Queening.	Herefordshire Queening.

A second-rate English variety.

Fruit medium size, conical, mostly covered with deep crimson. Flesh

white, with a red tinge under the skin, tender, juicy, sweet, aromatic. December to March. (Hogg.)

CRISPIN.

Of unknown origin.

Fruit large, roundish, oblong truncated, greenish, shaded and striped with shades of red. Flesh whitish, dry, compact, subacid. Not quite good. December to May.

CRITTENDEN.

A new variety, seedling from Kentucky, introduced to notice by J. C. Teas, of Indiana. Tree a sure and prolific bearer.

Fruit medium size, roundish, dull red on yellow. Flesh juicy, very sweet. Good. Keeps until May or June.

CROFTON PIPPIN.

An Apple from Ireland. Tree blossoms late, and bearing its fruit at ends of the branches gives it a drooping appearance.

Fruit below medium size, roundish oblate, greenish, mostly over-spread with red. Flesh firm, rich, juicy. December, January. (Ron.)

CROOK'S SEEDLING.

From the county of Way, Indiana, where it is esteemed as a market sort. Tree forms an open round head, a great bearer.

Fruit full medium size, red striped on yellow ground. Good. October.

CROPSEY'S FAVORITE.

Originated with D. W. Cropsey, Plainfield, Will Co., Ill.

Fruit full medium, roundish, yellow, mixed and splashed with carmine. Flesh yellow, breaking, fine-grained, juicy, subacid. December. (Warder.)

CROTCHER.

Supposed to be a native of Dorchester Co., Md. Tree moderate, rather upright grower, producing large crops of very even-sized fruit.

Fruit medium, oblate conical, slightly truncated. Color waxen white, with a slight blush, and thinly sprinkled with light and green dots. Stalk short. Cavity deep, large, partially russeted. Calyx closed. Basin rather large, abrupt, a little uneven. Flesh whitish, crisp, tender, juicy, refreshing, subacid. Very good. August.

CROW EGG.

An old variety of not very good quality, oblong oval, long stem, greenish yellow, tender, sweet, large core. October, November.

There is also another Crow Egg in Kentucky, of conical form, yellow, striped with dull red. Stem short. Flesh yellow, compact, subacid. Good. December, January.

CROW NEST.

Originated at Kelley's Island, O., in the orchard of Chas. Carpenter. Tree vigorous, productive.

Fruit full medium, round, truncated, greenish yellow, thinly covered with russet. Flesh green, tender, breaking, subacid, only good for cooking. November to January. (Warder.)

CULLASAGA.

Raised by Miss Ann Bryson, Macon Co., N. C. Good grower, and a standard winter fruit for the South. Very productive.

Fruit medium or large, roundish, inclining to conic, sides sometimes unequal. Skin yellowish, mostly shaded and striped with dark crimson, and sprinkled with whitish dots. Stalk small and short, inserted in a deep cavity, surrounded by russet. Calyx open, set in a shallow corrugated basin. Flesh yellowish, rather compact, moderately juicy, mild subacid. Good. November to April.

CULLAWHEE.

A Southern seedling, with slender wood. Tree resembling the Buff.

Fruit medium, or above, oblate, slightly inclining to conic, pale yellow, nearly overspread, shaded and splashed with two shades of red, light crimson and dark dots. Flesh white, tender, juicy, brisk subacid. Good. December to March.

CULP.

Origin, Jefferson Co., O. Introduced by George Culp. Tree very vigorous, spreading, productive.

Fruit medium, roundish oblate, conic, waxen yellow, shaded with blush or dull crimson. Flesh firm, crisp, juicy, agreeable, subacid. Good. December to March.

CUMBERLAND SEEDLING.

Supposed to have originated in Cumberland Co., Pa. Tree a fine grower and great bearer.

Fruit medium, oblate inclining to conic, sides unequal, pale yellow, mostly splashed and shaded with dark crimson, few large light dots. Flesh yellowish, rather firm, juicy, brisk subacid. Good to very good. October, December.

CUMBERLAND SPICE.

From Cumberland Co., N. J. Tree thrifty, upright, spreading, productive.

Fruit rather above medium, roundish conic, pale yellow, rarely with a blush, sprinkled with brown dots. Flesh white, tender, juicy, and pleasant subacid; apt to shrivel. Good. Core large and hollow. December to February.

CURRY'S RED WINTER.

Origin unknown. Came from Eastern North Carolina. Tree vigorous and very productive.

Fruit medium, oblong. Color yellow ground nearly covered with pale red and russet dots. Stalk rather short, slender set in a small cavity. Calyx large and open. Basin large. Flesh white, and solid, and keeps well into January. (So. Cult.)

CURTIS GREENING.

Origin uncertain, found in Illinois.

Fruit medium to large, oblong, truncated, axis inclined, yellow, bronzy. Flesh yellow, breaking, subacid. Good. January to February. (Warder.)

CURTIS SWEET.

Introduced to notice by Joseph Curtis, St. Alban's, Vt. Tree vigorous, upright, productive, and hardy.

Fruit large, roundish, conical, ribbed, pale yellow, sprinkled, marbled, and splashed with crimson, and thickly covered with crimson dots. Flesh white, fine-grained, very tender, with a very pleasant sweet flavor. Core large. Good. August to October.

CUSTARD.

Originated in the grounds of L. B. Langworthy, Greece, Monroe Co., N. Y. Tree productive.

Fruit medium, to small, roundish, or roundish oblate, inclining to conic, greenish yellow, faintly marbled and splashed with dull red, deeper in the sun. Flesh whitish, very tender, juicy, very mild, almost sweet, agreeable, good for the amateur. Core small. Very good. November, December.

CUT PIPPIN.

West's Spitzenberg.
Honemaker Pippin.

Haymaker.
Hommacher Apfel.

From Western Pennsylvania. Tree vigorous, productive.

Fruit medium to large, greenish. Flesh greenish, juicy, subacid. Good. December to April. (Elliott.)

DAHLONGEA.

Of Southern origin, but precise locality unknown.

Fruit medium, roundish conical, light greenish yellow, shaded, splashed, and marbled with crimson, a slight bloom, and thickly sprinkled with light dots. Flesh whitish, moderately tender, juicy, subacid. Good. February to March.

DAHLTON.

Dahlton Pippin.

Origin unknown. So far as we know, only grown in Massachusetts.

Fruit medium, oblate, greenish yellow, slight blush in the sun, greenish dots. Flesh whitish, juicy, tender, mild subacid. Good. September, October.

DAME JEANNETTE.

Joannetten's Reinette.

Of French origin.

Fruit small to medium, roundish, conical, yellowish, with a bronzed cheek in sun. Stalk slender. Calyx large. Flesh white, veined with yellow, mild subacid, perfumed. December. (Verg.)

DANA.

Origin, near Cincinnati, O. Tree large, productive.

Fruit small, flat rich, yellow partially covered with mixed red, distinctly striped with carmine, white bloom. Flesh yellow, fine-grained, subacid. August. (Warder.)

DANA GREENING.

Fruit medium or below, oblate, greenish yellow, few gray dots. Flesh whitish, crisp, pleasant subacid. Good. December to March.

DANA'S STRIPED SWEET.

From Ohio.

Fruit medium or below, oblate, sides sometimes unequal, yellowish shaded, and striped with red. Flesh white, crisp, juicy, mild, pleasant sweet. Good. December to March.

DANIEL.

From Henry Co., Ind.

Fruit medium, roundish oblate, greenish yellow, partially striped and splashed with dull crimson. Flesh white, fine-grained, tender, juicy, pleasant subacid. Good. August and September.

DANIEL'S APPLE.

An old variety. Origin unknown, of no value.

Fruit medium, roundish conical, greenish, with dull crimson. Flesh white, coarse, tender, juicy, subacid. Core large and hollow. October.

DAN PEARMAIN.

Originated in Indiana.

Fruit medium to small, round, flattened, yellow, covered, mixed, and striped with bright red. Flesh yellow, breaking, tender, mild subacid, rich. Too small for profit. December to March. (Warder.)

DANVERS WINTER SWEET.

Epe's Sweet.

Origin, Massachusetts, in the town of Danvers, from which this variety takes its name, it has been for a long time one of the best market apples, but we think it inferior to the Ladies' Sweeting. It is an abundant bearer, and a very rapid tree in its growth. Young shoots dark grayish brown, slightly downy.

Fruit of medium size, roundish oblong. Skin smooth, dull yellow, with an orange blush. Stalk slender, inclining to one side. Calyx set in a smooth, narrow basin. Flesh yellow, firm, sweet, and rich. Very good. It bakes well, and is fit for use the whole winter, and often till April.

DAPPER.

From Georgia.

Fruit small, roundish, truncate, yellow, with crimson specks. (Pa. Rep.)

DARLINGTON.

Darlington Russet.

Native of Northern Ohio.

Fruit medium, roundish, smooth russet. Flesh white. Hardly very good. January to June. (Elliott.)

DARLING PIPPIN.

An old English sort, described in 1665.

Fruit medium, oblate conical, lemon yellow, small pearly specks. Flesh yellowish, firm, juicy pleasant subacid. November to January. (Lind.)

DARTMOUTH SWEET.

An old Massachusetts variety.

Fruit medium, oblate, yellow, sprinkled with brown dots. Flesh yellowish, moderately juicy, tender, sweet. Good. October.

DAVIS.

Origin, Plymouth, Wayne Co., Mich., on the farm of Jehiel Davis. Tree vigorous, upright, bears annually.

Fruit small, roundish, flattened at base and crown, yellowish, shaded, and obscurely striped with crimson, russeted at the crown, and sprinkled with gray dots. Flesh whitish, fine-grained, compact, juicy, crisp, sprightly, subacid. Good. April, May.

DAVIS'S SWEET.

Origin said to be Monroe Co., O. Tree vigorous, productive.

Fruit medium, roundish oblate, sometimes rather conical, regular. Color yellow, shaded with mixed red, splashed crimson, numerous large gray or fawn-color dots. Skin not smooth, thick. Stem long, slender. Cavity acute, regular. Calyx medium, closed. Basin small, abrupt, russeted. Flesh yellow, fine-grained, rather sweet. Core medium. Quality good. April to July. (A. Pom. S.)

DAWSON'S CLUSTER.

From Clark Co., O.

Fruit medium, oblong, truncate, pale yellow, blushed lightly with brown. Flesh yellowish white, tender, juicy, subacid. Good. November. (Warder.)

DAY.

Royal Pippin.

A native of Kentucky.

Fruit large, round, somewhat conic, yellow striped, splashed, and mottled with bright red. Flesh white, firm, breaking, subacid. Poor. January. Kitchen use.

DAYTON.

Haley.

From Maine.

Fruit medium, roundish conic, whitish yellow, marbled and striped with red. Flesh juicy, tender, subacid. Good. Core large. December.

DEFIANCE.

Originated with H. N. Gillett, Ohio, from seed of Pryor's Red.

Fruit medium, oblate conical, yellow, nearly overspread, shaded, splashed, and striped with rich red. Flesh white, tender, not juicy, rich peculiar aroma. Good. August, September.

DELAWARE.

Trumpington.

Of unknown origin, supposed American, although heretofore found described only in Ronalds.

Fruit of medium size, oblate, golden yellow, blotched with deep red. Flesh firm, rich, high-flavored. October to December.

DELIGHT.

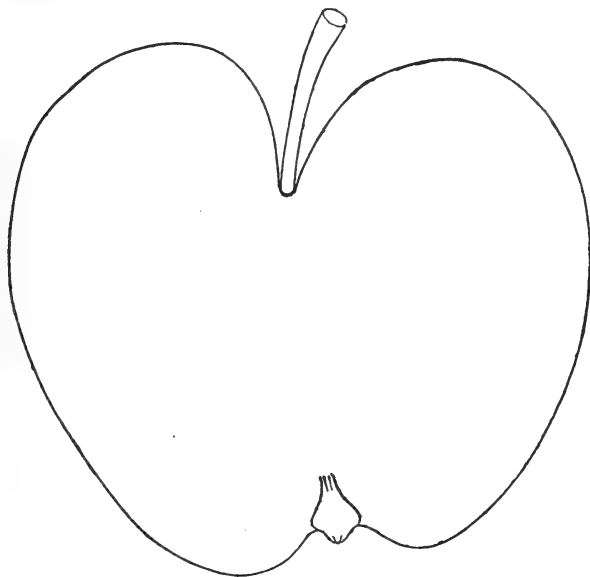
From Robert Buchanan, Cincinnati, O.

Fruit medium, roundish oblate, yellow, some russet, and a red cheek in the sun. Flesh yellowish, firm, mild subacid, almost sweet. Good. December to March. (Elliott.)

DEMOCRAT.

Varick.

An Apple considerably grown in Tompkins Co., N. Y., the origin of which cannot be correctly traced. The trees are great bearers, fruit keeping well, and always meeting a ready sale in market. Tree an upright, good grower, annually productive. Young shoots reddish brown.



Democrat.

Fruit—size medium, or above; form roundish conical, obscurely ribbed. Color pale whitish yellow, shaded, partially striped, and splashed nearly over the whole surface with light and dark crimson, and pretty

thickly sprinkled with small light dots. Stalk medium, slender. Cavity large, deep, acute. Calyx small, closed. Segments small and short to a point. Basin medium, rather deep, corrugated. Flesh white, sometimes a little stained next the skin, very tender, juicy, mild, pleasant subacid. Very good. Core large. December to March.

DEMOCRAT.

Warder describes an Apple under this name obtained of George Powers, Perrysburgh, O., as follows :

Fruit medium, roundish conic, yellow, blushed scarlet. Dots minute. Flesh yellow, breaking, juicy, subacid, aromatic. Good to very good. October, December.

DERRY NONSUCH.

Dinsmore.

Londonderry.

Origin unknown, from Keene, N. H., and held in estimation there. Tree thrifty and productive, a late keeper.

Fruit above medium, oblong or conic, yellow, sprinkled, shaded, and splashed with crimson. Stalk short, in a moderate cavity. Calyx large, closed. Basin shallow, uneven. Flesh yellowish, juicy, tender, slightly aromatic, agreeably subacid. Good. January to April.

DETROIT BLACK.

Crimson Pippin.

Grand Sachem.

Black Detroit.

Washington Pearmain.

A showy, large, dark, blood-red fruit, but rather coarse, and scarcely worth cultivation.

Fruit very large, roundish, distinctly ribbed, and irregular in its outline. Skin smooth, deep, dingy red over the whole surface. Flesh white, rather dry, and without much flavor. Good. September.

DETROIT RED.

Detroit.

Black Apple of some.

Large Black.

This fruit, commonly known in Western New York and Michigan as the Detroit, is supposed to have been brought to the neighborhood of Detroit by early French settlers, and thence disseminated.

Fruit of medium or rather large size, roundish, somewhat conical, bright crimson at first, but becoming dark blackish purple at maturity, somewhat dotted and marbled with specks of fawn color on the sunny side. Flesh white (sometimes stained with red to the core in exposed specimens), crisp, juicy, of agreeable, sprightly subacid flavor. Good. October to February.

DEVONSHIRE BUCKLAND.

Dredge's White Lily.

White Lily.

Lily Buckland.

An English culinary Apple.

Fruit above medium, roundish oblate, waxen yellow. Flesh yellow, crisp, juicy, brisk, sweet. October to February. (Hogg.)

DEVONSHIRE GOLDEN BALL.

An English Apple, described by Ronalds as follows :

Fruit large, globular, straw-colored, with flesh of unstriped carmine.

A beautiful sauce apple, with an agreeable acid. January and February. Tree grows well and bears freely.

DEVONSHIRE QUARRENDEN.

Red Quarrenden. Sack Apple.

An English fruit, scarcely of medium size, roundish, flattened, and slightly narrowed at the eye. Skin rich deep crimson, with lighter crimson, sprinkled with numerous green dots. Flesh nearly white, crisp, juicy, with a pleasant subacid flavor. Good. Ripe during all August and September.

DEVONSHIRE QUEEN.

Ronalds describes this as a favorite apple in the West of England.

Fruit rather large, roundish oblate, straw-colored, with bright red stripes. Flesh juicy, high flavored, for table or sauce.

DEVONSHIRE RED STREAK.

Another old West of England fruit, which, when grown in the States, becomes increased in size.

Fruit medium, roundish conical, yellowish with many stripes of red, few brown dots. Flesh yellow, tender, brisk, subacid. Good. Core large, hollow. November, December.

DEVONSHIRE WILDING.

A cider Apple much valued in North Devon, England. Tree a strong grower and free bearer.

Fruit medium, roundish, yellowish green. Flesh firm, sharp, acid.

DIEL'S REINETTE.

Reinette Diel. Diel Kernobst.

This variety was raised by Van Mons. Tree strong, healthy, vigorous grower, and abundant bearer.

Fruit below medium, roundish oblate, orange yellow at maturity, with crimson and russety dots and spots. Flesh white, firm, crisp, juicy rich, spicy. December to March.

DICKSON'S EMPEROR.

From Scotland.

Fruit large, slightly ribbed, yellow, with dashes of carmine, dull red in sun. Flesh yellowish white, juicy. Good. November, January. (Elliott.)

DICKSKILL.

This Apple was first found among the Dutch, on the west end of Long Island. It is valued where known for being an early and regular bearer, but is not an attractive market fruit.

Fruit medium, oblate, greenish yellow, mostly covered, shaded and splashed with dull red. Flesh whitish, crisp, juicy, tender, mild, almost sweet, subacid. Good. November, December.

DIETZER ROTHE MANDEL REINETTE.

A German dessert Apple, which should bear the test of American

palates before being highly praised. Tree a fine grower and productive. Hogg thus describes it:—

Fruit medium, roundish, clear yellow, with light red, slightly broken into stripes in the sun. Flesh fine, yellowish, firm, juicy, rich, aromatic, subacid. December.

DILLINGHAM.

Raised by D. C. Richmond, of Sandusky, O. Tree moderately vigorous, productive, and particularly excellent for baking. Wood light reddish brown. Buds prominent, downy.

Fruit medium, roundish, inclining to conic, greenish yellow, with green and red dots. Stalk short. Cavity deep. Calyx closed in a medium basin. Flesh yellowish, fine-grained, juicy, sweet. Good. November to February.

DISHAROON.

Origin, Habersham County, Georgia, growth upright and vigorous, productive.

Fruit medium, roundish conical, greenish white, covered with gray dots. Flesh yellowish white, juicy, tender, with a pleasant subacid flavor. Good. November to December.

DOBB'S KERNEL GOLDEN PIPPIN.

From Gloucester, England, and only estimated over the old Golden Pippin because of more free growth, and more productive.

Fruit small, oblate, rich, golden yellow. Flesh firm, crisp, sharp subacid. March to April. (Ron.)

DOCTOR.

Red Doctor. De Witt.

A Pennsylvania Apple; the tree is rather an indifferent grower and bearer.

Fruit medium, roundish oblate, yellow, striped and washed with two or three shades of red, with a few darker spots. Flesh tender, juicy, breaking, slightly aromatic, subacid. Good. October, January.

DOCTOR HELSHAM'S PIPPIN.

From Norfolk Co., England. Tree slender, productive.

Fruit medium, roundish conical, yellowish green, slight red in sun. Flesh white, sweet, slightly aromatic. August, September. (Lind.)

DOCTOR FULCHER.

Origin, Todd Co., Ky. Tree thrifty, an early abundant bearer. Shoots slender.

Fruit medium, globular, truncated, yellow marbled, and splashed with carmine. Flesh yellow, fine-grained, tender, juicy, subacid. December, January. (Warder.)

DODGE'S CRIMSON.

Cumberland Black.

Originated with J. W. Dodge, Pomona, Tenn. Tree a free grower, making a round or spreading head, with slender limbs, which droop

with the weight of the fruit. Young shoots very dark brown ; an annual and great bearer.

Fruit medium, roundish conical, deep rich red, almost purplish, few small light dots. Flesh white, sometimes stained a little next the skin, firm-grained, tender, juicy, sprightly, vinous. Good to very good. December, January.

DOMINE.

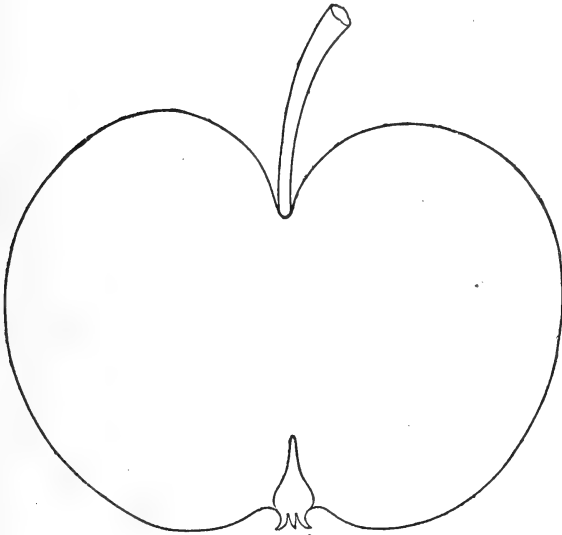
English Rambo of some.
Hogan.
English Red Streak.

Wells.
Striped R. I. Greening.
English Beauty of Pa.

Cheat.
Cling Tight.

This Apple, extensively planted in the orchards on the Hudson and west, so much resembles the Rambo externally, that the two are often confounded together, and the outline of the latter fruit (see Rambo) may be taken as nearly a fac-simile of this. The Domine is, however, of a livelier color, and the flavor and season of the two fruits are very distinct,—the Rambo being rather a high-flavored early winter or autumn apple, while the Domine is a sprightly, juicy, long-keeping winter fruit.

Fruit of medium size, flat. Skin lively greenish yellow in the shade, with stripes and splashes of bright red in the sun, and pretty large russet specks. Stalk long and slender, planted in a wide cavity and inclining to one side. Calyx small, in a broad basin, moderately sunk. Flesh white, exceedingly tender and juicy, with a sprightly pleasant, though



Domine.

not high flavor. Young wood of a smooth, lively light brown, and the trees are very hardy, and the most rapid growers and prodigious early bearers that we know—the branches being literally weighed down by the rope-like clusters of fruit.

The Domine does not appear to be described by any foreign author. Coxe says that he received it from England, but the apple he describes and figures does not appear to be ours, and we have never met with it in any collection here. It is highly probable that this is a native fruit. It is excellent from December till April.

DONNELAN'S SEEDLING.

Of American origin.

Fruit medium, roundish, greenish yellow, dull red stripes. Flesh yellowish, dry, subacid. September. (Elliott.)

DOUX D'ARGENT.

Doux d'Angers. D'Eve. Ostogate.

Supposed French origin. Tree vigorous, productive, with straight, downy young shoots.

Fruit medium, oblate, conical, waxen yellow, bright red in the sun. Flesh white, firm, crisp, not very juicy, partially sweet. December, January.

DOWELL'S PIPPIN.

An old Berkshire, England, dessert Apple.

Fruit medium, roundish, conical, green, with russet and brownish red in the sun. Flesh firm, crisp, juicy, aromatic. October.

DOWNING'S PARAGON.

Raised by A. G. Downing, near Canton, Ill. Growth upright, not very strong. Bears regularly and well.

Fruit above medium, roundish, truncated. Skin light yellow, with a sunny cheek. Flesh whitish, juicy, tender, sweet, rich, aromatic. Good to very good. September to December.

DOWNTON PIPPIN.

Elton Pippin. Downton Golden Pippin.
Knight's Golden Pippin. St. Mary's Pippin.

A rather early variety of the English Golden Pippin, raised by Mr. Knight, of Downton Castle.

Fruit a little larger than the Golden Pippin, about two and a quarter inches in diameter, roundish, flat at the ends. Skin smooth, yellow. Flesh yellowish, crisp, with a brisk, rich tart flavor. Very good. October and November.

DOW'S WINTER PIPPIN.

Origin, on the grounds of V. P. Dow, Greenbush, near Albany, N. Y. Tree productive.

Fruit large, oblate, green inclining to yellow, slightly shaded in the sun with crimson, few brown dots. Flesh greenish, tender, juicy, brisk subacid, slightly aromatic. Good. November.

DRAP D'OR.

Fennouillet Jaune. Vrai Drap d'Or. Embroidered Pippin.
Bay Apple. Pomme de Caractère. Bonne de Mai.

Tree straggling, unproductive, moderately vigorous.

This is distinct from the Drap d'Or of Lindley, and of Noisette, and

most French authors, which is quite a small apple ; but it is the *Vrai Drap d'Or* of the old Duhamel, pl. xii. Fig. 4.

Fruit large, roundish oblate. Skin smooth, yellow or dead gold color, with distinct small brown dots or specks. Flesh crisp, juicy, mild subacid. Good. August to October.

There are two or three apples under this name—one is similar in size to the above, but the tree is of stronger growth, dropping its fruit before mature, which is rather coarse, spongy. Flesh quite inferior.

Another variety, the *Drap d'Or* of Knoop, is small, bright yellow, firm and crisp.

DREDGE'S FAIR MAID OF WISHFORD.

A variety from near Salisbury, England. Tree a free grower, and good bearer.

Fruit medium, roundish, yellow, with patches of brown russet, and streaks of red in sun. Flesh yellowish, firm, brisk, juicy, sugary. December to March. (Hogg.)

DREDGE'S FAME.

Tree hardy, vigorous grower, productive.

Fruit medium, roundish, dingy yellow, patches of thin russet, pale red in the sun. Flesh greenish yellow, firm, crisp, brisk, sugary, aromatic. December to March. (Hogg.)

DREDGE'S GOLDEN PIPPIN.

Ronalds describes this as a little larger than the original, flattish in shape, clear yellow, firm, and sweet. February to March.

DUCHESS DE BRABANT.

Reinette Duchesse de Brabant.

Tree very vigorous.

Fruit large, variable in form, yellow, spotted with reddish gray dots, crimson cheek in the sun. Flesh yellowish white, firm, crisp, juicy, acid. September to December. (An. Pom.)

DUCHESS OF OLDENBURGH.

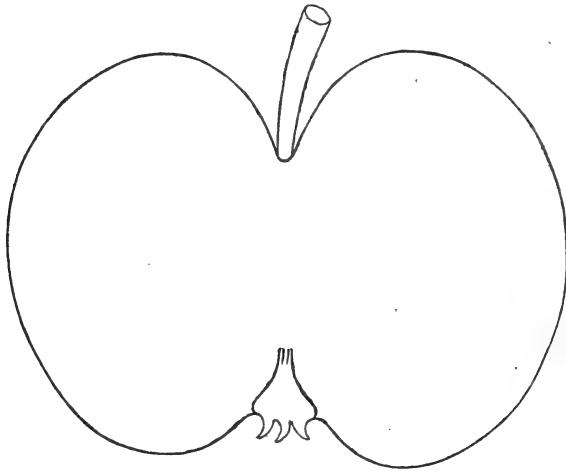
Smith's Beauty of Newark.

New Brunswick.

This handsome Russian Apple proves one of the most hardy and profitable varieties in cultivation, and especially in our northwestern sections. The tree is vigorous, forming a roundish, upright, spreading head, requiring little or no pruning, and producing abundantly a fruit of fair, even, and regular size, that, although not of the first quality, always commands a ready sale, as it is valuable for market and cooking, and passably good for dessert. Young shoots smooth, reddish.

Fruit medium size, regularly formed, roundish oblate. Skin smooth, finely washed and streaked with red on a golden or yellow ground. Calyx

pretty large and nearly closed, set in a wide, even hollow. There is a faint blue bloom on this fruit. The flesh is juicy, sprightly subacid. Ripens early in September.



Duchess of Oldenburgh.

DUCKETT.

A Southern fruit.

Fruit rather large, oblate, light waxen yellow, often with a crimson cheek. Flesh white, tender, juicy, pleasant, aromatic. Good. Very good at the South, where it is ripe October to November.

DUFFIELD PIPPIN.

Probably an old variety, claimed as a seedling of the Rev. George Duffield's ancestors.

Fruit medium, roundish oblate, pale yellow, with shade of light crimson in the sun. Flesh yellowish, juicy, tender, pleasant, subacid. Good. November.

DU HALDER.

Probably a Holland variety. Tree vigorous, very productive.

Fruit large, roundish conical, golden yellow, with gray white dots. Flesh white, fine, semi-tender, sugary acid. November to May. (An. Pom.)

DUKE OF BEAUFORT'S PIPPIN.

Fruit large, roundish oblate, ribbed, greenish, with faint streaks in the sun of pale red. Flesh greenish white, crisp, and subacid. November, December. (Lind.)

DUKE OF DEVONSHIRE.

An English dessert Apple.

Fruit of medium size, roundish, lemon yellow, with a dull red cheek. Flesh yellowish, crisp, juicy, rich, sugary, fine aroma. February to May. (Hogg.)

DULCE DOMAN.

Sweet Home.

Introduced by E. H. Cocklin, Cumberland Co., Pa. Tree of upright growth, moderately vigorous and productive.

Fruit medium, oblate, greenish yellow with a shade of red in the sun. Flesh firm, yellowish, moderately juicy, mild honeyed sweet. Good to very good. Baking and stewing. November, February.

DUMELOW'S SEEDLING.

Wellington.

Dumelow's Crab.

English, rather large, roundish, yellow, with a blush. Flesh yellow, crisp, brisk, acid. Good. November to March.

DUMPLING.

Crooked Limb Pippin. French Pippin of Indiana. Watrous Dumpling.

Fruit large, roundish oblong, light yellow, blush in the sun. Flesh white, indifferent. October, December. (Elliott.)

DUNCAN.

Fruit medium, roundish oblate conical, ribbed, yellow, with rich deep red in the sun. Flesh yellowish white, crisp, juicy, pleasantly acid. November to January. (Hogg.)

DUSTEN.

Of unknown origin, but grown in Weare, N. H.

Fruit medium, oblate, whitish yellow, few gray dots. Flesh white, tender, juicy, pleasant subacid. Good. November.

DUTCH CODLIN.

Chalmer's Large.

A very large kitchen Apple, valued only for cooking, from August to September.

Fruit of the largest size, irregularly roundish, or rather oblong, strongly marked by ribs extending from the base to the eye. Skin pale yellow, becoming orange yellow on the sunny side. Flesh white, subacid, and moderately juicy. Good.

DUTCH MIGNONNE.

Reinette Dorée.

Pomme de Laak.

Grosser Casselar Reinette.

Paternoster Apfel.

Settin Pippin.

Copmanthorpe Crab.

A popular Apple from Holland. Tree moderately vigorous, upright, spreading, young wood dark brown, downy, productive.

Fruit medium, roundish oblate, slightly conic. Skin rather rough, yellow, shaded, striped, and splashed with shades of light and dark

rich red, and moderately sprinkled with light and brown dots. Stalk medium, slender. Cavity large, often russeted. Calyx partially open. Segments erect. Basin large, slightly corrugated. Flesh yellowish, a little coarse, tender, juicy, slightly subacid. Core small. Good to very good. December to March.

The foregoing is not the Dutch Mignonne which was described in the first edition of this book. That variety differs in being a more vigorous grower, forming a very large spreading tree, and bearing its fruit singly and very evenly distributed over the whole of the branches. We are uncertain of its true name. Young wood very stout, dark reddish brown.

Fruit large, often very large, roundish oblate. Skin dull orange, half covered or more with rich, dull red, dotted and mottled with large yellow russet specks. Calyx very large. Segments divided and reflexed. Basin very broad, large, and deep, slightly corrugated. Flesh yellowish, a little coarse, breaking, tender, rich, aromatic. Very good. November to February.

DUZENBURY.

This valuable new Apple originated on the farm of Charles Duzenbury, Phillipstown, Putnam Co., N. Y. The tree is a vigorous grower, forming a handsome spreading head, producing abundantly a medium-sized, regular, uniform fruit, which keeps and retains its flavor until May. Young wood, dark brownish red.

Fruit medium; form roundish conical, truncated; color greenish yellow, shaded and rather obscurely splashed with dull red over nearly two-thirds its surface, and sprinkled with a few gray and light dots. Stalk rather short. Cavity rather large and deep. Calyx closed. Segments medium, erect to a point. Basin rather abrupt, slightly corrugated. Flesh whitish yellow, crisp, tender, moderately juicy, very mild, and pleasant subacid, almost sweet. Core small. Very good. February to May.

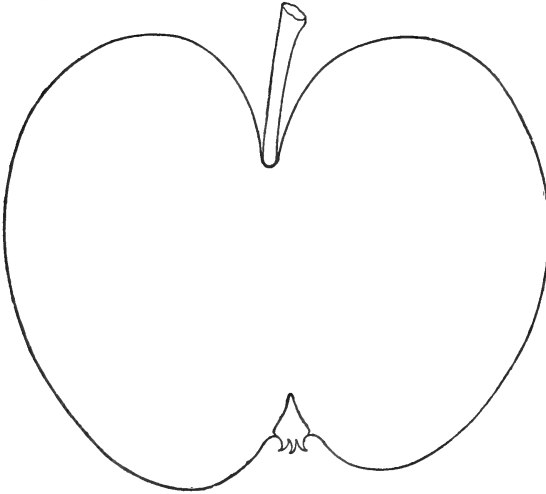
DYER, OR POMME ROYALE.

Golden Spice.	Pinneo's Favorite.
White Spice.	Woodstock.
Smithfield Spice.	Tompkins.
Mygatt's Bergamot.	Coe's Spice.
Beard Burden.	Bullripe.

A popular dessert Apple, very sprightly, tender, and excellent. Tree a moderate grower. Young wood grayish brown. It is supposed to be of French origin, and to have been brought to Rhode Island more than a hundred years ago. It was renamed Dyer by the Massachusetts Horticultural Society, who supposed it to be a seedling of Mr. Dyer, of Rhode Island, but the old and familiar name of *Pomme Royale* should be preferred.

Fruit of medium size, roundish, pretty regularly formed. Skin smooth, pale greenish yellow, with a faint blush and a few dark specks on one side. Stalk about half an inch long, set in a smooth, round cavity. Calyx closed. Basin plaited, moderately deep. Core round, hollow. Flesh white, very tender and juicy; flavor very mild and

agreeable, aromatic, slightly subacid. Very good to best. September October.



Dyer, or Pomme Royale.

EARLY CHANDLER.

Fruit medium or small, roundish. Color mostly shaded and striped with fine red on yellow ground. Stalk short, in a regular cavity. Calyx closed, in a large basin. Flesh yellow, tender, juicy, with a pleasant subacid flavor. Fine for cooking, too acid for eating. Good. August.

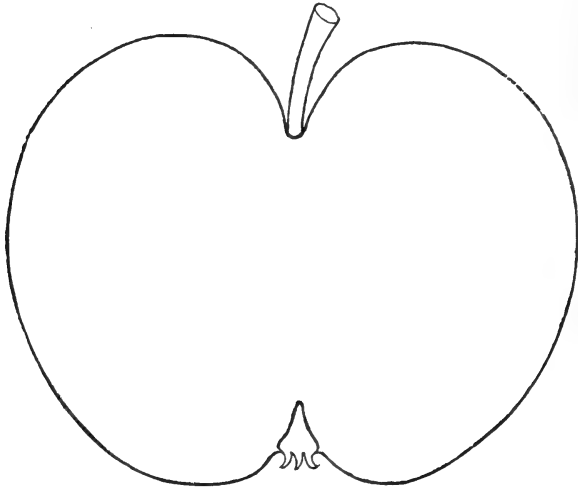
EARLY HARVEST.

Prince's Harvest, or Early French Reinette, of Coxe.	
July Pippin.	Tart Bough.
Yellow Harvest.	Early French Reinette.
Large White Juneating.	Sinclair's Yellow.

An American Apple; and taking into account its beauty, its excellent qualities for the dessert and for cooking, and its productiveness, we think it the finest early apple yet known. It begins to ripen about the first of July, and continues in use all that month. The smallest collection of apples should comprise this and the Red Astrachan. Tree moderately vigorous, upright, spreading. Young shoots reddish brown.

Fruit medium size. Form roundish, often roundish oblate, medium size. Skin very smooth, with a few faint white dots, bright straw-color when fully ripe. Stalk half to three-fourths of an inch long, rather slender, inserted in a hollow of moderate depth. Calyx set in a shal-

low basin. Flesh very white, tender, and juicy, crisp, with a rich, sprightly subacid flavor. Very good to best. Core small.

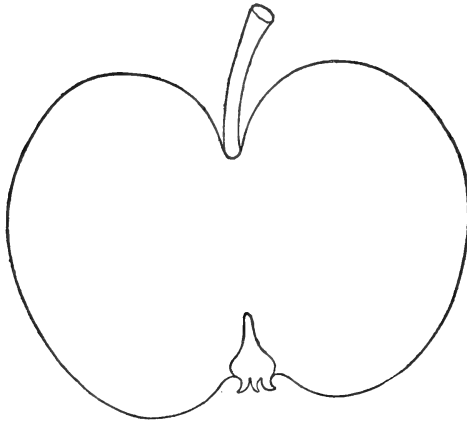


Early Harvest.

EARLY JOE.

Origin, orchard of Heman Chapin, Ontario Co., N. Y. Tree of slow growth, productive, requires high culture for fair fruit.

Fruit below medium, oblate, very slightly conic, smooth, yellowish,



Early Joe.

shaded and striped with red, and thickly sprinkled with greenish spots. Stalk of medium length, inserted in a large cavity surrounded by russet. Calyx closed. Basin moderate. Flesh whitish, tender, juicy, with a

very agreeable vinous flavor. Best. Ripe middle of August to middle of September.

There is a Luce's Early Joe which is distinct from this, being larger, and not as good quality.

EARLY JULIEN.

This Apple is of Scotch origin, the tree healthy and hardy, and a good bearer.

Fruit medium size, roundish, slightly flattened, pale yellow, deepening in the sun. Flesh yellowish white, juicy, brisk subacid, pleasant. August. (Lind.)

EARLY LONG STEM.

Early Spice.

Origin unknown. Specimens received from Henry Avery, Burlington, Iowa.

Fruit small, oblong conical, slightly ribbed. Skin greenish yellow. Stem long, slender, in a large cavity, slightly russeted. Calyx closed. Basin shallow, corrugated. Flesh white, tender, juicy, slightly aromatic, subacid. Good. August.

EARLY MARROW.

A large Scotch Apple, roundish conical, ribbed. Skin yellowish white, with a tinge of red in the sun. Flesh tender, and bakes well; productive. Good. September and October.

EARLY NONPAREIL.

Stagg's Nonpareil.	New Nonpareil.	Hick's Fancy.
Summer Nonpareil.	Lacy's Nonpareil.	

Originated about 1780, in Norfolk, England. Tree a free upright grower, hardy, early, and abundant bearer.

Fruit medium, roundish oblate, dull yellow with gray russet, and russet dots. Flesh yellowish white, tender, juicy, brisk, rich, aromatic. October, November. (Lind.)

EARLY NONPAREIL.

A variety grown in Illinois, the origin of which we cannot learn. It is barely possible that this may prove identical with the foregoing.

Fruit medium to large, roundish oblate, strongly ribbed, whitish, thinly shaded, striped and splashed with red gray dots. Flesh white, sometimes stained next the skin, very tender, juicy, sprightly subacid. Good. Core large. September.

EARLY PENNOCK.

Shakers' Yellow.	Indian Queen.
August Apple.	New Jersey Red Streak.
Warren Pennock.	Harmony.

A very productive and favorite variety with many at the West.

Fruit large, roundish conic, ribbed, light yellow, splashed, mottled, and shaded with light red. Flesh whitish, a little coarse, subacid. Good. Core large. Last of August and September.

Tree hardy, an early and abundant bearer. The fruit, however, is only showy, and salable in market where a better quality of fruit is unknown.

EARLY QUEENING.

Fruit medium or below, roundish, yellow, striped and mingled with red. Flesh whitish, slightly subacid. August. Tree rather spreading, with light brown shoots.

EARLY RED MARGARET.

Margaret, or Striped Juneating.	Striped June.
Early Red Juneating.	Striped Juneating.
Red Juneating.	Eve Apple of the Irish.
Margaretha Apfel of the Germans.	

An excellent early Apple, ripening about the middle of July, or directly after the Early Harvest. The tree while young is rather slender, with reddish brown upright woolly shoots. It is a moderate bearer.

Fruit below medium size, roundish ovate, tapering towards the eye. Skin greenish yellow, pretty well covered by stripes of dark red. Flesh white, subacid, and, when freshly gathered from the tree, of a rich, agreeable flavor. Good.

EARLY RED STREAK.

Fruit medium, roundish, yellowish, mostly covered with red, mottled and splashed. Flesh white, tender, juicy, crisp, subacid. August, September.

There are a number of distinct apples under the name of Early Red, or Early Red Streak, and we have been unable to decide perfectly as to which the name truly belongs. None of them, however, are more than moderately good. One, under name of Philadelphia Queen, is also similar to Early Red, and may be the same. The origin is variously claimed, but all unknown.

Fall Stripe may also prove identical with one of the above.

EARLY RED SWEET.

From Pennsylvania.

Fruit medium, roundish, sweet. Not desirable.

EARLY RIPE.

Supposed Pennsylvania origin, but unknown. Tree a free grower, and productive.

Fruit medium, roundish oblate, pale yellow, sprinkled with a few gray dots. Stalk long, in a slightly russeted cavity. Calyx small, closed. Flesh white, tender, juicy, subacid. Good. August.

There is also another apple under name of *Early Ripe*, which is small, oblate. Stalk short. Flesh brisk subacid.

EARLY SPICE.

An English culinary Apple. Fruit medium, roundish, pale yellow. Flesh white, marrowy, poor. August. (Hogg.)

There is also an Early Spice originated in Chatham, N. C., which is

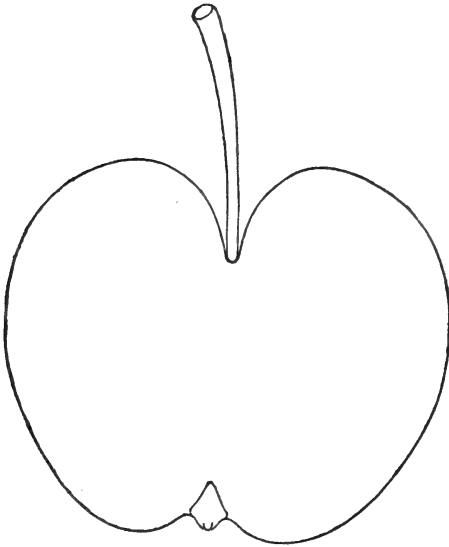
small, round, yellow. Flesh yellow, dry, high flavored. Tree productive. Young shoots slender.

EARLY STRAWBERRY.

American Red Juneating. Red Juneating.

A beautiful variety, which is said to have originated in the neighborhood of New York, and appears in the markets there from July till September. It is quite distinct from the Early Red Margaret, which has no fragrance, and a short stem.

Fruit roundish, narrowing towards the eye. Skin smooth and fair,



Early Strawberry.

finely striped and stained with bright and dark red, on a yellowish white ground. Stalk an inch and a half long, rather slender and uneven, inserted in a deep cavity. Calyx rather small, in a shallow, narrow basin. Flesh white, slightly tinged with red next the skin, tender, subacid, and very sprightly and brisk in flavor, with an agreeable aroma. Very good.

EARLY SWEET.

Originated with W. C. Hampton, Ohio. Tree upright, productive. Fruit medium or below, roundish, whitish yellow. Flesh white, tender, moderately juicy, sweet. Good. August.

EARLY TART.

Supposed seedling of Lancaster Co., Pa. Tree productive. Fruit medium, roundish, inclining to conic, pale yellow, light shade of

crimson in sun. Stalk short. Calyx closed. Flesh white, tender, juicy, brisk subacid. Good for cooking. August.

EARLY TART HARVEST.

Tree moderately vigorous, productive.

Fruit medium, oblate, slightly conic, obscurely ribbed, waxen white, sometimes greenish, rarely a blush in sun. Stalk medium. Calyx closed. Flesh white, very tender, juicy, brisk subacid. Very good. Core medium. Ripe about two weeks later than Early Harvest.

EARLY WAX.

Wax Apple.

An English variety.

Fruit below medium, oblong, roundish, somewhat ribbed, waxen yellow. Flesh yellowish white, tender, soft, sweet. August. (Hogg.)

EARLY YELLOW REINETTE.

Reinette Jaune Hatif.

Fruit medium, conical, yellow and red. Flesh rich and juicy. August.

EASTER PIPPIN.

Young's Long Keeping.	Ironstone Pippin.
Claremont Pippin.	French Crab. Forsyth (not of Coxe).

Remarkable for keeping sound and firm two years. It is an English variety.

Fruit of medium size. Skin deep green, with a pale brown blush. Flesh very firm, and though not juicy, of a good subacid flavor.

EAST GRINSTEAD.

Ronalds describes this as a Sussex Apple of great excellence for table or kitchen.

Fruit medium, roundish conical, dull greenish yellow, with splashes of dull faint red. Flesh white, juicy, acid. March to May.

EATON.

Origin unknown, found a grafted tree in the garden of J. B. Eaton, Buffalo, N. Y., and described in the Am. Pom. Soc. Reprints, 1854.

Fruit large, oblong conical, dull green, striped with dull red, deeper when exposed to the sun. Stalk rather slender. Calyx large. Flesh white, tender, juicy, subacid. Good to very good. November, December.

EDEL KÖNIG.

Roi-Très-Noble.

A German culinary Apple of first-rate quality.

Fruit large, roundish conical, truncated, ribbed, yellowish green,

deep purplish crimson in sun. Flesh white, tinged with pink, tender, juicy, sugary, raspberry flavor. October, November. (Hogg.)

EDGAR'S.

An English Apple, which Ronalds describes as of medium size, roundish, yellow laced with bright red striping. A beautiful fruit, excellent for the dessert or kitchen. November, December.

EDWARD'S.

Origin, Chatham Co., N. C.

Fruit nearly medium, roundish oblate, greenish yellow, lightly striped with delicate red. Flesh rich, juicy, firm. One of best keepers. (Con. Gent.)

EGGERMONT.

Eggermont's Calville.

Fruit medium, oblate. Skin glossy, lemon yellow, slight lines of russet. Flesh white, firm, juicy, marrowy, sugary, vinous. November. (Hogg.)

EGG TOP.

Eve. Sheep Nose. Round Top. Wine of some.

Fruit medium, elongated, oblong, conic oval, mostly overspread, and splashed and striped with shades of red. Flesh white, tender, moderately juicy, subacid. Scarcely good. November, December.

EGYPTIAN BELLE.

From J. M. Smith, of Greenville, Ill.

Fruit large, roundish flattened, yellowish white, striped, stained, and splashed with light and deep carmine. Flesh juicy, white, fine-grained, subacid. August. (Gar. Mon.)

EGYPTIAN RUSSET.

Bagby Russet.

From Southern Illinois, origin unknown. This Apple is much esteemed where known for its rich, high flavor, and as a good keeper. Some think it the best of all the russets. The tree forms an upright, symmetrical, round head, with grayish reddish brown, somewhat downy young shoots. Productive.

Fruit medium. Form roundish, approaching conical, slightly ribbed. Color golden yellow, netted and patched with russet over half or two-thirds of its surface, often with a cheek of crimson or fawn in the sun, and moderately sprinkled with brown dots. Stalk short and small. Cavity medium or rather broad. Calyx open or partially closed. Segments short. Basin medium. Flesh yellowish, tender, juicy, rich, slightly aromatic, pleasant subacid. Very good. December to March.

ELDON PIPPIN.

Fruit small, round, somewhat oblate, ribbed near the calyx, yellow

shaded or covered with crimson next the sun. Flesh yellowish, very juicy, sweet, rich, aromatic. December to April. (Hogg.)

ELFORD PIPPIN.

Hogg describes this as a dessert Apple of first quality. Tree a healthy vigorous grower and good bearer.

Fruit roundish, ribbed near the calyx, yellowish green, with markings of russet in the shade, red, and striped with darker red next the sun. Flesh yellowish, crisp, brisk, sugary, vinous. October, December.

ELICKE'S WINTER SWEET.

Origin, Lebanon Co., Pa. An upright grower and a good bearer.

Fruit above medium, obliquely depressed, yellow, striped and mottled with crimson. Flesh yellowish, a little coarse, tender, not very juicy, but very sweet, and excellent for apple butter. Good. December to January.

ELLIJAY.

From Clarksville, Ga.

Fruit large, oblique, roundish conic, pale yellow, often a blush red cheek in sun. Flesh white, rather tender, juicy, subacid. Hardly good. Core large and hollow. Most valued for cooking. November, December.

ELLIS.

From Connecticut. Small, roundish, greenish yellow, brown cheek. Flesh firm, juicy, pleasant, a long keeper. Good. April, May.

ELLSWORTH.

Miller's Seedling.

Originated in Columbia Co., N. Y., on the farm of John C. Miller.

Tree pretty vigorous growth, erect, young wood, much like Swaar in color, very productive.

Fruit medium, roundish, fine yellow, sometimes a shade of crimson in the sun. Nettings of russet and gray dots. Stalk long, slender. Cavity rather large, russeted. Calyx closed. Segments small, short, erect. Basin medium, slightly corrugated. Flesh white, firm, tender, juicy, rich, sprightly subacid. Very good or best. Core small. January to March.

EMPEROR.

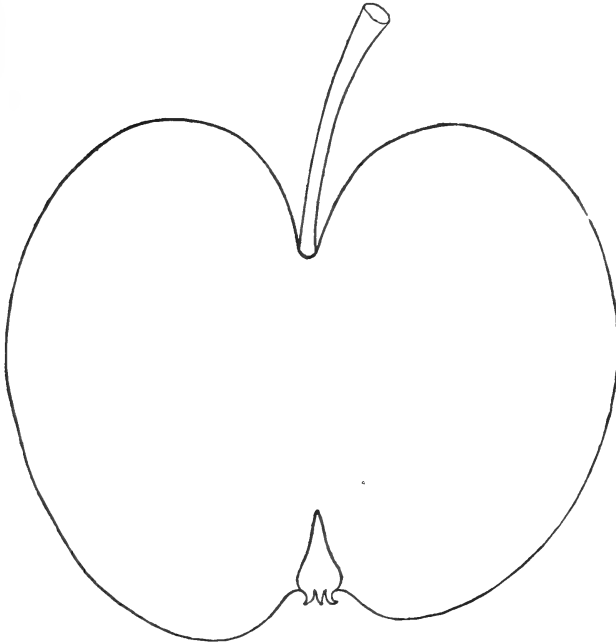
Described by Verry Aldrich in the *Prairie Farmer* as follows:—

Fruit medium, roundish, one-sided, orange striped and shaded with red on the sun side, covered with white specks. Stalk short and slender. Cavity deep. Flesh white, fine-grained, tender, juicy, pleasant, almost sweet.

ENE'S WINTER SWEET.

A Southern Apple, introduced by J. S. Downer, Elkton, Ky.

Fruit medium, oblate, greenish yellow, blushed in sun, russeted. Flesh yellow, fine-grained, sweet. Good. December.



Ellsworth.

ENFIELD PEARMAIN.

A moderate grower and a fair bearer.

Fruit below medium, nearly globular, deep red, sprinkled with minute dots. Stalk long and slender, in a large cavity, surrounded by thin russet. Calyx partially closed, in a broad, shallow basin. Flesh tender, fine-grained, juicy, with a pleasant, mild, rich flavor, resembling Seek-no-Further. Good. December to February.

ENGLISH BEAUTY.

Origin unknown.

Fruit large, roundish oblate, slightly conical, yellow, mostly over-spread, striped, shaded and splashed with crimson, and sprinkled with light and brown dots. Flesh whitish, tender, juicy, sprightly mild subacid. Almost very good. December to March.

ENGLISH CRAB.

Fruit small, oblate, yellow with dark red. Flesh deep yellow, mild subacid. Good. January.

ENGLISH GILLIFLOWER.

Origin unknown.

Fruit large, roundish oblate, approaching conic, slightly ribbed,

light yellow, splashed, striped, and shaded with crimson and thickly sprinkled with brown dots. Stalk very short. Cavity russeted. Calyx nearly closed. Basin abrupt. Flesh yellowish, tender, juicy, mild subacid. Almost very good. November, December.

ENGLISH GRANAT REINETTE.

Pomme Granate.

Hogg describes this as a first-rate German dessert Apple. Tree a medium grower and great bearer.

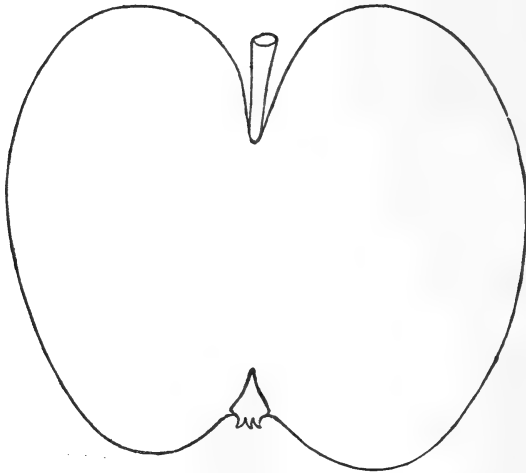
Fruit medium, roundish obovate, lemon yellow, two-thirds overwashed and striped with crimson. Flesh yellowish white, very fine, firm, crisp, juicy, very rich vinous, aromatic. December to March.

ENGLISH REINETTE.

Reinette d'Angleterre.

This is distinct from Grosse Reinette d'Angleterre, or from English Golden Pippin.

Fruit medium, roundish, inclining to conical, slightly ribbed, yellow shaded, marbled, and indistinctly splashed on the sunny side with light crimson. Stalk rather long. Calyx open. Flesh yellow, crisp, juicy, with a rather rich brisk subacid. Very good. December, January.



English Russet.

ENGLISH RUSSET.

Poughkeepsie Russet.

Po'keepsie Russet.

The English Russet is a valuable, long-keeping variety, extensively cultivated, and well known by this name, but which we have not been able to identify with any English sort. It is not fit for use until Feb-

ruary, and may be kept till July, which, together with its great productiveness and good flavor, renders it a very valuable market fruit.

The trees grow very straight, and form upright heads, and the wood is smooth and of a reddish brown.

Fruit of medium size, roundish, slightly conical, and very regularly formed. Skin pale greenish yellow, about two-thirds covered with russet, which is thickest near the stalk. Calyx small, closed, and set in an even, round basin, of moderate depth. Stalk rather small, projecting even with the base, and pretty deeply inserted in a narrow, smooth cavity. Flesh yellowish white, firm, crisp, with a pleasant, mild, slightly subacid flavor. Good. January to May.

The *English Russet* described by Warder is entirely distinct, being, as he describes, large, globular, flattened, somewhat one-sided. Surface uneven, green. In season from December to January.

ENGLISH SWEET.

Ramsdell's Sweet.	Ramsdell's Sweeting.	Hurlbut Sweet ?
Ramsdell's Red Pumpkin Sweet.	Red Pumpkin Sweet.	Avery Sweet.
Randall's Red Winter.		

This old variety is esteemed where grown for the large crops which it bears, and as a showy sweet apple for market, and profitable for stock feeding, as well as superior for cooking.

The tree is very vigorous, grows remarkably straight and upright, comes early into bearing, and yields every year enormously. Young shoots clear reddish brown, slightly grayish.

Fruit rather above medium size, oblong, regularly shaped, and tapering slightly towards the eye, dark red, dotted with fawn-colored specks, and covered with a blue bloom. Flesh yellowish, very tender and mellow, unusually sweet and rich. Good to very good. In weight the apple is light. October to February.

EPSY.

From Vermont. A handsome productive fruit, small, elongated conic, deep red, almost crimson. Flesh whitish, brisk subacid. Scarcely good. December, January.

EPTINGS PREMIUM.

Large, greenish, with red stripes. Flesh juicy and excellent. (Sumner's MS.)

EPTINGS RED WINTER.

Large, beautiful red, resembling Carolina Red June. Flesh yellow, with rich pine-apple flavor. Keeps well to Christmas. (Sumner's MS.)

ERIE SWEET.

From Erie, Pa.

Fruit medium, roundish oblate, whitish yellow. Flesh white, tender, juicy, mild, pleasant sweet. Good. September, October.

ESSEX PIPPIN.

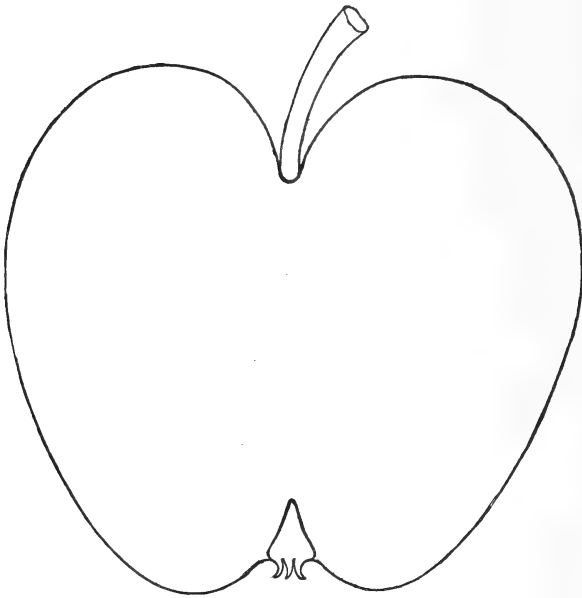
An English variety.

Fruit small, roundish oblate, yellowish green, tinge of red in the sun. Flesh yellowish, firm, crisp, brisk, sugary. October to February. (Hogg.)

ESOPUS SPITZENBURGH.

Æsopus Spitzenberg. Æsopus Spitzenberg.
True Spitzsburgh.

The Esopus Spitzsburgh is a handsome, truly delicious Apple, and is generally considered by all good judges equal to the Newtown Pippin, and unsurpassed as a dessert fruit by any other variety. It originated at Esopus, a famous apple district, originally settled by the Low Dutch, on the Hudson. But throughout the whole of New York it is considered the first of apples. The tree has rather slender shoots, and when in bearing has long and hanging limbs.



Esopus Spitzsburgh.

Fruit large, oblong, tapering roundly to the eye. Skin smooth, nearly covered with rich, lively red, dotted with distinct yellowish russet dots. On the shaded side is a yellowish ground with streaks and broken stripes of red. Stalk rather long—three-fourths of an inch—and slender, projecting beyond the base, and inserted in a wide cavity. Calyx small, and closed, set in a shallow basin, which is slightly furrowed. Flesh yellow, rather firm, crisp, juicy, with a delicious rich, brisk flavor. Best. Seeds in a hollow core. December to February.

ESTEN.

Origin, Rhode Island. Tree vigorous, productive.

Fruit large, roundish, slightly ribbed, smooth, yellow, sometimes with a blush. Dots large, green and light. Flesh yellowish, crisp, juicy, slightly aromatic, mild subacid. Good. November.

ETOILE.

Calville Etoile. Reinette Etoile.

Origin supposed Holland. Tree vigorous, very productive.

Fruit large, roundish oblate, rich red, with gray shade, and many gray dots. Flesh white, veined with red, tender, sugary, slightly acid. November to February. (Alb. Pom.)

EUSTIS.

Ben Apple.

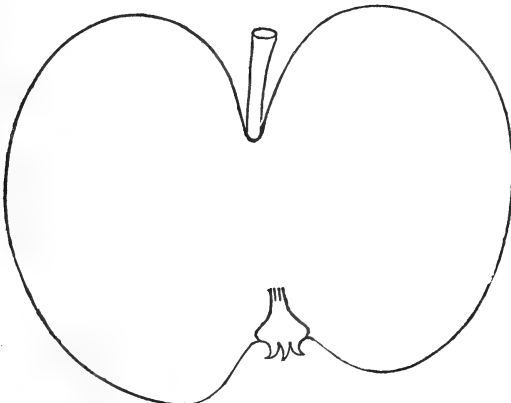
Origin, South Reading, Mass. Moderate grower, a good bearer.

Fruit rather large, roundish oblate, slightly conic, yellow, striped and shaded with fine red, and sprinkled with greenish dots. Stalk medium, inserted in a deep cavity, surrounded by russet. Calyx partially open. Basin narrow, rather deep. Flesh yellowish, firm, crisp, mild subacid. Very good. November to January.

EVENING PARTY.

Origin, Berks Co., Pa. Tree vigorous, roundish, upright spreading, with slender branches. Young shoots dark grayish brown, many small dots.

The fruit hangs well to the tree, and the foliage remains until quite late.



Evening Party.

Fruit small or medium, oblate, sides often unequal, yellow, chiefly shaded, splashed, and striped with red, becoming dark red in the sun,

pretty thickly studded with light dots, especially near the calyx. Stalk short, inserted in a round, deep, acute cavity, sometimes russeted. Calyx closed. Basin rather large and even. Flesh juicy, whitish, tender, crisp, with a brisk saccharine, somewhat vinous, aromatic flavor, an excellent dessert fruit. Very good. December and January.

EWALT.

Bullock's Pippin of some.

Origin, Bedford Co., Pa. Tree very vigorous, upright spreading.

Fruit large, roundish, approaching conic, obscurely ribbed, bright yellow, shades of crimson in the sun. Stalk short, stout. Cavity deep, irregular. Basin abrupt, deep, furrowed. Flesh white, tender, brisk subacid. Good to very good. November to March.

EYER'S GREENING.

Lindley describes this fruit as of middle size, somewhat round, pale green, tinged with brown in the sun. Flesh green, sweetish subacid. Culinary. November to March.

EXCEL.

Origin, Sharon, Conn. A strong grower and a good bearer.

Fruit large, oblate conic, yellowish, marbled, splashed, and shaded with red, some nettings and patches of russet. Flesh yellow, tender, juicy, brisk, subacid. Core large. Good to very good. December to February.

EXQUISITE.

Origin, orchard of A. G. Downing, Canton, Ill. Growth moderate, upright, and very productive.

Fruit below medium, oblate. Skin yellow, striped and marked with red. Stem short and small, surrounded by russet, in a deep, broad cavity. Calyx small, partially closed, set in a shallow basin. Flesh white, juicy, melting, with a very rich, vinous flavor, almost saccharine. Good to very good. A delightful apple for the table. September to November.

FAIL-ME-NEVER.

Neverfail.

A Scottish Apple for cooking purposes. Tree hardy and productive.

Fruit above medium, oblate, ribbed, red, becoming deep red in the sun. Flesh white, sugary. Good. November, March. (Lind.)

FAIRBANKS.

Origin, Winthrop, Maine.

Fruit medium, oblate conic, light yellow, striped with red, and patched with russet. Stem long. Cavity broad and shallow. Flesh yellowish, juicy, with a rich, vinous flavor. Good. September to October. (Me. P. S. R.)

FAIRFIELD SUMMER QUEEN.

Origin unknown.

Fruit medium, roundish oblate conic, obscurely ribbed, pale yellow, striped, splashed, and shaded with two shades of red. Stalk long, slender. Cavity large. Calyx closed. Basin uneven. Flesh yellowish, juicy, tender, brisk subacid, slightly aromatic. Very Good. Core small. September.

FAIR MAID.

From Pennsylvania.

Fruit rather large, roundish oblate, striped with carmine, subacid. Inferior.

FAIR MAID OF TAUNTON.

An English Apple.

Fruit small, roundish oblate, straw color, with faint red in the sun. Flesh yellowish white, tender, juicy, sweet. November to February. (Hogg.)

FAIR'S NONPAREIL.

Fruit small, roundish, yellow, with tinge of red in the sun. Flesh firm, crisp, juicy, vinous. November to February. (Hogg.)

FALLAWATER.

Falwalder.	Pim's Beauty of the West.	Winter Blush
Fornwalder.	Pound.	Green Mountain Pippin.
Tulpehocken.	Mountain Pippin.	Molly Whopper.
Pfarrer Walter.	Fall de Waldes.	Falder.
Baltimore, erroneously.	Brubacker.	Fallawalder.
	Fallawalder.	

A favorite Apple of Pennsylvania, of which State it is a native. Tree a strong grower and very productive.

Fruit very large, globular, inclining to conic. Skin yellowish green, shaded with dull red, and sprinkled with large gray dots. Stalk very short, inserted in a deep cavity. Calyx small and closed, set in a slightly plaited basin. Flesh greenish white, juicy, crisp, rather tender, pleasant, subacid flavor. Good. November, February.

FALL BUTTER.

There are dozens of this name. Warder describes one from Indiana as:

Fruit large, globular, greenish yellow. Flesh yellowish white, juicy, sweet. December, January.

FALL GREENING.

The original tree of this variety was found on the grounds of S. M. Van Wyck, Claverack, Columbia Co., N. Y. Tree a moderately vigorous grower, round-headed, almost pendent, very productive, valuable.

Fruit medium, roundish oblate, greenish yellow. Flesh greenish white, tender, pleasant, subacid. Good to very good. December to February. Tree a good grower and bearer, and sells well in market.

There is another *Fall Greening*, which is more oblate in form. Similar color. Flesh whitish yellow, juicy, sprightly subacid. September to November. The tree a poor grower.

FALL HARVEY.

A fine large fall fruit from Essex Co., Mass., highly esteemed in that neighborhood. We do not think it comparable to the Fall Pippin.

Fruit large, roundish, a little flattened, obscurely ribbed or irregular about the stalk, which is rather slender, an inch long, set in a wide, deep cavity. Calyx closed, small, in a rather shallow corrugated basin. Skin pale straw yellow, with a few scattered dots. Flesh white, juicy, crisp, with a rich, good flavor. Good to very good. October and November.

FALL JENNETING.

Summer Jenneting.

Tree vigorous, and very productive.

Fruit large, oblate, slightly conic, almost ribbed, pale greenish yellow, with a blush. Flesh whitish, tender, juicy, brisk subacid. Good. September and October.

FALL LIMBERTWIG.

Origin unknown.

Fruit medium, roundish oblate conic, pale yellow, shaded and splashed with red. Flesh whitish, tender, juicy, brisk subacid. Good. November.

FALL ORANGE.

Orange.	Holden.	Hogpen.	White Graft of Wis.
Holden Pippin.	Jones' Pippin.	Red Cheek.	Long Island.

Origin, Holden, Mass. A very strong, erect grower, good bearer, and hardy. Young shoots smooth, dark brownish red.

Fruit fair, large, roundish, pale yellow, sometimes with a dull red cheek and sprinkled with brownish dots. Stalk short, inserted in a deep, narrow cavity, very slightly surrounded by russet. Calyx large, partially closed, basin rather deep, narrow. Flesh white, tender, juicy, subacid. Too acid for a dessert, good for cooking. October, November.

FALL PEARMAIN.

Tree thrifty, moderate bearer. From Connecticut.

Fruit fair and handsome, medium, roundish conic, slightly angular. Skin yellow, striped, splashed, and shaded with crimson, and sprinkled with gray and green dots. Stalk medium, in a deep, slightly russeted cavity. Calyx partially closed. Basin rather deep, slightly corrugated. Flesh white, tender, juicy, subacid, rather rich flavor. Good to very good. September, October.

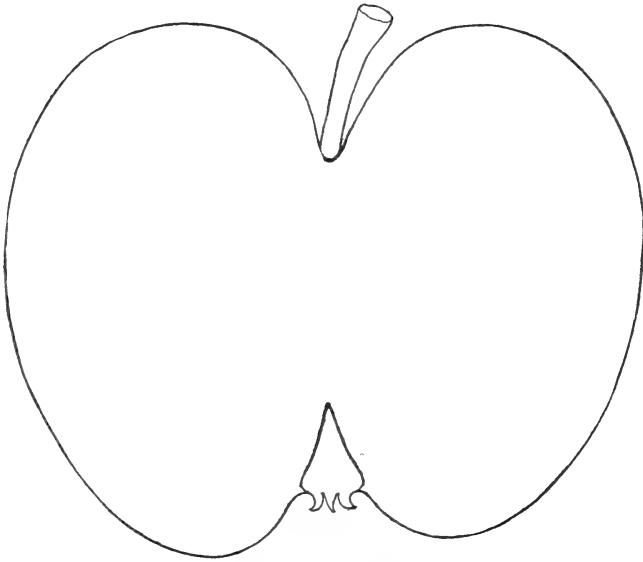
FALL PIPPIN.

York Pippin.
Pound Pippin.

Episcopal.
Golden Pippin, erroneously. Pound Royal of some.
Cathead, incorrectly.

Philadelphia Pippin.

The Fall Pippin is, we think, decidedly an American variety. It is very probably a seedling raised in this country from the *White Span-*



Fall Pippin.

ish Reinette, or the Holland pippin, both of which it so much resembles, and from which it, in fact, differs most strongly in the season of maturity. The Fall Pippin is a noble fruit, and is considered the first of autumn apples in the Middle States, where its beauty, large size, and its delicious flavor for the table or for cooking, render it very popular.

The tree is a very vigorous, strong grower, upright spreading. Young shoots reddish brown.

Fruit very large, roundish, generally a little flattened, pretty regular, sometimes with obscure ribs at the eye. Stalk rather long, three-fourths of an inch, projecting considerably beyond the fruit (which distinguishes it from the Holland Pippin), set in a rather small, shallow, round cavity. Calyx open, not very large, rather deeply sunk in a round, narrow basin. Skin smooth, yellowish green, becoming a fine yellow, with often a tinge of brownish blush on one side, and with a few scattered dots. Flesh white, very tender and mellow, with a rich, aromatic flavor. Very good to best. October to December.

FALL SPITZENBURGH.

From Vermont. Tree a fair grower and good bearer.

Fruit medium, roundish conic, red striped. Flesh tender, juicy, pleasant subacid. Good. October, November.

FALL SEEK-NO-FURTHER.

Winter Seek-no-Further.

Origin unknown. Tree much the habit of the Rhode Island Greening, thrifty and productive.

Fruit very large, oblate, yellow, mostly shaded with red, striped with darker red, and covered with numerous grayish dots. Flesh whitish, tender, moderately juicy, with a pleasant subacid flavor. Good. October and November.

There is another apple under name of Fall Seek-no-Further which we have received from Iowa, of medium size, roundish, greenish, with slight blush in the sun. Flesh white, tender, mild, subacid. Very good and keeps till March.

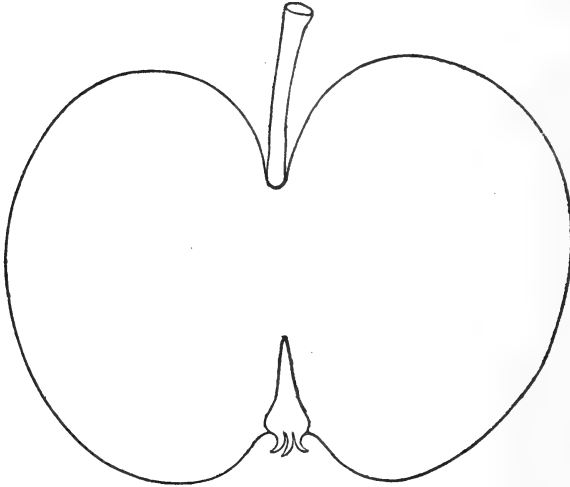
FALL WINE.

Sweet Wine.
Ohio Wine.

Sharpe's Spice.
Uncle Sam's best.

Musk Spice.
Hower or House.

Origin unknown, probably an old Eastern fruit called "Wine" or "Sweet Wine," but not now much cultivated on account of the fruit being defective. In the rich Western soils it thrives admirably, producing fine fruit, yet in a few localities they complain of its being knurly. Tree healthy, but of rather slender growth, bearing moderate crops annually.



Fall Wine.

Fruit above medium. Stem rather long, slender, in a broad, deep cavity, surrounded by clear waxen yellow. Calyx partially closed in a broad, deep, corrugated basin. Skin striped and shaded with red,

on a light ground, with numerous russet dots. Flesh yellowish, juicy, tender, with a rich, aromatic, *very* mild, subacid flavor, almost sweet. Very good to best. September, November.

FALL WINESAP.

A Western variety, the origin of which is unknown.

Tree a free clean grower, moderately spreading, somewhat drooping as the tree acquires age, productive and an early bearer.

Fruit medium, roundish, sometimes slightly conical, yellowish green, with considerable blush in the sun. Flesh white, fine-grained, tender, juicy, subacid. Good. October, December.

FAMA GUSTA.

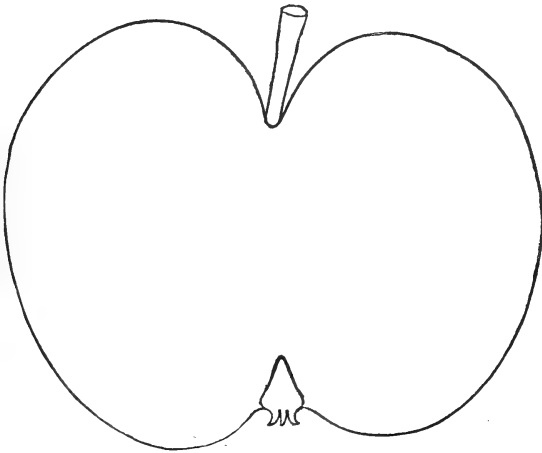
An old English sort. Tree vigorous, straggling in habit.

Fruit medium to large, roundish oblong conical, deep yellow, faint red in sun. Flesh yellowish, tender, sweet. Good for cooking. November, December.

FAMEUSE.

Pomme de Neige. Sanguineus. Snow Chimney. Snow.

A very celebrated Canada fruit (probably an old French variety), which has its name from the snow-white color of its flesh, or, as some say, from the village from whence it was first taken to England. It is an excellent,



Fameuse.

productive, autumn apple, and is especially valuable in northern latitudes.

Tree moderately vigorous, round-headed, hardy. Young shoots reddish brown.

Fruit of medium size, roundish, somewhat flattened. Skin with a

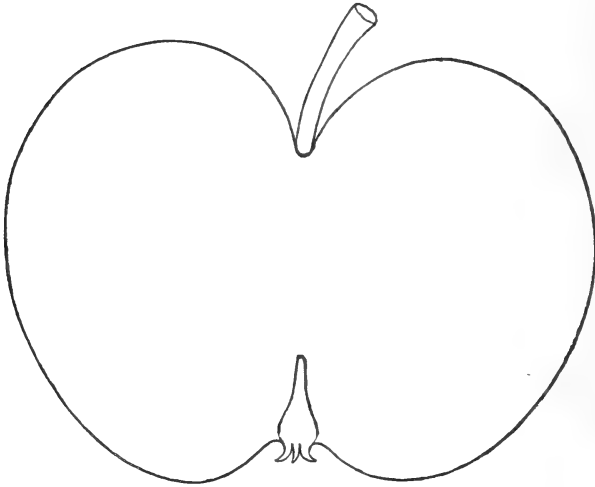
ground of pale greenish yellow, mixed with faint streaks of pale red on the shady side, but marked with blotches and short stripes of darker red, and becoming a fine deep red in the sun. Stalk quite slender, half an inch long, planted in a narrow funnel-shaped cavity. Calyx small, and set in a shallow, rather narrow basin. Flesh remarkably white, very tender, juicy, and with a slight perfume. Very good, almost best. Ripe in October and November. A regular bearer and a handsome dessert fruit.

There is a variety under name of *Striped Fameuse*, claimed to be distinct, the fruit being more striped and less highly colored.

FAMILY.

McLoud's Family.

A native of Georgia. Tree a fine regular grower and productive. Fruit medium, oblate conical, yellowish, shaded, striped, and splashed



Family.

with dull red over half or more of its surface, thickly sprinkled with large light dots. Stalk short and small. Cavity pretty large, slightly russeted. Calyx closed. Segments medium, partially recurved. Basin medium, a little wrinkled. Flesh white, tender, juicy, mild, pleasant, subacid. Very good. August, September.

FANCHER.

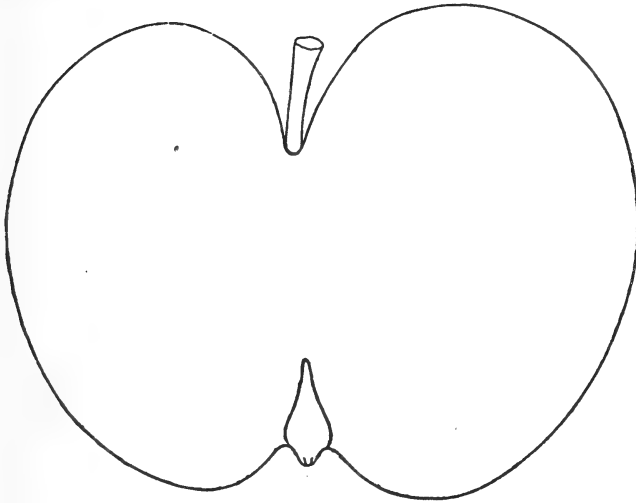
Origin unknown.

Fruit large to very large, globular, regular. Surface smooth, yellow, blushed. Flesh white, fine-grained breaking, juicy, very sweet. Good to very good. Baking. September, October. (Warder.)

FANNY.

Originated near Strasburgh, Lancaster Co., Pa., on the farm formerly owned by Jacob Beam. Tree vigorous, spreading, very productive. Young wood dark grayish purple, two shades darker than Red Astrachan, and grayish.

Fruit large, roundish oblate, slightly conic, deep rich crimson red,



Fanny.

moderately sprinkled with light dots. Stalk short, small. Cavity large, deep. Calyx closed. Segments short. Flesh white, a little stained next the skin, tender, juicy, pleasant subacid. Very good. Core small. August. A new Apple of great promise as a market sort.

FARLEIGH PIPPIN.

Farley Pippin.

Originated at Farleigh in Kent, England. Tree strong, vigorous, upright, hardy, productive.

Fruit medium, oblong conical, ribbed, yellowish, brownish red in the sun. Flesh greenish, firm, rich, and sugary. January to April. (Lind.)

FARLEY'S RED.

A native of Oldham, Ky. Tree a moderate grower, hardy and productive.

Fruit roundish, inclining to conic. Skin yellowish, shaded and striped with deep crimson, and specked with light dots. Flesh whitish, very firm, crisp, juicy, with a pleasant vinous flavor. Good. January, April.

FATHER.

A seedling originated about 1795 by General Amos Hall, in West Bloomfield, Ontario Co., N. Y. Tree a thrifty, upright grower, forming a handsome head, a good and constant bearer.

Fruit medium, nearly oblate, more or less ribbed, greenish yellow. Flesh whitish, very tender and juicy, subacid. Good. November, December.

FAUST

Faust's Winter.

Foust.

Origin, North Carolina.

Fruit medium, roundish, yellow, sometimes faintly shaded with red in the sun, and thinly sprinkled with light dots. Stalk short, stout. Calyx nearly closed. Flesh whitish yellow, moderately juicy, pleasant subacid. Good, almost very good. November, December.

FAVORITE.

From Kentucky.

Fruit small, roundish, yellow, striped and splashed with red. Flesh yellow, juicy, mild subacid. Good. November, January. (Elliott.)

FAY'S RUSSET.

Origin, Bennington, Vt., on the farm of Mr. Fay. Tree moderate grower and very productive.

Fruit rather below medium size, oblate conic. Color light yellow, mostly covered with russet, having a crimson cheek obscurely striped. Stalk short and small, inserted in a moderate acute cavity. Calyx partially closed. Segments long, in a shallow somewhat furrowed basin. Flesh white, tender, sprightly, pleasantly subacid. Very good. April, June. Core small.

FEARNS PIPPIN.

Clifton Nonsuch.

Ferris Pippin.

Florence Pippin.

An English variety, not as desirable here as there. Tree upright, vigorous, hardy, and productive.

Fruit medium, roundish oblate, greenish yellow, becoming red in the sun. Flesh yellowish white, firm, juicy, rich, and pleasant. November, March. (Lind.)

FEDERAL PEARMAIN.

An old English sort, once prized for the dessert.

Fruit small, roundish conical, yellowish, with red and streaks of red in the sun, patches and dots of russet. Flesh fine, delicate, very juicy, rich sugary, vinous. December to March. (Hogg.)

FELL'S WINTER SWEET.

A variety received from F. K. Phoenix, of Illinois. Origin unknown. Tree a great bearer.

Fruit medium, roundish, greenish yellow, with cheek of brown crimson in the sun. Flesh white, mild, rich, sweet. Good. Valuable for cooking and keeping only.

FENLEY.

Finley. Findley. Horse, erroneously.

This Apple originated in Kentucky, and was first brought into notice by the gentleman after whose name it has been called. It is grown to considerable extent South and West, and counted valuable, especially for kitchen use. Tree vigorous, upright, and productive. Young wood dark reddish, grayish, downy.

Fruit large, oblate, slightly conic, pale yellow or yellowish, sprinkled with a few brown dots. Stalk short. Cavity broad, russeted. Calyx closed. Basin pretty large. Flesh yellow, crisp, juicy, pleasant subacid. Good to very good. September.

FENOUILLET GRIS.

Fruit small, roundish. Skin light russet on yellow ground. Flesh firm, with a saccharine, perfumed flavor. Good. December to February.

FENOUILLET JAUNE.

Embroidered Pippin. Drap d'Or. Pomme de Caractère.

A French fruit, which has not proved of much value here.

Fruit small, roundish, yellow gray russet network. Flesh white, firm, aromatic flavor. Good. October to March.

FENOUILLET ROUGE.

Bardin. Court-pendu Gris.

Fruit small, roundish. Skin rough, grayish, with dark brownish red. Flesh firm, sugary. Good. October, January.

FERDINAND.

A seedling of Pomaria, S. C. Tree vigorous, upright.

Fruit large, oblate, deep orange yellow, moderately sprinkled with large brown dots. Stalk short. Calyx large, closed. Flesh yellow, moderately juicy, tender, mild subacid. Good to very good. November to March.

FERRIS.

Rhode Island Seek no Further. Westchester Seek no Further.

An old variety of unknown origin, brought into Westchester Co., N. Y., about sixty years ago, where it is quite extensively grown and considered a profitable market apple. The tree makes an upright, round, rather open head, a great bearer every other year, and moderate bearer in alternate years.

Fruit large, oblate, inclining to conic, whitish green, shaded, splashed, and striped over most of the surface with shades of crimson. Flesh

white, tender, juicy, refreshing, vinous, mild subacid. Very good. November, December.

FERRIS.

Origin, Wilmington, Del., where its value is mainly for its keeping qualities and productiveness.

Fruit below medium, roundish oblate, slightly conic, whitish, shaded and indistinctly splashed with dark red. Flesh greenish white, rather firm, juicy, subacid, good. March, April.

FETT.

Fat Apple.

Origin unknown.

Fruit small to medium, roundish oblate, red shaded and striped with crimson. Stem slender. Cavity almost closed, or appearing as if full. Flesh white, sometimes stained under the skin, crisp, subacid. Good. January.

FIELD.

Originated in York Co., Pa. Tree an upright grower, productive.

Fruit medium, roundish, whitish shaded, splashed, and striped with crimson. Flesh yellowish, crisp, juicy, pleasant, mild subacid, half spicy quince-like flavor. Good. November, January.

FINK.

Fink's Seedling.

Origin, farm of Joseph Fink, Somerset, O. Tree a strong, vigorous, upright grower and a profuse bearer.

Fruit small, oblate, whitish yellow, with a crimson cheek in the sun. Flesh whitish, fine-grained, compact, moderately pleasant, aromatic, subacid. Good to very good. A long keeper, often the fruit of two years' growth being shown at the same time.

FIRST AND LAST.

An English culinary Apple.

Fruit medium, roundish, narrowing toward each end, yellow with crimson in the sun, and brown russet. Flesh yellowish, tender, sweet, brisk, spicy aroma. September to May. (Hogg.)

FISHKILL BEAUTY.

Origin, Fishkill, N. Y. Tree vigorous, spreading.

Fruit medium or above, roundish oblate, whitish yellow, bluish in the sun. Flesh white, very tender, juicy, mild subacid. Good. September, October. Apt to decay on the tree.

FISH'S SEEDLING.

Origin, Keene, New Hampshire. Tree vigorous and productive, highly esteemed in its locality

Fruit medium, oblate, oblique, deep red on the sunny side, indistinctly striped with darker red and yellow, and sprinkled with yellow dots. Flesh greenish white, tender, melting, vinous, saccharine flavor. Good. October, November.

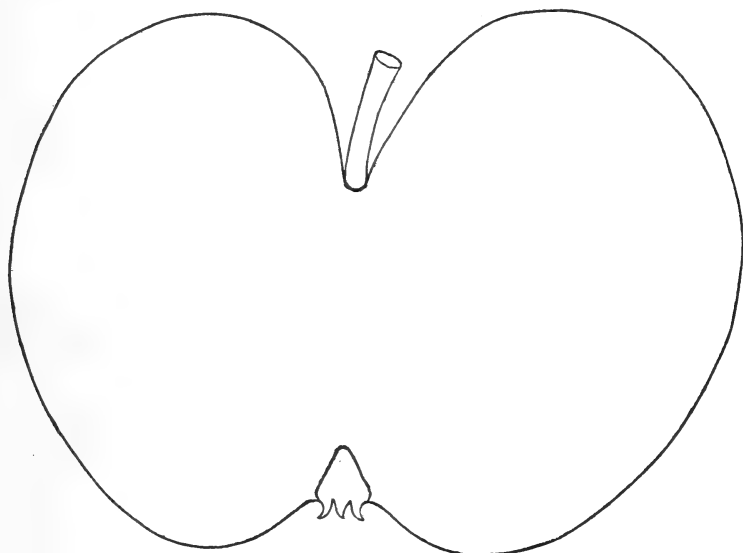
FISKE.

Origin unknown. Tree productive.

Fruit large, roundish oblate, pale yellow, shaded, and faintly splashed with shades of crimson. Flesh white, crisp, tender, juicy, pleasant, subacid. Good to very good. December to March.

FLAKE'S FALL.

Originated with the late Col. Flake, of Mercer, Pa., where it is esteemed a valuable and profitable apple, either for market or the table. Tree a moderate grower, rather upright, a good bearer.



Flake's Fall.

Fruit large, form oblate, slightly conic. Color yellowish, over-spread, shaded, striped, and splashed with light and dark crimson, becoming very dark in the sun, thickly sprinkled with light and russet dots, some with dark centre. Stalk very short, and rather stout. Cavity large, deep, russeted, the splashes and nettings extending outside. Calyx open, or partially closed. Segments large, to a point, and rather separated. Basin medium, uneven. Flesh white, tender, moderately juicy, mild subacid, peculiarly aromatic. Core small. Very good. October, November.

FLANDERS PIPPIN.

From Berkshire, England.

Fruit medium, oblate, ribbed, greenish yellow, dull red in the sun. Flesh white, tender, juicy, brisk subacid. Cooking. October, November. (Hogg.)

FLANDERS REINETTE.

Reinette de Flandre.

Tree vigorous, productive.

Fruit medium, roundish, yellow, with grayish red in the sun and near the stalk. Flesh yellowish white, firm, sugary. December to January. (Alb. Pom.)

FLAT PIPPIN.

Needles.

Origin, Ohio.

Fruit large, oblate, ribbed, greenish white, tinge of red in the sun. Flesh whitish, juicy, subacid. Good. November, December.

FLAT SWEET.

An old Eastern fruit, and much valued where known.

Fruit large, oblate, slightly conic, yellow, sometimes with sunny cheek, and slight russet. Flesh white, tender, juicy, with a fine, rich, saccharine flavor. Good. Valued for baking. October to March.

FLAT SWEET.

From Illinois.

Fruit medium or below, oblate, yellow, splashed, striped, and shaded with light and dark crimson over all, few large light dots. Stalk short. Flesh white, stained next the skin, firm, juicy, mild subacid, scarcely sweet. Good. September.

FLEET'S NONPAREIL.

Origin unknown.

Fruit medium, oblate, slightly conic, pale yellow or whitish. Flesh white, crisp, juicy, brisk subacid. Good for cooking. September.

FLEINER.

Of German origin. Tree vigorous, upright, productive. Wood dull reddish brown, slightly grayish.

Fruit medium, oblong conical, whitish yellow, shaded with crimson in sun. Flesh white, tender, juicy, brisk sharp subacid. Good. October, November.

FLORA.

A Southern Apple.

Fruit medium, oblate, yellowish, shaded, splashed, and mottled with crimson. Flesh whitish, mild subacid. Hardly good. August.

FLORY.

Flory's Bellflower. Sheep Shire.

Origin, Montgomery Co., Ohio. A new variety, highly regarded in the vicinity of its origin. Tree upright grower, abundant bearer.

Fruit medium, roundish conical, rich yellow, with small patches of russet and minute raised russet dots. Flesh yellowish, tender, moderately juicy, subacid. Good. October, November.

FLOWER OF KENT.

A large and handsome English Apple, chiefly valued for baking and kitchen use.

Fruit quite large, roundish conic, tawny yellow, washed with dull red, with occasionally a few stripes of brighter red. Flesh greenish yellow, abounding with a lively subacid juice. Good cooking. October to January.

FLUSHING SPITZENBURGH.

This variety has been confounded with the Esopus Spitzenburgh, but is really quite distinct. The tree makes strong reddish brown shoots, different from the slender yellowish ones of that sort.

The fruit is roundish conical. Stalk set in a narrow cavity projecting beyond the fruit. Skin nearly covered with red, on a greenish yellow ground, dotted with large fawn spots, and coated with a slight bloom. Calyx small, in an even basin. Flesh white, juicy, crisp, nearly sweet, and of pleasant flavor, but without the brisk richness or yellow color of the Esopus Spitzenburgh. Good. October to February.

FOCHT.

A seedling of Lebanon Co., Pa. Tree forms a low open head, productive.

Fruit large, oblate, slightly conic, pale yellow, sometimes with a blush. Flesh white, tender, juicy, good, subacid. October, December. Excellent for culinary purposes.

FOOTE'S NONPAREIL.

Origin, farm of Jonathan Foote, Lee, Mass. Tree thrifty, vigorous, spreading, an annual bearer.

Fruit small, oblong conic truncated, yellow shaded and indistinctly splashed with crimson. Flesh firm, juicy, pleasant aromatic subacid. Very good. Core large. November.

FORANGE.

Origin, Fairfield Co., Ohio. Tree good grower, round head, good bearer.

Fruit large, pale yellow. Flesh white, fine-grained, rich sweet. Good. September.

FORD APPLE.

Origin, farm of David Ford, Canaan, Columbia Co., N. Y.

Fruit large, roundish, slightly conical. Color rich yellow. Flesh yellowish white, solid, moderately tender, with a high, rich, rather acid flavor. Good. October, January.

FOREST.

Red Codlin.

This variety we received from J. S. Foster, New Hartford, N. Y., who does not claim it as original, but that it is probably a foreigner. We have not been able to identify it with any known sort. Tree of upright growth, very hardy, and an annual bearer.

Fruit above medium, roundish oblong conical, often ribbed, yellow, mostly overspread, shaded, splashed, and striped with faint reddish crimson, and many large light dots. Stalk rather short. Cavity deep, irregular. Calyx small, closed. Basin small, abrupt, furrowed. Flesh yellow, crisp, tender, juicy, rich, pleasant, slightly aromatic, subacid, almost sweet. Core small. Very good. December to March.

FOREST STYRE.

Styre. Stire.

A cider fruit, from Gloucestershire, England. Tree upright, willow-like in growth. Fruit small, roundish oblate, pale yellow, bluish in sun. Flesh firm, brisk acid. (Lind.)

FORGE.

Origin, Sussex Co., England. Tree strong, stocky, short-jointed, forming a spreading open head, productive.

Fruit small to medium, roundish oblate, obscurely ribbed, whitish yellow, overspread, shaded, splashed, striped, and mottled with red. Flesh yellowish white, tender, juicy, pleasant, subacid. Very good. October, December.

FORMAN'S CREW.

An old dessert Apple, originated in Glamorganshire, England. Tree healthy, upright. Young wood reddish chestnut, downy.

Fruit below medium, oblate conic, yellowish green, brownish in sun. Flesh greenish yellow, juicy, rich subacid. November, February. (Lind.)

FORT MIAMI.

Origin near Fort Miami, Ohio. Tree thrifty, healthy, productive, but not an early bearer.

Fruit medium, roundish oblong conic, truncated, pale yellow with a brownish tinge, considerably russeted in the sun. Stalk rather short. Cavity medium, acute, deep. Calyx open. Basin abrupt, corrugated. Flesh yellowish, fine, crisp, juicy, rather rich subacid, aromatic. Very good. March to May.

FOSTER SWEET.

Origin unknown. Introduced by J. W. Foster, Dorchester, Mass.

Fruit medium, roundish oblate, slightly conic, obscurely ribbed, whitish yellow, shaded with dark red and stripes and splashes in the sun, few light dots. Stalk short. Cavity small. Calyx closed. Basin rather deep. Flesh whitish, juicy, tender, mild subacid, almost sweet. Good to very good. Core medium. September.

FOULDON PEARMAIN.

Horrex's Pearmain.

Origin, Norfolk, England.

Fruit medium, roundish, pale yellow, blush in the sun. Flesh yellowish white, firm, crisp, brisk, sharp subacid. November to March. (Lind.)

FOUNDLING.

Shirley.

Groton.

Origin, Groton, Mass. Tree moderately vigorous, spreading, productive.

Fruit above medium, roundish oblate, inclining to conic. Color yellowish green, striped and shaded with deep rich red. Stalk short, slender, in a large, somewhat furrowed cavity. Calyx closed. Basin small, furrowed. Flesh yellow, tender, juicy, with a pleasant, rich vinous aroma. Very good. August, September.

FOURTH OF JULY.

Siberian August.

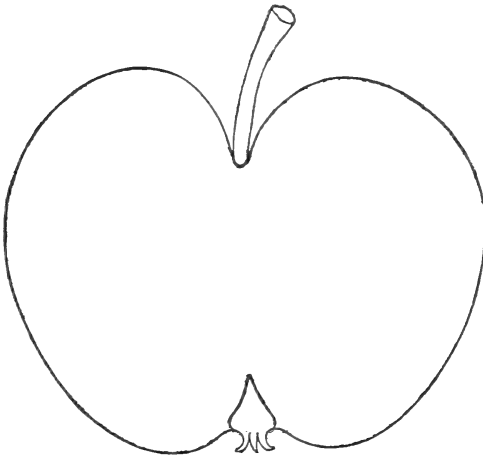
Tetofsky, erroneously.

McAdow's June.

Stewart's Nonpareil?

August Apple.

A German Apple, introduced by C. F. Jaeger, of Columbus, Ohio.



Fourth of July.

Valuable mainly for its hardiness and early maturity as a cooking or market variety. Tree a strong upright grower, forming a fine head. Young shoots long dark reddish brown.

Fruit medium or below, roundish oblate conical, slightly ribbed, whitish yellow, covered with a thin whitish bloom, and striped and splashed with bright red, large light dots. Stalk rather short and slender, often with bracts. Cavity medium, regular. Calyx closed. Segments rather long, generally recurved. Basin small, slightly uneven. Flesh white, juicy, sprightly, brisk subacid. Good. Core small. July. In fruit this closely resembles the Tetofsky, but the color of the wood, habit of growth, and foliage of old trees render its distinctiveness plain.

FOX-WHELP.

An old English cider Apple.

Fruit medium, roundish, ribbed at crown, yellow and red mixed, and streaked. Flesh firm. October, November. (Lind.)

FRAISE.

Of French origin. Tree moderately vigorous, productive.

Fruit small, roundish conical, yellow, mostly overspread, and washed with bright red. Flesh fine-grained, tender, subacid. (Soc. V. M.)

FRAMBOISE.

Framboos. Calville Rouge d'Automne, incorrectly.

Of German origin.

Fruit medium to large, roundish oblong, truncated, somewhat ribbed, greenish yellow, spotted and striped with shades of bright and deep red, much red in sun. Flesh white, fine, tender, mellow, juicy, sugary. September. (An. Pom.)

FRANCHOT.

Originated in Otsego Co., N. Y. Tree productive.

Fruit medium, roundish conical, yellow, shaded and splashed with red. Flesh yellowish, juicy, crisp, pleasant, aromatic. Good. October to January.

FRANKLIN'S GOLDEN PIPPIN.

Sudlow's Fall Pippin.

Dr. Hogg says: This is an American Apple, and was introduced into England by John Sudlow.

Fruit of medium size, roundish, slightly conic, very regular in shape, rather broadest at the base, deep yellow, freckled with numerous dark spots. Flesh pale yellow, crisp, juicy, rich subacid. Good to very good. The tree grows freely, and forms an upright head. October.

Under the name of *Franklin Golden Pippin* we have received an apple from Illinois, and now somewhat grown there, which is quite distinct from the above. It was introduced West from Pennsylvania, under name of *Golden Pippin*, but in its new locality has had attached, by whom we know not, the prefix of Franklin. There are so many Golden Pippins that it is difficult to decide which shall be entitled to priority of name.

Fruit medium, roundish conical, slightly ribbed, pale lemon yellow, moderately sprinkled with light and gray dots. Stalk short, slender. Cavity deep. Calyx firmly closed. Basin corrugated. Flesh yellowish, tender, moderately juicy, mild subacid. Very good. November, December.

FREEMAN.

Origin, New Jersey. Tree productive.

Fruit medium, ovate truncated conical, mottled and splashed with red. Flesh white, often stained next the skin, tender, slightly subacid, nearly sweet. Good to very good. Valued mainly as a late keeper.

FREEZE AND THAW.

Of Pennsylvania origin.

Fruit medium, oblate, slightly conic, light yellow, with shades and splashes of red. Flesh whitish, rather firm, subacid. Poor. November to February.

FREMONT PIPPIN.

Originated on the farm of James Armitage, Soleberry, Pa.

Fruit medium, roundish conical, ribbed, lemon yellow, slightly shaded with crimson in the sun. Stalk long. Cavity deep. Calyx small, closed. Basin small. Flesh white, crisp, juicy, brisk subacid. Very good. Core medium. January, February.

FRENCH.

An old New England variety, origin unknown.

Fruit medium to large, oblate, slightly conical, yellow, striped and splashed with red. Flesh yellow, crisp, rich acid. Good. November.

FRENCH BELLFLOWER.

Bellefleur de France. Double Bellefleur.
Dobbel Bellefleur.

A French Apple, described in the Annals of Pomology as:—

Fruit very large, roundish, slightly conical, yellowish, with carmine red cheek in the sun. Flesh yellowish white, half tender, melting, sweet, subacid.

FRENCH CRAB.

Ronalds describes this as follows: Tree very hardy, somewhat pendent in its growth, and bears well. A long keeper.

Fruit above medium, globular, green, becoming yellow at maturity. Flesh firm, pleasant, brisk.

FRENCH NONPAREIL.

Origin unknown. Tree vigorous, moderately productive.

Fruit medium, roundish oblate, sides unequal, greenish yellow, shaded, splashed, and marbled with red. Flesh whitish, crisp, juicy, pleasant, mild subacid. Good to very good. Core small. October, November.

FRENCH PIPPIN.

Of unknown origin. Tree hardy and vigorous, with dark reddish brown shoots.

Fruit rather large, roundish oblate, greenish yellow, with a faint dull cheek, thinly sprinkled with large brown dots, and traces of russet. Flesh yellowish, tender, pleasant, subacid. Good. Core small. October, January.

Quite distinct from Newark or French Pippin, which has slender branches. There are several apples under name of French Pippin, and it is difficult to decide which has priority to the name, except as connected with the oldest description.

FRENCH REINETTE.

Reinette Franche.	Reinette Blanche.	Weisse Reinette.
Reinette Blanche, dite Prime.	Franz Rennette.	Französische Edelreinette.
Reinette de Normandy.		

An old French Apple described by various authors, valued mainly as a long keeper. Coxe says the tree is handsome, of vigorous growth and an abundant bearer.

Fruit large, roundish oblong conical, truncated, yellow, with some russet, and red in sun. Flesh firm, yellowish white, rich and sprightly subacid.

FRENCH RUSSET.

French Pippin.

This old Apple is described in Ronalds as a sauce or cooking fruit of medium size, globular, yellowish, with faint red in the sun, considerably russeted. Flesh white, tender, subacid. November, January.

FRENCH'S SWEET.

Origin, farm of B. V. French, Braintree, Mass. Tree very productive.

Fruit above medium, roundish oblate, yellow, with a shade of brown in the sun. Flesh yellowish, crisp, moderately juicy, compact, rich, sweet. Valued for cooking. October, November.

FRIAR.

An English cider Apple, described by Hogg as of good size, somewhat conical, greenish, with dull red in the sun. Tree vigorous and productive.

FRISLAND REINETTE.

Reinette de Frisland.

Of German origin, described in the Album of Pomology. Tree vigorous, productive.

Fruit large, roundish oblate conical, bright yellow, brownish red in the sun, reddish gray near the stalk. Flesh white, firm, agreeable, subacid. December to January.

FRONCLIN.

Originated in Lancaster Co., Pa., where the original tree is supposed to be over one hundred years old. It is a rapid grower, bearing profusely even when young, but the fruit is rather too acid to please many tastes.

Fruit below medium, oblate, whitish, shaded and splashed with rich red. Flesh yellowish white, tender, juicy, sharp subacid. Good. September, November.

FRONT DOOR.

From Michigan, origin unknown.

Fruit medium to large, oblate, yellow, striped and splashed with red. Flesh whitish, tender, juicy, subacid. Good. September.

FULLERTON SWEET.

Origin unknown, found in the orchard of William Fullerton, Orange Co., N. Y. It much resembles the Autumn Sweet Bough.

Fruit below medium, roundish conical, pale yellow, with a few brown dots. Flesh white, juicy, tender, honeyed sweet. Very good. Core small. October, November.

FULTON.

A Western fruit, originated in the orchard or nursery of A. G. Downing, Canton, Fulton Co., Ill., a vigorous grower, hardy, regular in form, an annual and productive bearer. Young shoots slender, clear light reddish brown.

Size about medium, oblate, light yellow, sprinkled with green or gray dots, having a blush on the sunny side. Stalk three-fourths of an inch, rather slender, inserted in a broad deep cavity. Calyx large, open. Segments small, recurved, in a pretty large basin. Flesh yellowish, juicy, tender, mild subacid, almost sweet. Good to very good. Core small. November to February.

FULTON STRAWBERRY.

Origin same as the Fulton. Tree vigorous, stout, spreading grower, hardy, does not come early into bearing. Young wood grayish brown, slightly downy.

Fruit medium, oblate, whitish, mostly overspread, striped, splashed, and mottled with shades of red. Flesh whitish, tinged with pink, juicy, pleasant subacid. Good. Core small. September.

FULWOOD.

Green Fulwood.

Lindley and Hogg both describe this culinary Apple as large, roundish, ribbed, green, with broken stripes of dull red in sun. Flesh greenish white, firm, crisp, brisk acid. November to March.

There is also a *White Fulwood* described which is probably identical with the above.

GABRIEL.

Ladies' Blush.

Tree of rather slender growth, productive.

Fruit medium, roundish oblate, whitish green, shaded and splashed with crimson, and sprinkled with gray dots. Stalk medium, inserted in a cavity of moderate depth. Calyx partially closed, set in a moderate uneven basin. Flesh yellowish, tender, juicy, rich subacid. Core small. Good to very good. October and November.

GAESDONKER GOLD REINETTE.

A German dessert Apple.

Fruit below medium, oblate, golden yellow, reddish cheek in sun, and some russet. Calyx partially closed, with long, pointed segments. Flesh yellowish, fine, firm, juicy, rich aromatic subacid. December to March. (Hogg.)

GANGES.

Fruit pretty large, oblong, green, with red in the sun. Flesh yellowish, subacid. Cooking. (Lind.)

GARDEN.

Originated with Hezekiah Ellis, in Spottsylvania Co., Va.

Fruit small, oblate, yellow, shaded, splashed, and striped with two shades of red nearly over the whole surface, moderately sprinkled with light and gray dots. Stalk long, slender. Cavity medium, thinly russeted. Calyx closed. Segments rather long, partially recurved. Basin abrupt, slightly corrugated. Flesh white, a little stained next the skin, crisp, juicy, mild subacid. Good to very good. November, December.

Warder, in his *American Pomology*, page 435, describes a *Garden Apple*, and gives at the same time *Garden Royal* as a synonym, which latter must be erroneous, as there is a distinct fruit under that name. Warder's description is as follows:

Fruit pretty large, roundish flat, regular. Surface smooth, yellowish green, slightly shaded red, scattered stripes carmine, dots minute black. Basin wide, regular, small, closed. Cavity deep, acute, regular, green. Stem short to medium, sometimes knobby. Core wide, closed or open, regular, clasping the eye. Flesh pale yellow or whitish, tender, fine-grained, juicy, subacid, aromatic, saccharine, agreeable. August to October.

GARDEN.

Comstock's Garden.

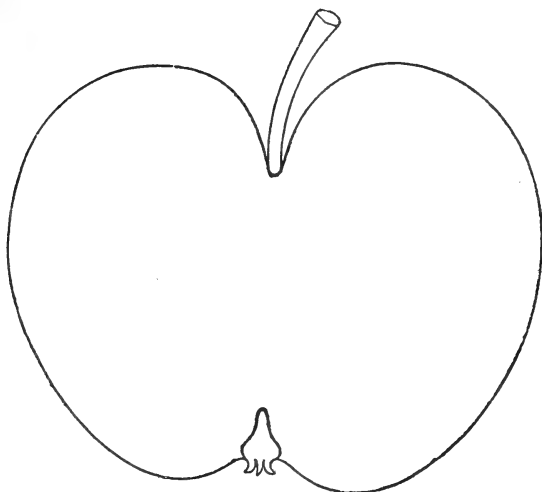
Origin uncertain. Tree moderately vigorous, productive.

Fruit medium size, roundish oblate. Skin whitish, nearly covered with narrow stripes of light and dark red, and thickly sprinkled with conspicuous light dots. Stalk short and slender. Calyx nearly closed. Basin medium, slightly furrowed. Flesh white tinged with red, not very tender, but valuable as a cooking fruit. September, October.

GARDEN ROYAL.

Originated on the farm of — Bowker, Sudbury, Mass. Tree of

moderate, very upright growth, forming a beautiful roundish, regular, even head, very productive. Young shoots dark dull reddish brown, slightly grayish or imperfect downy.



Garden Royal.

Fruit medium or below. Form roundish oblate, very slightly conic. Color greenish yellow, shaded, striped, and splashed with rich red, a little dull or grayish toward the stalk. Sprinkled with light and gray dots. Stalk medium, slender. Cavity deep, acute. Calyx open or partially closed. Segments sometimes a little recurved. Basin shallow, slightly uneven. Flesh yellow, very tender, juicy, rich, mild subacid, aromatic. Best. Core small. Last of August, September.

GARDEN STRIPE.

Tree moderately vigorous, spreading, and drooping.

Fruit below medium, roundish oblate, yellowish, broadly striped, splashed and shaded with shades of deep red. Flesh tender, juicy, subacid. Good. September.

GARDEN SWEET.

A New England Apple. Tree hardy, thrifty, and productive. Young shoots strong, light reddish brown, slightly downy.

Fruit medium, roundish oblong conic. Color yellow, shaded and splashed with crimson nearly over the whole surface, many light and gray dots. Stalk rather short and small. Cavity acute. Calyx closed. Segments partially recurved. Basin large, abrupt, corrugated. Flesh yellowish white, tender, juicy, rich, sweet. Very good. Core medium. September and October. A valuable variety for cooking or stock feeding, continuing a long time in use.

GARDNER SWEET.

Gardner Sweeting.

Kenrick says: Tree grows slow, but is very productive.

Fruit above medium, roundish, pale color, covered with small specks, bright blush next the sun. Flesh firm, sweet. December to March.

GARDNER'S SWEET PEARMAIN.

An old Long Island Apple.

Fruit medium, oblate, sides unequal, yellowish, shaded, splashed, and striped with light and dark red nearly over the whole surface, thickly sprinkled with light dots. Flesh whitish, tender, juicy, sweet, and pleasant. Good. Core small. September.

GARRETTSON'S EARLY.

Somerset Harvest.

Originated on the farm of Jno. Garrettson, Somerset, N. J. Tree vigorous, upright spreading, productive. Young wood brown, slightly downy.

Fruit medium, roundish conic, yellowish, thickly covered with light specks. Stalk short. Cavity deep, acute. Calyx closed, in a small, abrupt, furrowed basin. Flesh white, tender, juicy, brisk subacid. Good, valuable for cooking. September.

GARTER.

A cider fruit of England. Fruit medium, oblong, pale yellow and red.

GAULT'S BELLFLOWER.

Fruit large, roundish, pale yellow. Flesh white, coarse. October, December. (Elliott.)

GAUMONT.

Supposed French origin.

Fruit large, roundish oblong oblate, ribbed, golden yellow with a few light gray dots. Stalk short. Calyx open. Basin very deep. Flesh yellow, compact, juicy, rich subacid. October, November.

GENERAL HASKELL.

Origin said to be Graves Co., Ky. Tree a good grower and productive.

Fruit medium, red, esteemed for its fine appearance and being a long keeper.

GENESEE CHIEF.

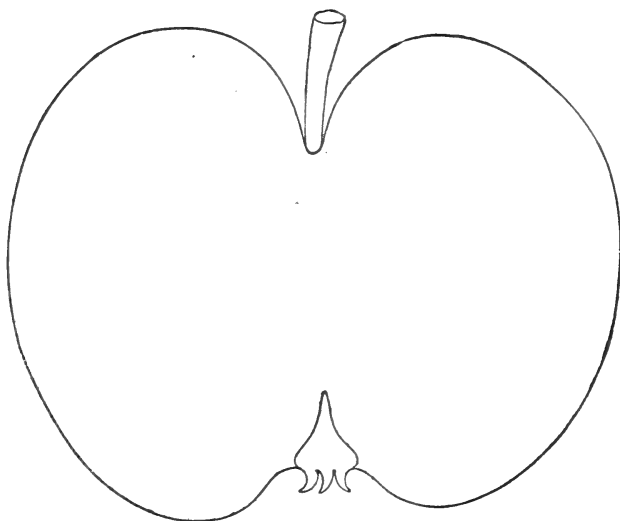
Origin unknown. Tree a strong, vigorous grower.

Fruit large, roundish conical, uneven or ribbed, whitish, almost waxen, shaded with crimson in the sun, few faint dots. Flesh white, tender, juicy, subacid. Good. Core large. September. Cooking.

GENEVA PIPPIN.

Winter Pippin of Geneva.

An Apple bearing the above local name was found growing in the garden of Mrs. Crittendon, Geneva, and is deserving of notice. The appearance of the tree and fruit is strikingly like that of the Fall Pippin, but is a late keeper, continuing in perfection until May. Young wood reddish brown, slightly downy.



Geneva Pippin.

Fruit large, roundish oblate, fine yellow, with rarely a bronzed cheek, sparsely covered with gray dots. Stalk short and small, inserted in a narrow cavity. Calyx open. Segments long. Basin open. Flesh yellow, tender, juicy, vinous. Very good or best. January to May.

GENTLE'S LARGE RED.

Origin unknown.

Fruit large, roundish, slightly conic, sides unequal, yellow, shaded, splashed, and striped with dull red, many light and brown dots. Stalk long and slender. Calyx closed. Flesh whitish, juicy, tender, mild, pleasant subacid. November. Good.

GEORGE.

Origin, Muskingum Co., Ohio. Tree healthy, spreading, an abundant bearer.

Fruit medium, roundish oblate, pale yellow, with considerable russet specks and markings. Calyx large, open. Flesh whitish, firm, juicy, mild acid. Good. July.

GESTREIFTER SOMMER ZIMMETAPFEL.

La Canelle.

An excellent little German dessert Apple described by Hogg. Tree a good grower and bearer.

Fruit small, roundish oblate, lemon yellow, with crimson stripes in the sun. Flesh yellowish white, fine, juicy, very aromatic, cinnamon. August and September. (Hogg.)

GEWISS GOOD.

Gewiss Guth. Indeed Good.

Origin, Berks Co., Pa. Tree vigorous, upright spreading.

Fruit medium, roundish oblate, often conic, light yellow, slightly shaded with carmine. Stalk short, inserted in a deep, narrow, slightly russeted cavity. Calyx partially closed. Basin deep, slightly corrugated. Flesh juicy, tender, crisp, with a somewhat spicy, subacid flavor. Good. December, February.

GIANT.

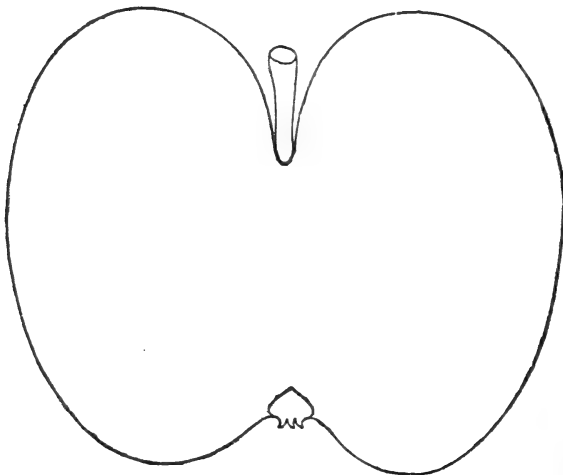
A Pennsylvania variety.

Fruit large, roundish conical, dull red, striped. Flesh greenish white, tender. Poor.

GILES.

Elliott describes this as from Wallingford, Conn.

Fruit medium, conical, dark red. Flesh tender, juicy. Very good. October, November.



Gilpin.

GILPIN.

Carthouse.
Roman Knight.

Small Romanite.
Romanite of the West.

Gray Romanite.
Little Romanite.

A handsome cider fruit, from Virginia, which is also a good table fruit from February to May. A very hardy, vigorous, and fruitful tree.

Fruit of medium size, roundish oblong. Skin very smooth and handsome, richly streaked with deep red and yellow. Stalk short, deeply inserted. Calyx in a round, rather deep basin. Flesh yellow, firm, juicy and rich, becoming tender and sprightly in the spring. Good.

GIPSON'S KENTUCKY.

Gipson's Kentucky Seedling.

Originated on the farm of A. Gipson, Calhoun Co., Ky.

Fruit below medium, roundish, sides unequal, greenish, with dark red in the sun. Flesh pale yellow, juicy, sprightly subacid. January to April.

GLADNEY'S RED.

Originated in Mississippi.

Fruit medium, roundish, yellowish, shaded, mottled, and obscurely striped with light red nearly over the whole surface, and covered with a thin bloom. Stalk long and slender. Calyx closed, with long reflexed segments. Flesh yellowish, rather firm, moderately juicy, slightly aromatic, subacid. Core small. Good. January, February.

GLANZ REINETTE.

Tyroler Glanz-reinette.

A beautiful waxen-like Apple of German origin.

Tree a strong grower, forming a round head, very productive.

Fruit medium, roundish oblate, waxy lemon yellow, blush of red in the sun. Stalk long. Cavity russeted. Basin furrowed. Flesh snow white, fine, juicy, rich, sugary, vinous. December. (Hogg.)

GLEASON SWEET.

Fruit medium, roundish conical, yellow, shaded and splashed with crimson over most of the surface. Flesh white, tender, juicy, scarcely sweet. Good. Core small. November.

GLENDALE.

Warder says: "Believed to have originated near Glendale, Hamilton Co., Ohio." Tree vigorous, thrifty, spreading, productive.

Fruit large, roundish, somewhat conical, yellow, striped and clouded with bright red, dots small, russet. Flesh yellowish, mild, subacid, almost saccharine. Good. September, October.

GLORIA MUNDI.

Monstrous Pippin.

Glazenwood Gloria Mundi.

American Mammoth.

Belle Josephine.

Baltimore Pippin.

Mississippi?

Baltimore of some.

New York Gloria Mundi.

Ox Apple.

Origin unknown. Tree vigorous. Not productive or profitable.

Fruit very large, roundish oblate, ribbed, greenish yellow. Flesh coarse, tender, with a pleasant acid flavor. Good. October to January.

GLORY OF ENGLAND.

Fruit large, oblate, ribbed, yellow, with streaks and dots of crimson, whitish specks and some russet. Flesh greenish yellow, tender, soft, juicy, sprightly acid. Cooking. (Hogg.)

GLORY OF THE WEST.

Tree a strong vigorous grower and great bearer.

Fruit large, oblate, ribbed, yellow, red in the sun, minute russet dots. Flesh yellowish white, firm, juicy, brisk, slightly perfumed, acid. October, December. (Hogg.)

GLOUCESTER WHITE.

Origin, Gloucester Co., Va. Tree vigorous and very productive.

Fruit medium, roundish oblate, fine yellow. Flesh yellow, juicy, crisp, pleasant, subacid. Good. October, November.

GOBLE RUSSET.

Sweet Seek-no-Further.

Origin unknown. Elliott describes the fruit as medium to large, oblong flattened, yellow russet, marbled with red. Flesh whitish yellow, dry, sweet. October to December.

GOGAR PIPPIN.

Stone Pippin.

A variety from Edinburgh, Scotland.

Fruit medium, roundish, obscurely ribbed, greenish, with brownish red in the sun. Flesh greenish white, juicy, brisk acid. January, February.

GOLAY.

Originated near Vevay, Indiana.

Fruit medium, oblate, somewhat conic, truncated, yellow, mixed, striped with purplish red, dots minute, gray, scattered, indented. Flesh yellowish white, breaking tender, juicy, rich subacid. Good to best. January to May. (Warder.)

GOLDEN.

Fruit medium, roundish, ribbed, light yellow. Flesh yellowish, acid. July. (Elliott.)

GOLDEN BALL.

Origin, Conn. Tree a vigorous grower, but only a moderate bearer.

Fruit large, roundish, somewhat ribbed, golden yellow, with a few dots. Flesh crisp, tender, subacid. Good. December, March.

GOLDEN BURR.

Burr Knot.

Ronalds describes this as a variety easily grown from cuttings, because of the knots or joints on the shoots.

A large apple, roundish, yellow, with flush of faint red in the sun. Useful for kitchen. November, December.

GOLDEN GOSS.

Received from Western New York. Tree vigorous, upright, productive.

Fruit rather large, roundish conical, slightly ribbed, golden yellow, faintly shaded in the sun with red. Flesh white, firm, juicy, mild subacid. Good to very good. November, December.

GOLDEN HARVEY.

Brandy Apple.

An excellent, high-flavored little dessert Apple from England, of slender growth.

Fruit small, irregularly round. Skin rather rough, dull russet over a yellow ground, with a russety red cheek. Flesh yellow, of fine texture, with a spicy, rich, subacid flavor. The fruit is apt to shrivel. December to April.

GOLDEN KNOB.

Tree vigorous, productive.

Fruit small, roundish oblate, golden yellow, some russet and tinge of red in sun. Flesh greenish white, crisp, juicy, brisk, sweet. December to March.

GOLDEN LUSTRE.

A culinary Apple from England.

Fruit medium, conical, yellow, with patches and stripes of bright red in the sun. Flesh pale yellow, firm, subacid. November to April.

GOLDEN MONDAY.

Monstow's Pepping.

Hogg describes this as from the Berkshire orchards, as a dessert Apple of first-rate quality.

Fruit small, roundish oblate, golden yellow, with crimson dots in the sun. Nettings and lines of thin brown russet. Flesh yellowish white, crisp, sugary, brisk, perfumed. October, December.

GOLDEN NOBLE.

An old English variety, valuable for cooking. Lindley describes it as pretty large, roundish conical, bright yellow with a few small reddish spots and patches of russet. Flesh yellow, tender, pleasant, subacid. November, December.

GOLDEN NONPAREIL.

Fruit small, roundish, golden yellow, with russet and blush red in the sun. Flesh crisp, sharp acid. October, December.

GOLDEN PEARMAIN.

Dutch Pearmain. Ruckman's Pearmain. Red Russet of some.

An old English Apple. Tree upright, very productive.

Fruit medium, roundish conical, yellow, orange in sun. Patches and dots of russet. Flesh yellowish, firm, crisp, juicy, sweet. Very good. November.

Ronalds describes an entirely different Apple under this name, as follows :

Fruit small, oblong roundish conical, yellow, with some slight russet and a good deal of red striping. Flesh firm, rich, and high-flavored. December, January.

GOLDEN PIPPIN.

Golden Pippin.

Old Golden Pippin.

Balgone Pippin.

Milton Golden Pippin.

Russet Golden Pippin.

Herefordshire Golden Pippin.

London Golden Pippin.

Warter's Golden Pippin.

Bayfordbury Golden Pippin.

Pepin d'Or.

Pomme d'Or.

Koenig's Pippelin.

Reinette d'Angleterre.

The Golden Pippin of the English is the queen of all dessert Apples, in the estimation of the English connoisseurs, as it unites the qualities of small size, fine form, and color, with high flavor and durability. It is a very old variety, being mentioned by Evelyn in 1660, but it still thrives well in many parts of England.

Fruit small, round, and regularly formed, gold color, dotted with gray russety dots, with also obscure white specks imbedded under the skin. Flesh yellowish, crisp, rather acid, but with a rich, brisk, high flavor. Very good. A great bearer, but requires a strong, deep, sandy loam. November to March. Does not succeed well here.

There are many varieties of the English Golden Pippin, differing but little in general appearance and size, and very little in flavor, from the old sort, but of rather more thrifty growth; the best of these are Hughes', and Kirke's new Cluster Golden Pippins.

GOLDEN PIPPIN.

Pittstown Pippin.

This is an old Apple, grown many years ago in Adams, Mass., from whence it was brought to Pittstown, and has been recently christened after that place. The tree is an upright vigorous grower, with large strong branches. Shoots dull brownish red, slightly downy.

Fruit rather large, roundish oblate, sometimes conic, and sides unequal, greenish yellow with a blush in sun exposure. Flesh yellowish, tender, juicy, sprightly subacid. Core rather large. Good for cooking. September and October.

GOLDEN PIPPIN.

Pound Royal of some.
Butter Pippin.

Mammoth.

York Pippin.
Large Golden Pippin.

This Apple is considerably grown in the New England States and Western New York, and is one of the largest of its class, specimens sometimes weighing 20 ounces. Tree very vigorous and very productive on deep rich soils; on light soils it is often a shy bearer, the fruit much smaller.

Fruit very large, roundish, ribbed, greenish yellow, becoming quite yellow at full maturity, slight blush of brown crimson in sun-exposed specimens. Flesh yellowish, coarse, juicy, tender, mild subacid. Core small. Good to very good. November, December.

There is another Golden Pippin sometimes known as Porter in Michigan, which is of medium size, roundish oblate, greenish yellow, mild subacid. Ripe in September and October.

There are also several other Apples under this popular name, many of which doubtless will be found identical with named sorts.

GOLDEN RED.

From Long Island. Origin unknown.

Fruit medium or below, roundish oblate, yellow, shaded, splashed, and mottled nearly over the whole surface. Flesh yellowish, crisp, moderately juicy, pleasant subacid. Core small. December, January. Fruit liable to rot on the tree, not profitable.

GOLDEN REINETTE.

Reinette, Golden.
Aurore.

Kirke's Golden Reinette.
Yellow German Reinette.
Reinette d'Aix.
English Pippin.
Court pendu Doré.

Wyker Pippin.
Elizabeth.

Wyggers.
Megginch Favorite.
Dundee.
Reinette Giden.
Princesse Noble, of the French.

The Golden Reinette is a very popular dessert fruit in England and on the Continent, combining beauty and high flavor.

Fruit below medium size, very regularly formed, roundish, a little flattened. Skin smooth, golden yellow, washed and striped with fine soft red on the sunny side, mingled with scattered russet dots. Flesh yellow, crisp, with a rich, brisk subacid. Good. October to January.

GOLDEN REINETTE OF VANDERLAANS.

Reinette dorée de Van der Laans.

Originated with Van der Laans of Rynland, in Holland. Tree strong, stout branches.

Fruit medium, roundish conical, greenish, with indistinct grayish brown spots. Calyx large, half open. Stalk short. Cavity deep. Flesh greenish white, fine, firm, perfumed, subacid. October to December. (Verg.)

The German Golden Reinette may possibly prove identical with the above.

GOLDEN RUSSET.

English Golden Russet. English Golden. Russet Golden.

This is an old English Apple described by Ronalds and Lindley as Golden Russet, and as that is its commonly accepted name in this country we have followed it. It is one of the popular Apples, succeeding in nearly all sections, and especially in rich Western soils. The tree is thrifty, vigorous, spreading, rather irregular, forming a bushy head. Young shoots slender, dull reddish brown, slightly downy, with numerous small white dots. An early bearer.

Fruit medium or below, roundish, or roundish oblate. Skin rough. Color yellow, mostly covered with dull russet, and having a bronzed cheek in the sun. Stalk short, small. Cavity medium, or rather deep. Calyx closed. Segments rather long, often a little recurved. Basin broad, rather large, slightly corrugated. Flesh whitish yellow, fine-grained, rather compact, sprightly, mild subacid. Good to very good. December to March.

GOLDEN RUSSET, OF MASSACHUSETTS.

Tree vigorous, upright, and productive. Young shoots clear reddish brown.

Fruit medium, roundish oblate, conic. Skin golden russet, with a sunny cheek. Stalk small and short, inserted in a deep cavity. Calyx nearly closed. Segments small, recurved. Basin deep, round, and open. Flesh yellowish white, tender, rich, mild, sweet subacid. Very good. January, April.

There are many Golden Russets about the country, and it is difficult to identify them. This is from Massachusetts, and distinct from those grown in New York, and West.

GOLDEN SEEDLING.

Supposed origin, Missouri.

Fruit large, roundish oblate, greenish yellow blush in the sun. Flesh yellowish, juicy, sharp subacid. February to May.

GOLDEN STREAK.

A cider Apple from Somersetshire, England.

Fruit medium, roundish oblate, clear yellow, with stripes of red. Flesh yellow, brisk, pleasant acid. (Hogg.)

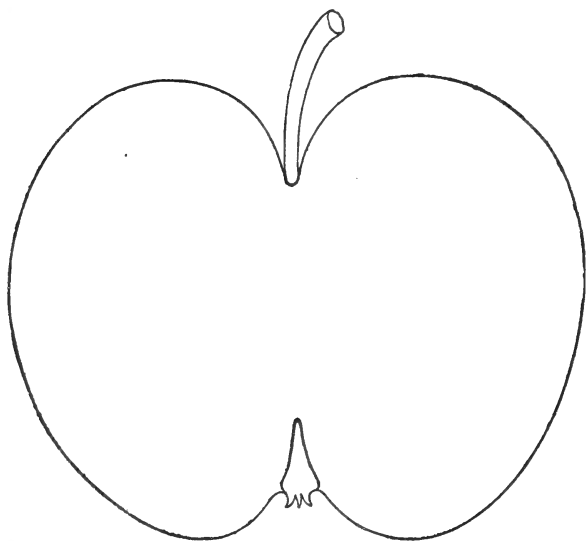
GOLDEN SWEET.

Orange Sweeting. Early Golden Sweet.

A celebrated Connecticut fruit. Tree very vigorous, spreading, forming a tree of moderate size, hardy and very productive. Young shoots reddish brown.

Fruit above the medium size, roundish, scarcely flattened, fair, and well formed; when fully ripe, pale yellow or straw color. Stalk about

an inch long, slender at its junction with the fruit. Calyx closed, and set in a basin of moderate depth. Flesh tender, sweet, rich, and excellent. Good to very good. August and September. A valuable sort for cooking, market, or stock feeding.



Golden Sweet.

GOLDEN WILDING.

Origin, near Fayetteville, N. C. Tree thrifty, upright, productive.

Fruit medium, roundish oblate, a little oblique, golden yellow, thickly sprinkled with brown dots. Stalk rather short and small. Cavity deep, russeted. Calyx open. Flesh yellow, firm, crisp, brisk subacid. Core small. Good. November to March.

GOLDEN WORCESTER.

A small dessert Apple described by Ronalds as perfectly round, rich golden, slightly tinged with red. Flesh firm, yellow. January.

GOLD REINETTE VON BORDEAUX.

Bordeauer Gold Reinette.

Hogg describes this as a valuable and beautiful sort. We do not know of its having fruited in this country.

Fruit very large, obtuse pearmain shaped, greenish, becoming rich yellow and washed with bright red in the sun, traces of russet, and gray russet dots. Stalk short, fleshy. Calyx open. Flesh yellowish white, fine, tender, juicy, rich aromatic. December to March.

GOODYEAR.

Goodyear's Seedling.

Origin, Cumberland Co., Pa. Tree a fine grower, and productive.
Fruit medium, roundish, fine red. Flesh firm, juicy, subacid. Good.
December to April.

GOOSEBERRY.

An English cooking Apple. Tree vigorous, spreading.
Fruit large, roundish conical, greenish yellow, sometimes slight tinge
of red in sun. Flesh yellowish, crisp, juicy, brisk subacid. Good to
very good for cooking. Core large. December, February.

GOOSEBERRY PIPPIN.

A handsome little English dessert Apple.
Fruit small, roundish, yellow, with splashes and marblings of red.
Flesh fine-grained, tender, juicy, brisk, sweet subacid. November to
February.

GOULD'S SWEET.

Origin unknown. First brought to notice from Mercer Co., Pa.
Tree of rather slow spreading growth, productive.

Fruit medium, roundish oblate conical, yellow, deep orange in the
sun, brown dots. Flesh yellowish, moderately tender, juicy, mild, rich,
sweet. Core rather small. A good cooking fruit. December to
March.

GOVERNOR.

American. Large, yellowish, tinged with red, juicy, acid, cooking.
October, January. (Elliott.)

GOVERNOR CHARTER.

Governor Charter's Seedling.

A variety described in the Prairie Farmer as a valuable market
Apple. Tree hardy and productive.

Fruit medium, roundish conical, obscurely ribbed, light yellow, with
blush in the sun. Flesh white, firm, juicy, pleasant, scarcely acid,
slightly aromatic. Core small. October.

GRACEY.

Origin, Greenville, Ill.

Fruit above medium, roundish conical, light green, with greenish
white specks. Flesh greenish white, coarse, mild subacid. August.
(Gar. Mon.)

GRANGE.

Origin, Herefordshire, England. Tree hardy and productive.

Fruit below medium, roundish, yellow. Flesh yellow, firm, crisp,
brisk. October, November. (Ron.)

GRANGE'S PEARMAIN.

Grange's Pippin.

An English culinary Apple. Tree hardy, productive.

Fruit large, roundish conical, yellow, with broken stripes of red. Flesh yellowish white, tender, juicy, brisk pleasant acid. November, February. (Hogg.)

GRANIWINKLE.

Originated in one of the eastern counties of New Jersey. Tree vigorous, upright, spreading, productive.

Fruit medium, roundish, slightly conical, yellowish, shaded with light red, and striped and splashed with a deeper shade. Flesh white, fine-grained, juicy, moderately tender, rich pleasant honeyed sweet. Core small. Very good. Valuable for stock, cider, or for cooking. October to December.

GRANITE BEAUTY.

Aunt Dorcas.

Grandmother's Apple.

Clothes-yard Apple.

Origin, on the farm of Z. Breed, Weare, N. H. Tree hardy, vigorous, upright, spreading. An annual bearer. Young wood light reddish brown, slightly downy.

Fruit medium to large, roundish oblong, largest at the centre, and narrowing toward stalk and calyx, uneven surface, or obscurely ribbed. Skin somewhat oily. Color pale yellow, mostly overspread, striped, splashed, and mottled with two shades of red, brown dots. Stalk short, slender. Cavity uneven, or ribbed, acute. Calyx closed. Segments short, erect. Basin medium, corrugated. Flesh whitish, tender, juicy, mild pleasant subacid. Core large, open. Good to very good. December to February.

GRANNY EARLE.

Fruit small, roundish oval, green, striped and splashed with red. Flesh white, crisp, tender. Very good. November, January. (Hov. Mag.)

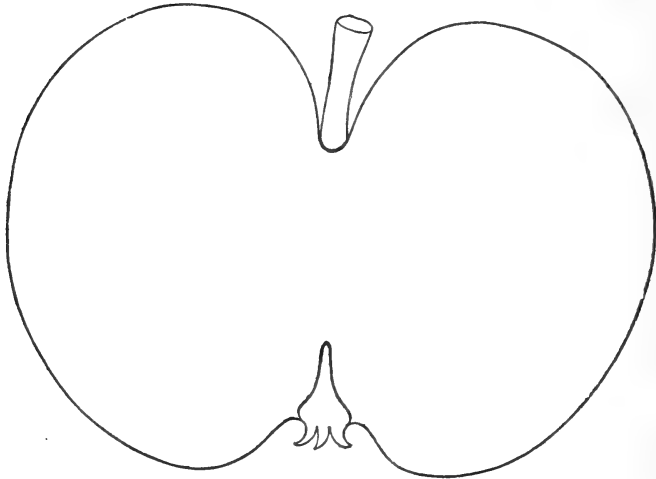
GRAVENSTEIN.

Grave Slije.

A superb-looking German Apple, which originated at Gravenstein in Holstein, and is thought one of the finest apples of the North of Europe. It fully sustains its reputation here, and is, unquestionably, a fruit of first-rate quality. Tree very vigorous, spreading, forming a large, broad head. Very productive. An early bearer. Young wood reddish brown.

Fruit large, rather flattened, and a little one-sided or angular, broadest at the base. Stalk quite short and strong, deeply set. Calyx large, closed, in a wide, deep, rather irregular basin. Segments long, irregular, recurved. Skin greenish yellow at first, but becoming bright yellow, and beautifully dashed and pencilled, and marbled with light and

deep red and orange. Flesh tender and crisp, with a high-flavored, somewhat aromatic taste. Very good. September and October. A valuable apple for market or cooking, succeeding admirably wherever grown.

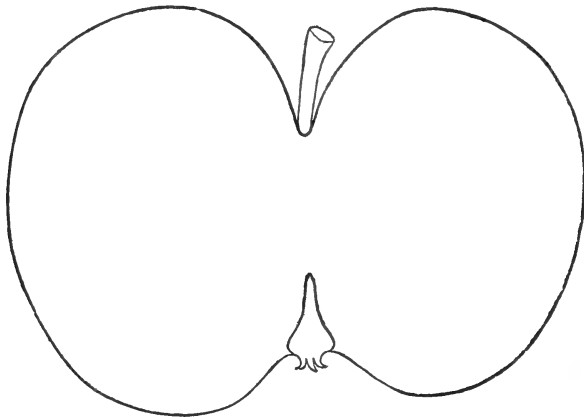


Gravenstein.

GREAT UNKNOWN.

Origin unknown. Found in the orchard of S. McDowell, Macon, Ga.

Fruit large, regular, oblate roundish, inclining to conic, yellow shaded and marbled with carmine. Stalk slender. Calyx open. Flesh yellowish, tender, juicy, subacid. Very good. December. (White.)



Green Cheese.

GREEN CHEESE.

Green Crank.	Yellow Crank.	Southern Greening.
Southern Golden Pippin.	Winter Greening.	Carolina Greening.
Green Skin.	Winter Cheese.	Turner's Cheese.
	Greening.	

An old variety, grown largely in Kentucky and other Southwestern States. It has been extensively propagated by suckers, but the exact place of the original tree is unknown. Although not best in quality, it has so many good properties adapting it to the South and Southwest, that it is widely disseminated under the various synonyms given above.

Tree moderately vigorous, upright, and has the habit of blooming late, which gives it a special value. A good bearer and long keeper. Young shoots slender, grayish brown.

Fruit medium, oblate, occasionally oblique, pale greenish yellow, moderately sprinkled with brown dots. Stalk short, slender. Cavity large, deep, russeted. Calyx closed. Segments slightly recurved. Basin broad, deep, uneven. Flesh yellowish white, tender, crisp, juicy, rich, sprightly subacid. Core small, compact. Very good. November to March.

GREEN'S CHOICE.

Origin, Chester Co., Pa. Tree vigorous and productive.

Fruit medium, roundish conical, yellow, striped with red. Flesh tender, juicy, very mild subacid, or almost sweet. Good. Ripe last of August and first of September.

GREEN DOMINE.

Fruit medium, oblate, greenish yellow, washed or obscurely striped with dull red. Flesh whitish, firm, with a pleasant, peculiar flavor. Good. December, February.

GREEN MOUNTAIN PIPPIN.

From Georgia, and much grown there as a market fruit.

Fruit medium, roundish, inclining to oblong, flattened at base and crown, greenish yellow. Flesh white, crisp, juicy, tender, pleasant subacid. Good. November, February.

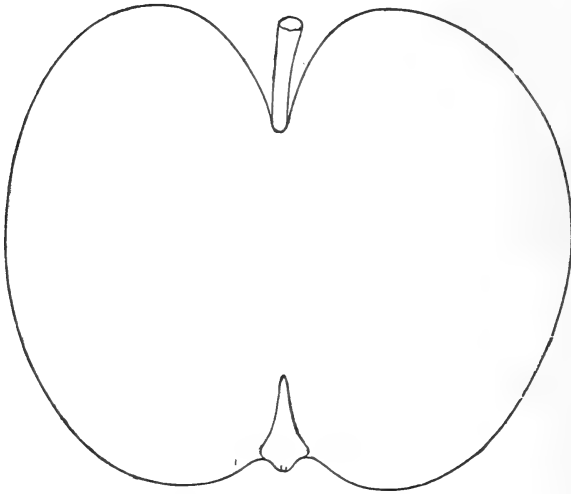
GREEN NEWTOWN PIPPIN.

Hunt's Fine Green Pippin.	Newtown Pippin.	American Newtown Pippin.
Brooke's Pippin?	Green Winter Pippin.	Petersburgh Pippin.
	Hunt's Green Newtown Pippin?	

The Newtown Pippin stands at the head of all Apples, and is, when in perfection, acknowledged to be unrivalled in all the qualities which constitute a high-flavored dessert apple, to which it combines the quality of long keeping without the least shrivelling, retaining its high flavor to the last. It commands the highest price in Covent Garden Market, London. This variety is a native of Newtown, Long Island, and it requires a pretty strong, deep, warm soil to attain its full perfection, and in the orchard it should be well manured every two or three years. The tree

is of rather slender and slow growth, and even while young is always remarkable for its rough bark.

Fruit of medium size, roundish, a little irregular in its outline, caused by two or three obscure ribs on the sides—and broadest at the base, next the stalk; about three inches in diameter, and two and a half deep. Color dull green, becoming olive green when ripe, with a faint, dull brownish blush on one side, dotted with small gray specks, and with delicate russet rays around the stalk. Calyx quite small and closed, set in a narrow and shallow basin. Stalk half an inch long, rather slender, deeply sunk in a wide, funnel-shaped cavity. Flesh greenish white, very juicy, crisp, with a fine aroma, and an exceedingly high and delicious flavor. Best. When the fruit is not grown on healthy trees, it is liable to be spotted



Green Newtown Pippin.

with black spots. This is one of the finest keeping apples, and is in eating from December to May, but is in the finest perfection in March.

This is entirely distinct from Yellow Newtown Pippin.

GREEN REINETTE.

Reinette Verte.
Groene Renet.

Groene Franse Renette.
Grune Reinette.

Tree vigorous and healthy, a good bearer.

Fruit medium, roundish, flattened at base, ribbed at apex, yellowish green with a tinge of red. Flesh yellowish white, tender, juicy, aromatic. December to May. (Hogg.)

GREEN SEEK-NO-FURTHER.

White Seek-no-Further. Flushing Seek-no-Further. Seek-no-Further of Coxe.

Origin in the garden of the late Wm. Prince, Flushing, L. I.

Tree while young very slow in its growth, but makes a compact, well-formed head in the orchard.

Fruit apt to be knotty and unfair. Rather large, roundish conical, yellowish green, sprinkled with green and brown dots. Stalk short, in a moderate cavity. Calyx closed, in a rather deep basin. Flesh white, crisp, tender, juicy, pleasant, mild subacid. Very good. October, January.

GREEN TIFFIN.

Mage's Johnny.

From Lancashire, England. Tree a fair grower and bearer.

Fruit medium, round conical, yellowish green with a few russet and red dots. Flesh white, crisp, tender, acid. September, December. (Hogg.)

GREEN SWEET.

Honey Greening.

Tree vigorous, upright spreading, and productive.

Fruit medium, roundish oblate, somewhat conic. Skin green, sometimes becoming a little yellow at maturity, covered with greenish or light russet dots. Stalk of medium length. Cavity rather deep, covered with russet. Basin shallow and abrupt, somewhat furrowed. Flesh whitish, tender, juicy, sweet, pleasant. Good. December to March.

GREEN SWEET OF INDIANA.

This Apple is somewhat grown in Indiana, and we have not met with it elsewhere.

Fruit medium to large, roundish conical, greenish yellow, with brown dots. Flesh yellowish, tender, juicy, sweet and pleasant. Good. September.

GREENUP'S PIPPIN.

Greenus's Pippin.

This English Apple is described by Hogg as popular and highly esteemed, the tree being hardy and an abundant bearer.

Fruit above medium, roundish, with on one side a prominent rib, pale straw color, bright red next the sun. Flesh pale yellowish white, tender, juicy, sweet, brisk. October to December.

GREEN WOODCOCK.

Origin, Sussex, England; described by Hogg as follows:

Fruit medium, roundish oblate yellowish, mottled and striped with red in the sun. Flesh white, tender, juicy, brisk. October, December.

GREIST'S FINE WINTER.

From York, Pa. Tree a strong grower, regular, moderate bearer.

Fruit rather large oblate or roundish oblate, yellow, splashed and shaded in sun with light red. Flesh yellow, compact, crisp, juicy, brisk subacid. Good. December, February.

GREY CANADA REINETTE.

Canada Reinette Gris.

Origin unknown.

Fruit large, oblate, yellow, covered with yellow russet, and moderately sprinkled with gray dots. Flesh white, crisp, brisk subacid. November, December.

GREY FRENCH REINETTE.

Reinette Grise. Reinette Franche Grauwe.
Reinette Grise Française.

There are a number of varieties of Reinette Grise, or Gray Reinette. The one here, however, is considered by Lindley as distinct, and among the most valuable of its class. It is of French origin. Tree a moderate grower and good bearer. Young wood of a chestnut color.

Fruit medium, roundish oblate, broadest at base, covered with brownish gray russet. Flesh yellow, moderately juicy, rich subacid. November, December.

GREYHOUSE.

Hoopes. Hopsey.

Origin, supposed New Jersey. Has been long grown and highly valued for cider-making. Tree strong, erect grower, and productive.

Fruit medium, oblate, nearly globular, dull red, with faint stripes. Flesh firm and dry, poor in quality. A long keeper.

GREY LEADINGTON.

Leadington's Grauer Pippin. Grey Leadington Pippin.

A favorite Scottish Apple. Tree vigorous, hardy, and productive.

Fruit medium, roundish oblong conical, greenish yellow, with cinnamon russet and red in the sun. Flesh white, firm, tender, very juicy, aromatic. October, December. (Lind.)

GREY REINETTE.

Reinette Grise Extra. Reinette Grise. Belle Fille.
Reinette Grise d'Hiver. Prager.

An old French Apple.

Fruit medium, roundish, yellowish green, with brownish red in sun. Flesh yellow, firm, crisp, brisk subacid. November, February. (Hogg.)

GRIFFITH.

Sweet Maiden's Blush.

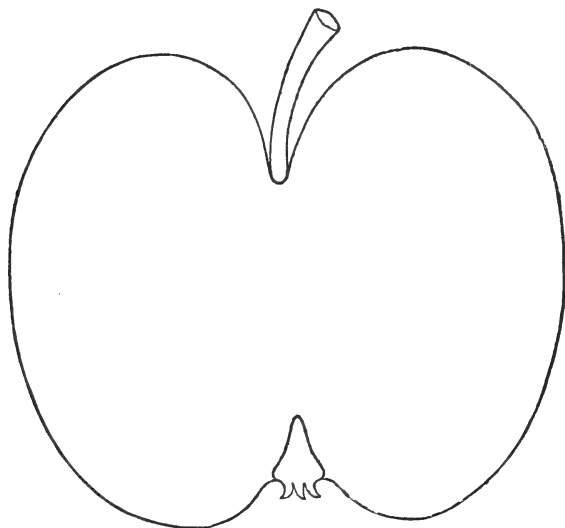
Raised by Caleb Mendenhall, West Milton, near Dayton, O. Tree hardy, spreading, productive.

Fruit medium, roundish oblate, clear pale yellow, with light blush red cheek in the sun. Stalk short. Cavity rather large. Basin small. Flesh fine-grained, tender, juicy, a little tart. September. (L. S. Mote's MSS.)

GRIMES' GOLDEN PIPPIN.

Grimes Golden.

This valuable Apple originated many years since, on the farm of Thomas Grimes, Brooke Co., Va. In its native locality it is highly prized for the peculiar hardihood of the tree, withstanding uninjured the most severe winters, and never breaking in its limbs. Also for its uniform regular annual productiveness.



Grimes' Golden Pippin.

Tree vigorous, hardy, upright spreading, very productive, branches with peculiar knobs at the base of each, connecting it with the main limbs. Young wood dark dull red brown, grayish.

Fruit medium, roundish oblate, slightly conical. Skin uneven. Color rich golden yellow, sprinkled moderately with small gray and light dots. Stalk rather short and slender. Cavity rather deep, sometimes slightly russeted. Calyx closed, or partially open. Basin abrupt, uneven. Flesh yellow, compact, crisp, tender, juicy, rich, sprightly, spicy subacid, peculiar aroma. Core rather small. Very good to best. December to March.

GROS FAROS.

Faros.

Fruit medium, oblate, roundish, yellow, with considerable red in the sun. Flesh greenish white, juicy, sweet subacid. December, January.

GROSH.

Originated in Snufftown, Lancaster Co., Pa. Tree upright, with stout brown shoots; an annual bearer.

Fruit very large, oblate, oblique, greenish white, striped with light and dark red. Flesh white, loose, soft texture, juicy, acid. September. Good. Cooking. (Gar. Mon.)

GROUZIER.

Received from New Jersey. Origin unknown.

Fruit medium, roundish conical, greenish, partially striped and splashed with light red. Flesh whitish, tender, juicy, mild subacid. Good. November, December.

GROOVELAND SWEET.

Origin unknown.

Fruit medium, roundish oblate, slightly conic, a little oblique, sides unequal, yellow, a tinge of red in the sun. Flesh whitish, crisp, tender, juicy, mild, pleasant, sweet. Good. December to March.

GRUVER'S EARLY.

Originated on the farm of ——— Mayer, Springfield, Pa.

Fruit medium, roundish, whitish yellow, with stripes and splashes of red. Flesh whitish, juicy, pleasant, mild subacid. Good. August.

GUERNSEY PIPPIN.

Fruit small, roundish, brown russet on yellow, bronzed in the sun. Flesh firm, crisp, juicy, brisk sweet. December, January.

GULLETT.

Origin unknown.

Fruit large, oblate conical, greenish yellow, with dull stripes. Flesh juicy. February.

GULLY.

Origin, Lancaster Co., Pa.

Fruit small, white blush in the sun. Flesh white, juicy. August.

HABERSHAM'S PEARMAIN.

Tree of upright growth.

Fruit medium, ovate form, bright crimson. Stalk short, slender. Calyx medium. Flesh white, rather dry, firm, subacid. September. (White.)

HAGLOE CRAB.

This is a celebrated old English cider fruit.

Fruit small, ill-shaped, something between an apple and a crab, more long than broad, wide at the base and narrow at the crown, which is a little sunk, and the eye flat, pale yellow, a little marbled in different directions, with a russet gray, and having a few red specks or streaks on the sunny side.

HAGUE PIPPIN.

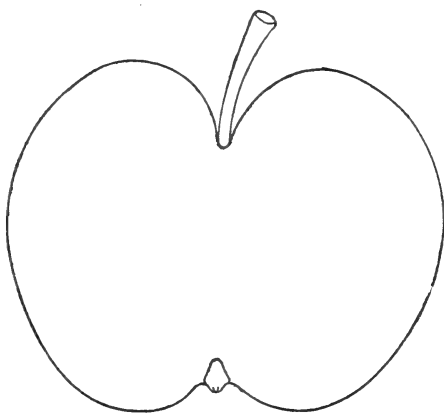
Originated in 1816, by Samuel Hague, Centreville, Ind. Tree hardy, vigorous grower, and productive. Young shoots strong, light reddish brown, slightly downy.

Fruit medium to large, roundish conical, pale yellow, mostly covered, shaded, splashed and striped with red, thickly sprinkled with light dots. Stalk short. Flesh rather coarse, yellowish, crisp, moderately juicy, mild subacid. Core large. Good. January, February.

HAIN.

Origin, Berks Co., Pa. A vigorous grower and profuse bearer.

Fruit large, globular, inclining to oblong, yellow, striped, marbled, and mottled with red. Flesh white, juicy, tender, rich sweet. Good. November, March.



Hall.

HALL.

Hall's Seedling.

Hall's Red.

Jenny Seedling.

Origin, on the grounds of Mr. Hall, Franklin Co., N. C. Tree of moderate growth, hardy, upright, with long, slender, reddish brown, grayish branches, and remarkably firm wood. The tree never attains a very large size; is very productive, and is considered in North Carolina the best long-keeping dessert apple they cultivate.

Fruit small, oblate, slightly conic. Skin smooth, thick, mostly shaded with crimson, and covered with various colored dots. Stalk of medium length, slender, curved, inserted in a round, deep, open cavity. Calyx closed, generally in a small uneven basin. Flesh yellowish, fine-grained, juicy, with a very rich, vinous, saccharine, aromatic flavor. Very good. December to April.

HALL DOOR.

An English Apple described by Ronalds as desirable for cooking.

Fruit large, oblate, greenish, with few red stripes. Flesh white, coarse, subacid. December, January.

HALL'S SWEET.

Of unknown origin.

Fruit large, roundish oblate, yellow, shaded, striped, and splashed with red, many light dots. Flesh sometimes a little stained, not very juicy, rich, sweet. Good. September.

HAMBLETON DEUX ANS.

Origin, Hampshire, England.

Fruit medium, roundish oblate, yellow, mostly overspread and indistinctly splashed with red. Flesh yellowish, juicy, pleasant subacid. Good. November.

HAMILTON.

Wonder?

Origin unknown. Came from the South.

Fruit large, roundish, irregular, somewhat ribbed, red on yellow, splashed with purple. Dots large, yellow. Calyx large, open. Flesh yellow, breaking, rather juicy, subacid. Good. September, October. (Am. Hort. An.)

HAMMOND.

Fruit medium to large, green. Flesh juicy. November, and keeps to March (Sumner, MS.)

HAMPTON BELLFLOWER.

A seedling from the Bellflower, grown by W. C. Hampton, Mt. Victory, Ohio.

Fruit large, light yellow ground, speckled and splashed with carmine, red in the sun, few russet gray dots and marblings. Stalk medium. Calyx partially open. Segments recurved and with fine points. Basin open, slightly uneven at base. Flesh white, tender, breaking, rather coarse, mild pleasant subacid. Good. Core small. November and December.

HAMPTON'S FALL SWEET.

Origin, W. C. Hampton, Ohio.

Fruit medium, roundish, yellow, striped with red. Flesh tender, sweet, rather dry. Good. October.

HAMPTON'S HONEY SWEET.

Origin, W. C. Hampton, Ohio.

Fruit medium, elongated truncate conic, yellow, faintly striped with red. Flesh white, tender, sweet. Good. December to April.

HAMPTON'S LATE SWEET.

Sweet Jersey.

Origin, W. C. Hampton, Ohio. Tree vigorous, with slender branches, hardy and productive.

Fruit medium, roundish conic, whitish, splashed, striped, and shaded with red. Flesh white, stained next the skin, tender, juicy, pleasant subacid. Good to very good. October.

HAMPTON'S RUSSET.

Origin, W. C. Hampton, Ohio.

Fruit medium to small, roundish conical, yellowish, thinly covered with light russet, splashes and stripes of red. Flesh yellowish, tender, juicy, lively subacid. Good. November, January.

HANCOCK.

Originated in Chester Co., Pa. Tree a strong upright grower, not an early bearer.

Fruit large, roundish, yellowish green, shaded and rather indistinctly splashed with light red. Flesh yellowish, compact, moderately juicy, coarse, pleasant subacid. Core small. Good. December to March.

HANNAH.

Origin unknown.

Fruit medium to large, roundish, pale yellow, with stripes and splashes of dull red. Flesh white, coarse, breaking, subacid. Hardly good. Cooking only. October, November.

HANWELL SOURING.

Origin, Oxfordshire, England.

Fruit medium, oblate conic, greenish yellow, faint blush in the sun. Flesh white, crisp, fine, brisk acid. Good. Cooking. December to April.

HARE.

Watermelon.

We received this desirable Apple from New Jersey, but have been unable to learn its history. Tree moderately vigorous, upright. Wood grayish brown.

Fruit large, roundish oblate, slightly conic, greenish, sprinkled with a few gray dots. Stalk short, slender. Calyx small, closed. Flesh white, very tender, juicy, mild pleasant sweet. Very good. Core rather large. October, November.

HARBORD'S PIPPIN.

Colored Harbord's Pippin.

Origin, Norfolk, England.

Fruit large, roundish conical, pale yellowish green, partially russeted. Flesh white, soft, juicy, brisk, acid. November to March. (Hogg.)

HARGREAVE'S GREEN SWEET.

An English variety, somewhat valued there.

Fruit medium, roundish, ridged at apex, yellow, with faint streaks of red in the sun. Flesh yellowish, tender, juicy, sweet. September, October.

HARNISH.

From Pennsylvania, said to have originated in Lancaster Co.

Fruit medium, roundish oblate, mostly shaded with dark red, and sprinkled with grayish dots. Flesh compact, tender, not juicy, almost sweet, pleasant. Good. September to October.

HARRIS.

Ben Harris.

Originated with Marston Harris, Rockingham Co., N. C. Tree vigorous, erect, productive, popular in its native locality. Young wood grayish brown, slightly downy.

Fruit large, roundish oblate, bright straw color, occasionally with a pink blush. Stalk very short and stout. Cavity deep. Basin large and deep. Flesh white, coarse, pleasant subacid, continues a long time, valuable for market and culinary purposes. Good. September to November.

HARRISON.

New Jersey is the most celebrated cider-making district in America, and this Apple, which originated in Essex County of that State, has long enjoyed the highest reputation as a cider fruit. Ten bushels of the Apples make a barrel of cider. The tree grows thriftily and bears very large crops.

Fruit medium size, ovate or roundish oblong. Skin yellow, with roughish, distinct black specks. Stalk one inch or more long. Flesh yellow, rather dry and tough, but with a rich flavor, producing a high-colored cider, of great body. The fruit is very free from rot, falls easily from the tree about the first of November, and keeps well.

HARRY SWEET.

Originated in Mercer Co., Pa. Tree of slow, upright growth.

Fruit medium, roundish, inclining to conic. Sides sometimes unequal. Skin thick, greenish yellow, dull blush in the sun, and nettings of russet. Flesh whitish, crisp, a little coarse, moderately juicy, mild sweet. Good. December to April.

HARTFORD SWEET.

Spencer Sweeting.

Keney's Sweet.

Origin, farm of Mr. Spencer, near Hartford, and introduced by Dr. E. W. Bull. Tree moderately vigorous, hardy, and productive.

Fruit rather large, roundish, slightly flattened. Skin smooth and

fair, almost covered and striped with fine red over a yellowish green ground, and sprinkled with small gray dots. Stalk nearly three-quarters of an inch long, slender, inserted in a rather shallow, round cavity. Calyx broad, closed, with few segments, set in a slightly uneven basin which is but little sunk. Flesh yellowish, very juicy, tender, rich saccharine. Good. December to May or June. A valuable market apple.

HARVEST RED STREAK.

Early Red Streak.

Striped Harvest.

An old variety, origin unknown. Tree a free grower, upright, spreading, productive.

Fruit medium, oblate, whitish, striped and splashed with two shades of red. Flesh white, coarse, tender, juicy, brisk subacid. Valuable for cooking. August and September.

HARVEY.

Doctor Harvey.

One of the oldest of English Apples.

Fruit large, roundish oval, greenish yellow, with russet tracings. Flesh whitish, firm, brisk subacid. Good for cooking. October to January. (Lind.)

HARVEY'S PIPPIN.

Dredge's Beauty of Wilts.

Of English origin. Hogg says:—"Tree a free grower and excellent bearer."

Fruit medium, roundish, yellow, washed with fine red, and marked with crimson dots. Flesh firm, crisp, juicy, rich. December to February.

HARVEY'S WILTSHIRE DEFIANCE.

This Apple is described by Hogg as very handsome and of first-rate quality.

Fruit very large, conical, distinctly five-ribbed, yellow, with many minute russet dots, and some patches of russet. Flesh yellowish, firm, crisp, juicy, sugary, vinous. Core very small. October to January.

HASKELL SWEET.

Sassafras Sweet.

Origin, farm of Deacon Haskell, Ipswich, Mass. Tree vigorous, upright, spreading and productive. Young wood light grayish brown.

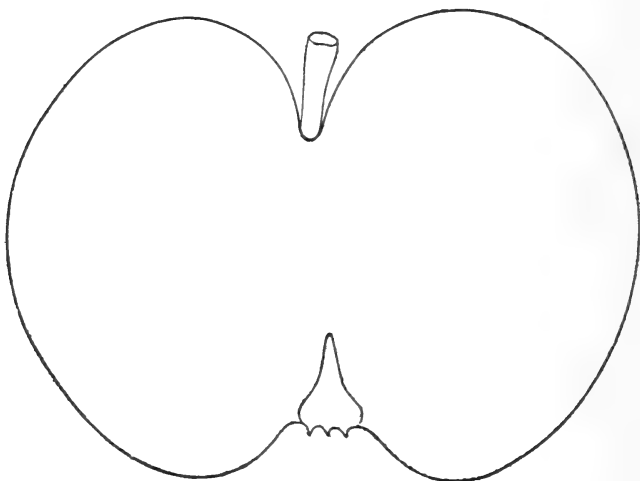
Fruit medium or above, oblate. Color greenish yellow, sometimes with a blush. Stalk short, inserted in a rather broad, deep cavity. Calyx closed. Basin broad and large, of medium depth. Flesh yellowish, tender, juicy, very sweet, rich, aromatic. Very good to best. September, October.

HAUTE BONTÉ.

Reinette grise haute bonté. Blandilalie.

An old French dessert Apple.

Fruit medium, roundish, ribbed, yellow, with faint tinge of red in the sun. Flesh greenish white, tender, juicy, brisk subacid. December to February.



Haskell Sweet.

HAWLEY.

Origin, Columbia Co., N. Y. Tree vigorous, and bears annually.

Fruit large, roundish oblate conic. Skin fine yellow, somewhat waxy or oily, and considerably dotted. Stalk short, inserted in a rather deep cavity. Calyx small, nearly closed, in a moderate, somewhat furrowed basin. Flesh whitish, very tender, juicy, rich, mild subacid. Ripe September.

A fruit of very good quality, but as it soon decays, its value is thereby much depreciated.

HAWTHORNDEN.

White Hawthornden.

A celebrated Scotch Apple, which originated at Hawthornden, the birthplace of the poet Drummond. It resembles, somewhat, our Maiden's Blush, but is inferior to that fruit in flavor. An excellent bearer, a handsome fruit, and good for cooking or drying, and exceedingly profitable for market.

Tree vigorous, upright, spreading, and, when in bearing, somewhat pendulous. Young shoots very short-jointed, dull reddish brown. Buds prominent.

Fruit rather above the medium size, pretty regularly formed, roundish, rather flattened. Skin very smooth, pale light yellow, nearly white in the shade, with a fine blush where exposed to the sun. Flesh white, juicy, of a simple, pleasant flavor. Good. September.

There is a *New*, or winter *Hawthornden*, the wood of which is brownish red, tree more robust, the fruit larger, and a longer keeper than the above.

HAY BOYS.

Fruit large, oblate, pale yellow. Flesh yellow, breaking, sweet. Good to very good. August. (Warder.)

HECTOR.

A seedling of Chester Co., Pa.

Fruit large, roundish, conical, striped and mottled with red on a yellow ground. Flesh yellowish, breaking, subacid, pleasant. Good. December to March.

HELEN'S FAVORITE.

From Troy, Ohio.

Fruit medium, roundish, dark red shades. Flesh white, streaked with red, tender, juicy. January, February. (Elliott.)

HEMPHILL.

From Person Co., N. C. An erect, vigorous grower, and bears profusely.

Fruit oblate, slightly conic, whitish yellow, very much shaded with red, and thickly sprinkled with grayish dots. Flesh yellowish white, compact, mild subacid. Good. November, May.

HENRY APPLE.

A strong, vigorous grower, and productive, from Vermont.

Fruit large, oblong conic, yellow, with a slightly bronzed cheek, and many small, grayish dots. Flesh yellow, tender, not very juicy, pleasant. Good. October, January.

HENWOOD.

Originated in Indiana. Tree in growth and appearance much resembling Yellow Belleflower.

Fruit large, oblong conical, clear smooth yellow, with rarely a blush in the sun. Stalk long, slender. Calyx small. Basin corrugated. Flesh yellowish white, crisp, tender, juicy, sharp subacid. Very good. January to April.

HEPLER.

Raised by Mr. Hepler, of Reading, Pa.

Fruit medium, roundish. Color light yellow, shaded with dull red. Flesh white, juicy, pleasant subacid. Good. December to April.

HEREFORDSHIRE PEARMAIN.

Royal Pearmain, of some. Parmin Royal. Old Pearmain.
Royale d'Angleterre. Parmin.

An old and popular English Apple, about which, as connected with other Pearmains, there is much confusion. The variety we have received, and grown for many years, is of a strong, vigorous, spreading growth. Young shoots dull grayish brown, slightly downy, moderately strong.

Fruit medium, roundish conical. Color yellow, shaded, splashed, and marbled with dark red, and thickly sprinkled with conspicuous light areole dots. Stalk short. Cavity medium, slight russet. Calyx partially open. Basin rather abrupt, deep, corrugated. Flesh yellowish, crisp, juicy, rich, slightly aromatic, subacid. Very good. November to February.

HERMAN.

Origin, farm of Mr. Herman, Cumberland Co., Pa. Tree vigorous and spreading, quite prolific.

Fruit medium, oblong conic, red striped on green ground. Flesh greenish, tender, juicy, subacid. Good. November to February.

There is also another *Hermann*, which originated at Hermann, Mo., from seed of Rawles Janet. Tree a fine grower, upright, and very productive.

Fruit medium, conical, bright red, with gray dots. Flesh whitish, juicy, pleasant subacid. December to May.

HESS.

Origin, Lancaster Co., Pa.

Fruit medium, form variable, sometimes roundish, often conical, red, in stripes of different hues. Flesh greenish white, tender. Good. December, February.

HETTERICH.

Origin, Pennsylvania. Tree an irregular grower.

Fruit medium to large, roundish oblate, yellow. Flesh whitish, tender, acid. Good. November, January.

HEWE'S VIRGINIA CRAB.

Hughe's Virginia Crab.

The Virginia Crab makes a very high-flavored dry cider, which, by connoisseurs, is thought unsurpassed in flavor by any other, and retains its soundness a long time. It is a prodigious bearer, and the tree is very hardy, though of small size.

Fruit quite small, about an inch and a half in diameter, nearly round. Skin dull red, dotted with white specks, and obscurely streaked with greenish yellow. Stalk long and slender. Flesh fibrous, with an acid, rough, and astringent flavor, and, when ground, runs clear and limpid from the press, and ferments very slowly. The Virginia Crab is often mixed with rich pulpy apples, to which it imparts a good deal of its fine quality.

The Roane's White Crab is a sub-variety of the foregoing, about the same size, with a yellow skin. It makes a rich, strong, bright liquor, and keeps throughout the summer, in a well-bunged cask, perfectly sweet.

HEWITT'S SWEET.

Large, oblate, yellow, splashed with red. Flesh whitish, sweet, tender and pleasant. Good. October, November. Productive.

HICK'S.

Buckram.

Originated with Isaac Hicks, North Hempstead, L. I. Tree an upright, strong grower, an early and abundant bearer. Young shoots stout, very short-jointed, dark brown, fine downy. Buds broad, flat, prominent, especially at ends.

Fruit medium or above, roundish, color pale greenish yellow, somewhat striped and splashed with crimson, thinly sprinkled with light and gray dots. Stalk rather short. Cavity deep, slightly russeted. Calyx closed. Segments short, often a little recurved. Basin rather large and uneven. Flesh whitish, tender, moderately juicy, rich, sweet, slightly aromatic. Core rather large. Very good. August. A new Apple, of good promise.

HIESTER.

Heaster.
Stehly.

Heister.
Miller.

Baer.

Originated in Reading, Berks Co., Pa. Tree large, vigorous, spreading, productive. Young shoots very dark blackish brown.

Fruit medium, roundish oblate, yellowish, shaded and indistinctly splashed and mottled with two shades of red, few light gray dots. Flesh white, crisp, juicy, tender, pleasant subacid. Good. November to March.

HIGBY SWEET.

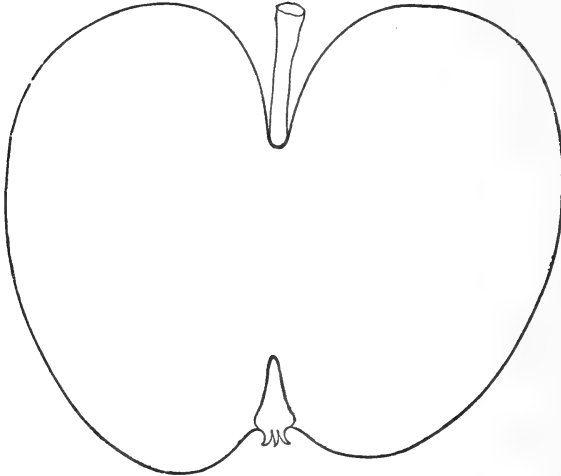
Lady Cheek Sweet.

Ladies' Blush.

Originated in Trumbull Co., O. This is one of the most delicate of sweet Apples, valuable either for the table or market. Tree a thrifty, upright grower, an early and good bearer. Young shoots very short-jointed, moderately stout, dark rich reddish brown, with very few light specks.

Fruit medium, roundish, slightly conical, sometimes oblique. Color

light waxen yellow, shaded with fine clear rich red in the sun, thinly sprinkled with gray and light dots. Stalk short. Cavity acute, rather deep, sometimes a little russeted. Calyx closed. Segments short, erect. Basin narrow, deep, uneven. Flesh white, very tender, juicy, sweet, excellent. Core small. Very good to best. November to January.



Higby Sweet.

HIGHLANDER.

Origin, Sudbury, Vermont. Tree a good grower, very productive.

Fruit medium, oblate, approaching conic, greenish, mottled, and striped with red. Flesh white, juicy, tender, with a pleasant vinous flavor. Good. September, October.

HIGHTOP.

Supposed origin, Wayne Co., Ind.

Fruit medium to large, flat, roundish, regular. Surface smooth, mixed dull red, striped carmine, dots scattered, minute. Flesh pale yellow, fine-grained, tender, juicy, subacid, aromatic. December, January. (Warder.)

HIGHTOP SWEET.

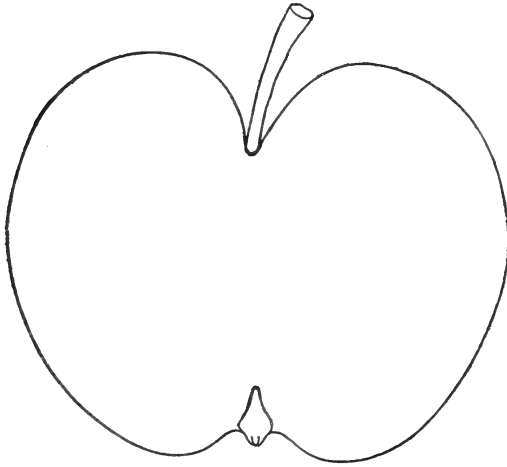
Summer Sweet.

Sweet June.

Origin, Plymouth, Mass. An old variety, highly prized at the West. Growth upright, vigorous. Tree hardy, very productive, light reddish brown shoots.

Fruit medium or below, roundish, regular. Skin very smooth. Color light yellow, partially covered with green dots. Stalk medium, inserted in a deep narrow cavity, surrounded by thin russet. Calyx small,

closed. Basin shallow, slightly furrowed. Flesh yellowish, very sweet, not very juicy, but pleasant and rich. Very good. August.



Hightop Sweet.

HILL'S FAVORITE.

Origin, Leominster, Mass. A thrifty grower, and very productive.

Fruit medium, roundish oblate, slightly conic, yellow, mostly shaded and striped with red, covered with thin bloom and numerous whitish dots. Stalk short. Cavity medium, uneven. Calyx closed. Basin small, shallow. Flesh yellow, fine-grained, tender, juicy, pleasant, slightly subacid, aromatic. Good to very good. Middle of September, and in use for a month.

HILL'S SWEET.

Of unknown origin. Tree a strong, upright grower, very productive.

Fruit medium, oblate or roundish oblate, yellow, mostly covered with two shades of red, many light dots. Stalk short. Cavity large, deep. Calyx closed. Basin large, uneven. Flesh yellowish white, tender, moderately juicy, rich, sweet, pleasant. Good to very good. Core small. January to April.

HILTON.

Origin, Columbia Co., N. Y. Tree vigorous and productive.

Fruit large, roundish, yellowish green. Flesh tender, juicy, subacid, excellent for culinary purposes. Good. September to October.

HINNERSLEY.

Origin, Bucks Co., Pa.

Fruit rather small, roundish oblong conical, greenish, thickly sprink-

led with light and brown dots. Flesh greenish white, fine-grained, rather tender, moderately juicy, mild subacid. Good. December to March.

HOARY MORNING.

Dainty Apple. Downy. Sam. Rawlings.

An English fruit for culinary purposes, large, oblate conic, yellow, splashed and striped with red, and covered with a bloom. Flesh white, rich, brisk subacid. Good. October, December.

HOBBS' SWEET.

Originated on the farm of Samuel Hobbs, Randolph, Pa. Tree hardy, vigorous, with a round head, productive, valuable for cooking.

Fruit large, roundish oblate, greenish yellow. Flesh tender, sweet. October, November. (Hobb's MS.)

HOCKETT'S SWEET.

Origin, North Carolina. Tree a good bearer, and the fruit profitable for stock feeding.

Fruit medium, roundish oblate, yellow, shaded, splashed, and striped with deep red. Flesh yellowish white, moderately juicy, crisp, rather rich, sweet. Good. December to March.

HODGE'S LIMBER TWIG.

Origin unknown.

Fruit small, roundish, whitish, thinly shaded, splashed, and striped in the sun. Flesh white, rather firm, juicy, sprightly subacid. Very good. October, December.

HOG ISLAND SWEET.

Canada Sweet. Sweet Pippin. English Sweet, erroneously.

Origin, Hog Island, adjoining Long Island. Tree vigorous and productive. Wood dark brown, slightly downy, short-jointed, valuable for family use and stock feeding.

Fruit of medium size, oblate, yellow, striped with red, with a bright crimson cheek. Stalk rather short, slender, inserted in a deep, abrupt cavity. Calyx closed, set in a broad basin of moderate depth. Flesh yellow, juicy, crisp, tender, slightly aromatic, with a very sweet, rich, excellent flavor. Good to very good. September, October.

HOLBERT'S VICTORIA.

An English Apple, described by Hogg as small, ovate, yellow, with pale gray russet. Flesh yellowish, firm, juicy, vinous, aromatic. December to May.

HOLCOMB.

Fruit medium, oblate, yellow, shaded and obscurely splashed with

red in the sun. Flesh whitish, fine, tender, moderately juicy, pleasant, almost sweet. Good. December to March.

HOLLADY.

Raised by John Hollady, Spottsylvania Co., Va. A very thrifty, upright grower, a good bearer.

Fruit medium, oblate. Color yellow, with a faint blush, and sprinkled with gray dots. Flesh yellowish, compact, tender, aromatic. Good. November to March.

HOLLANDBURY.

Hollingbury.
Beau Rouge.

Hawberry Pippin.
Bonne Rouge.
Kirke's Scarlet Admirable.

Horsley Pippin.
Howbury Pippin.

An old English culinary Apple. Tree strong, vigorous grower.

Fruit very large, roundish, flattened, ribbed, yellow, much red in the sun. Flesh white, tender, juicy, brisk subacid. October, December.

HOLLAND PIPPIN.

Reinette d'Hollande.

Summer Pippin.

Pie Apple.

This and the Fall Pippin are frequently confounded together. They are indeed of the same origin. One of the strongest points of difference lies in their time of ripening.

The Holland Pippin begins to fall from the tree and is fit for pies about the middle of August, and from that time to the first of November is one of the very best kitchen apples.

Fruit very large, roundish, a little more square in outline than the Fall Pippin, and not so much flattened, though a good deal like it, a little narrowed next the eye. Stalk half an inch long, thick, deeply sunk. Calyx small, closed, moderately sunk in a slight plaited basin. Skin greenish yellow or pale green, becoming pale yellow when fully ripe, washed on one side with a little dull red or pale brown, with a few scattered, large, greenish dots. Good.

HOLLAND SWEET.

Fruit medium, conic, green, with stripes of dull red. Flesh firm, sweet, and valuable for long keeping and culinary uses. Good. January to May.

HOLLOW CORE.

There are two varieties under this name. One grown in New Jersey, of medium size, roundish oblong, yellow, with shade of light red. Flesh whitish, tender, juicy, sprightly subacid. Good. Core very large and hollow. December, January.

The other, described by Hogg, is medium size, conical, ribbed, greenish, with pale red next the sun. Flesh white, tender, brisk, pleasant. Core very large, with open cells. September.

HOLLOW CROWN.

Hartford.

Tyler.

Kelsey.

An old New England Apple, commonly grown there, origin unknown. Tree a strong, upright grower.

Fruit large, roundish, slightly conic, yellow, splashed, striped, and marbled with red, thinly sprinkled with light dots. Flesh yellowish, somewhat coarse, crisp, tender, juicy, pleasant, brisk subacid. Good. November, December. Valuable for cooking or market.

HOLLOW CROWN PIPPIN.

Hollow-Eyed Pippin.

An English culinary Apple.

Fruit medium, roundish oblate, yellowish, with a blush cheek in the sun. Flesh firm, juicy, subacid. October, November.

HOLLY.

Hardskin.

Northern Hardskin.

Persimmon.

Simmon.

Origin, Georgia. Tree moderately vigorous, upright, healthy, and an early bearer.

Fruit medium size, roundish oblate, red, on a yellow ground, somewhat striped. Calyx closed. Flesh deep yellow, firm, juicy, sweet, aromatic. Good. November to March.

HOLMES.

This is an old variety, first described in Thatcher's Treatise on Orcharding, and yet considerably grown in Massachusetts. The tree is vigorous and very productive.

Fruit medium, roundish, slightly oblate, pale yellow, with bright blush in the sun, and many large russet specks. Stalk short, slender. Cavity shallow. Calyx large, partially open. Basin ribbed. Flesh yellowish, tender, fine, juicy, sweet subacid. December, January.

HOLMES'S SWEET.

Origin, Niagara Co., N. Y. Tree vigorous, productive. Young shoots dark reddish brown.

Fruit medium, roundish conical, waxy yellow, red cheek in the sun. Stalk medium. Cavity deep. Calyx open. Basin shallow. Flesh yellow, tender, rather juicy, spicy, sweet subacid. Very good. November and February.

HOLSTEN SWEET.

Origin unknown.

Fruit medium to large, round, greenish yellow, bronzy. Flesh whitish yellow, fine-grained, tender, juicy, very sweet, aromatic, rich. December, February. (Warder.)

HONEY GREENING.

Poppy Greening. Honey Sweet, incorrectly.

Origin uncertain. Tree vigorous, of rather a straggling, spreading habit, very productive. Young shoots light clear reddish yellowish brown.

Fruit medium to large, roundish oblate, greenish yellow, a slight blush in the sun, few light and gray dots. Stalk rather long, slender. Cavity deep. Calyx closed. Basin abrupt, corrugated. Flesh white, fine-grained, very tender, moderately juicy, with a honeyed sweet. Very good. Core small. November, February.

HONEY SWEET.

Origin unknown. There are a number of sorts under name of Honey Sweet, it being a popular application for every good sweet apple. The one we now describe, however, we have found more generally grown than any other, and therefore our application of the name to it.

Tree very upright, vigorous. Young shoots light reddish brown.

Fruit medium, roundish oblate, inclining to conic, pale yellow, bronzed, crimson in the sun, with a few green and gray dots. Stalk rather long. Cavity large, russeted. Calyx closed. Basin corrugated. Flesh white, moderately juicy, rather compact, honeyed sweet. Good. Valuable for baking or stock. August.

HOOD.

Hood's Seedling.

A nice and handsome little fruit, oblong conical in form, yellow, mottled, marbled, and splashed with two shades of red. Flesh whitish, firm, pleasant, sweet. November, December.

HOOKER.

Origin, Windsor, Conn. Growth upright, vigorous, productive.

Fruit medium, conic, slightly oblique, greenish yellow, shaded with dull crimson, striped with red, and sprinkled with large russet dots. Flesh greenish, tender, juicy, pleasant subacid. Good. November to January.

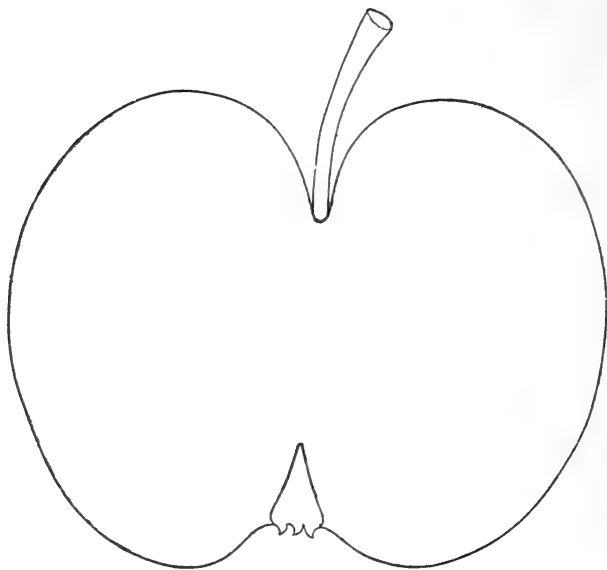
HOOVER.

Wattaugah.

Originated in South Carolina. It is pretty extensively disseminated and much favored where grown. The trees are quite distinct, having large foliage and retaining it until quite late into winter. It forms a beautiful upright spreading tree. Young shoots clear reddish brown, slightly downy.

Fruit medium, roundish, sometimes roundish oblate, slightly oblique, yellowish, mostly overspread, splashed, and striped with two shades of red, some conspicuous light dots, and patches of russet. Stalk rather long. Cavity large, thinly russeted. Calyx open. Basin slightly fur-

rowed. Flesh yellowish, rather firm, tender, juicy, rich subacid. Core small. Very good. November to February.



Hoover.

HOPKINS.

Supposed origin, Maryland. Tree vigorous, spreading, not an early bearer.

Fruit medium or below, roundish oblate, sometimes with unequal sides, yellowish, shaded, splashed, and mottled with light and dark red. Stalk rather short. Calyx small. Flesh white, crisp, juicy, pleasant subacid. Good to very good. October, November.

HOPPER.

From South Carolina.

Fruit large, roundish, flattened, sides unequal, greenish yellow, with a brown orange cheek in the sun, and a little russet about the stem. Flesh white, firm, moderately juicy, subacid. Good.

HORMEAD PEARMAIN.

Arundel Pearmain.

Hormeald Pippin.

An English variety, yet but little grown in this country.

Fruit medium, roundish, or nearly roundish conical, pale yellow, moderately sprinkled with gray dots. Stalk medium, slender. Cavity russeted. Calyx nearly closed. Basin shallow, corrugated. Flesh white, crisp, tender, juicy, brisk subacid. Good to very good. November, December.

HORN.

Leech's Red Winter.

Origin unknown. Tree vigorous, with stout diverging branches.

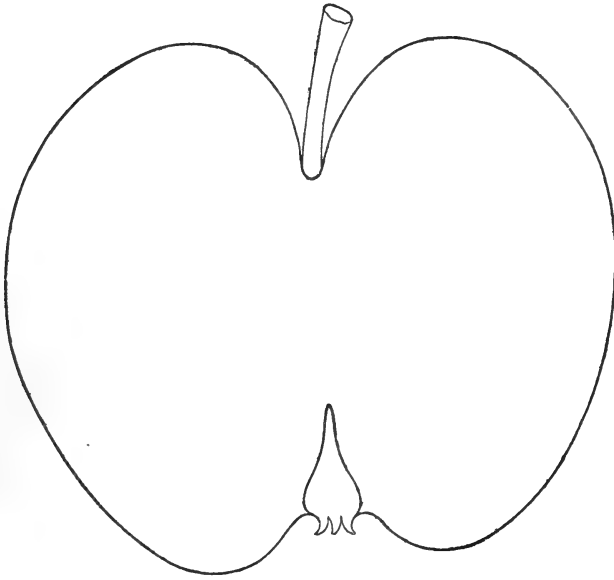
Fruit medium or below, oblate, sides unequal, whitish yellow, shaded and obscurely striped with light red, many small light dots. Flesh yellowish white, half tender, moderately juicy, mild subacid. Good. December to March.

HORSE APPLE.

Haas.
Summer Horse.

Yellow Hoss.
Trippe's Horse.

Origin supposed to be North Carolina. Tree vigorous, an annual, early and abundant bearer, valuable for drying and culinary purposes. Young wood light reddish brown.



Horse.

Fruit large, roundish, yellow, sometimes tinged with red, and small patches of russet. Flesh yellow, rather firm and coarse, tender, pleasant subacid. Good. Last of July and first of August.

There is said to be another Horse Apple, ripening a month or more later; we have not examined it.

HORSHAM RUSSET.

Origin, Norwich, England. Tree hardy and productive.

Fruit small, roundish, warm yellowish gray russet, bronzed in sun. Flesh white, firm, crisp, brisk subacid. November, December.

HOSKREIGER.

Heidelocher.

Fruit large, oblate, yellowish green, with streaks of red in the sun. Flesh white, tender, brisk subacid. November, March. (Hogg.)

HOUSUM'S RED.

Originated in Berks Co., Pa.

Fruit medium, roundish oblong, yellow, shaded and obscurely splashed with red, light gray dots. Flesh white, rather compact, crisp, moderately tender, juicy, pleasant subacid, slightly aromatic. Very good. Core small. December, February.

HOWARD'S EDMONT.

Origin, Pennsylvania.

Fruit large, roundish oblate, greenish yellow, partially splashed and striped with red, light gray dots. Flesh yellowish, crisp, tender, juicy, sprightly subacid. Good. November, December.

HUBBARD.

Origin unknown. Tree vigorous, productive.

Fruit rather large, roundish oblong conic, yellow, with a few brown dots. Flesh yellow, tender, juicy, pleasant subacid. Good. October.

HUBBARD'S PEARMAIN.

Hubbard's Russet Pearmain. Golden Vining.

This little English fruit is described by Lindley as one of the richest of dessert Apples. Tree healthy, with slender young wood of a pale grayish brown color.

Fruit small, roundish conical, regular, yellow, sometimes covered with pale brown russet, mottled red, bronzed in the sun. Flesh yellow, firm, very rich, sugary, aromatic. November to March.

HUBBARD'S SUGAR.

Origin, Guilford Co., N. C. Tree upright, moderately vigorous. Young shoots, light reddish brown.

Fruit medium, oblate, greenish yellow, striped with red. Flesh rich, juicy, and fine. September.

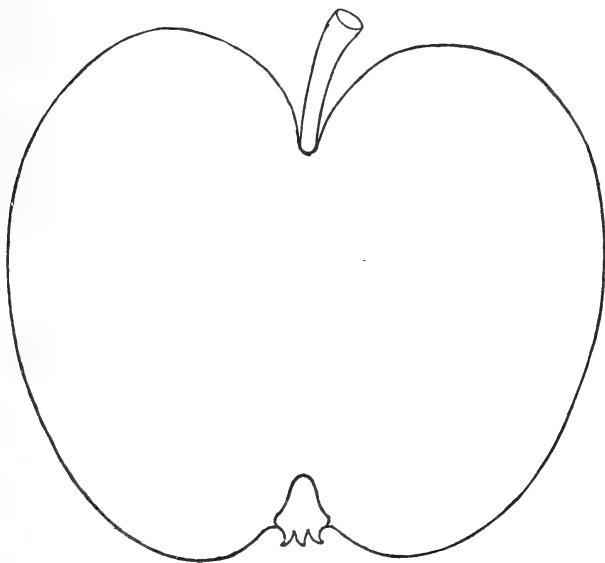
HUBBARDSTON NONSUCH.

John May. Old Town Pippin. Hubbardston.

A fine, large, early winter fruit, which originated in the town of Hubbardston, Mass. The tree is a vigorous grower, forming a handsome branching head, and bears very large crops. Young shoots dull grayish brown, slightly downy. It is worthy of extensive orchard culture.

Fruit large, roundish oblong, much narrower near the eye. Skin smooth, striped with splashes, and irregular broken stripes of pale and bright red, which nearly cover a yellowish ground. The calyx open, and the stalk short, in a russeted hollow. Flesh yellow, juicy, and ten-

der, with an agreeable mingling of sweetness and acidity in its flavor. Very good to best. October to January.



Hubbardston Nonsuch.

HUBBARDTON PIPPIN.

Origin uncertain. Tree thrifty, spreading, irregular, strong grower, and productive. Young shoots clear reddish brown.

Fruit large or very large, variable in form, globular, inclining to conic, slightly oblique, yellow, shaded and striped with red. Stalk short, inserted in a moderate cavity. Calyx closed. Basin small, corrugated. Flesh tender, yellowish, crisp, juicy, pleasant subacid, slightly aromatic. Core large and open. Very good. November to March.

HUGHES.

Origin, Berks Co., Pa. Tree upright, spreading, vigorous, said to be an abundant bearer.

Fruit large, roundish, greenish yellow, with a blush, and numerous gray dots. Flesh fine, tender, juicy, agreeable, saccharine without being sweet. Good. March, April.

HUGHES' GOLDEN PIPPIN.

An English Apple, described by Ronalds as an excellent table sort. Tree hardy, with long slender shoots, productive.

Fruit below medium, roundish oblate, yellow, with some russet patches and dots. Flesh yellowish white, firm, rich, brisk, spicy aromatic. December, January.

HULL BLOSSOM.

Origin unknown.

Fruit medium, roundish, slightly conic, pale yellow, much shaded, splashed and striped with red, many light dots. Flesh whitish, tender, juicy, pleasant, sweet. Good. October.

HULL SWEET.

Of unknown origin.

Fruit medium, roundish oblate, mostly overspread with shades of light and dark red, few large light dots. Flesh whitish, juicy, tender, rich, pleasant, sweet. Good to very good. October.

HUNGE.

Hunger

Origin uncertain, popular, and long cultivated in North Carolina. Tree vigorous and very productive.

Fruit large, roundish, green, with a blush. Flesh soft, subacid, pleasant, valuable for drying and culinary uses. Good. September, October.

HUNT.

Supposed origin, Eastern Indiana.

Fruit medium, roundish oblate, yellow, mixed, striped, bright red, numerous yellow dots. Flesh yellow, fine-grained, juicy, subacid, aromatic. December, January. (Warder.)

HUNTHOUSE.

A Yorkshire English Apple.

Fruit medium, roundish oblate conical, yellow, tinged with red in the sun, and crimson dots and faint streaks. Flesh white, firm, coarse, acid. December. (Hogg.)

HUNT'S CONNECTICUT.

Guttry.

Baldwin, erroneously.

An old variety. Origin unknown.

Fruit large, round oblate, yellow, marbled and shaded with dull red, gray specks. Stalk short. Cavity often russeted. Calyx large. Basin quite shallow. Flesh yellowish, rather dry, breaking, subacid. Good. November to March.

HUNT'S DEUX ANS.

An English dessert Apple, which has the character of keeping two years.

Fruit medium, roundish oblate conical, russeted, with gray and large brown russet dots in the sun. Flesh yellowish white, firm, juicy, aromatic.

HUNT'S DUKE OF GLOUCESTER.

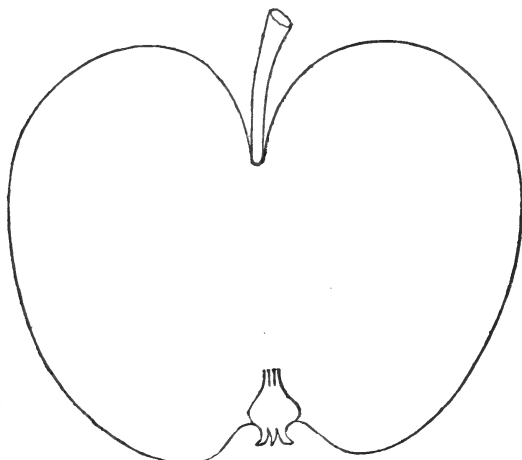
Hunt's Nonpareil ?

This variety is claimed by Hogg as distinct from Hunt's Nonpareil, which is a synonym given it by Lindley. We have not examined them.

Fruit below medium, roundish, greenish, almost covered with thin russet, reddish brown in sun. Flesh white, crisp, juicy, high flavored. December January.

HUNT'S RUSSET.

Supposed to have originated with the Hunt family, of Concord, Mass., many years since. Tree hardy, moderate grower, upright, spreading when in bearing, an annual and good bearer. Young shoots light reddish brown, slightly grayish.



Hunt's Russet.

Fruit medium, or below, roundish oblate, slightly conic. Color yellow, mostly covered with thin dull russet, with a blush of bright rich red in the sun, few brown dots. Stalk varying in length. Cavity large, deep, acute. Calyx partially open. Segments medium, a little reflexed. Basin medium, slightly corrugated. Flesh yellowish white, fine-grained, tender, juicy, rich, brisk subacid, slightly aromatic. Very good or best. Core compact. January to April.

HURLBUT.

Hurlbut Stripe.

Origin, farm of General Hurlbut, Winchester, Conn. Tree very vigorous, and great bearer. Young wood dark brownish red, slightly downy. Buds prominent.

Fruit medium, oblate, slightly conic, angular. Skin yellow, shaded

with red stripes, and splashed with darker red, and thinly sprinkled with light dots. Stalk short, rather slender, inserted in a broad deep cavity, surrounded by russet. Calyx closed. Basin rather shallow. Flesh white, crisp, tender, juicy, mild, sprightly subacid. Good to very good. Core small. October, December.

HUTCHESON.

Origin, supposed Logan Co., Ky. Tree of rather slow growth, healthy and productive. Esteemed, where known, for its fine appearance and long keeping.

Fruit medium, roundish, inclining to conic, yellow, overspread with rich red, large light dots. Stalk short. Cavity narrow. Calyx closed. Basin abrupt, deep. Flesh white, firm, moderately juicy, mild subacid, almost sweet. Core small. Good to very good. December to April.

HUTTON SQUARE.

A coarse culinary Apple, from England.

Fruit large, roundish, sides unequal, yellowish, with dull red in the sun. Flesh white, coarse, brisk, sweet. Good. November, December.

IMPERIAL.

Magnifique.

Maltranche.

Of French origin.

Fruit medium, oblate, inclining to conic, yellow, shaded, splashed, and striped with light and dark red, deepest in the sun. Stalk short. Calyx closed. Flesh white, crisp, tender, juicy, refreshing subacid. Good. October, November. (Warder.)

INDIANA BEAUTY.

Origin, Indiana.

Fruit large, roundish, oblong, unequal, yellow, partially covered mixed scarlet, splashed carmine. Flesh yellowish, breaking, juicy, subacid. Good. September, November.

INDIANA FAVORITE.

Supposed to have originated on the farm of Peter Morriss, Fayette Co., Indiana. Growth healthy, spreading, and a good bearer.

Fruit medium or large, roundish, flattened at the ends, slightly one-sided, yellowish, shaded and streaked with red, and covered with russet specks. Flesh white, tender, juicy, vinous, almost sweet, and very pleasant. Good. January to April.

INDIAN PRINCE.

Fruit medium, roundish, deep red, sprinkled with whitish dots. Flesh yellowish, rather firm, juicy, with a pleasant aromatic flavor. Hardly good. September, October.

INGRAM.

A new variety, grown from seed of Rawls Janet, by Martin Ingram, of Greene Co., Mo. Tree productive, and the fruit especially valued for its long keeping.

Fruit medium or below, roundish oblate, orange yellow, mostly overspread with broken stripes of rich warm red, gray russet dots, and slight marblings. Stalk slender. Calyx small. Flesh yellowish white, moderately juicy, crisp, mild subacid. Core above medium. Seeds dark brown. February to June. (Hort.)

IRISH PEACH APPLE.

Early Crofton.

Fruit of medium size, round or a little flattened, yellowish green, with small dots in the shade, washed and streaked with brownish red in the sun. Flesh white, tender, juicy, and pretty well flavored. Hardly good. August.

IRISH REINETTE.

An English culinary Apple.

Fruit medium, roundish oblong, ribbed, yellowish green, dull brownish in the sun, and with patches of russet. Flesh yellowish white, crisp, juicy, brisk sharp acid. Hardly good. November to February.

ISLAND BEAUTY.

Chicago?

Origin unknown. Tree vigorous, upright, spreading.

Fruit large, roundish, pale yellow, with a shade of brown in the sun, moderately sprinkled with indistinct light dots. Flesh whitish, tender, juicy, brisk subacid. Good. Core rather large. September.

ISLE OF WIGHT PIPPIN.

Isle of Wight Orange. Orange Pippin. Pomme d'Orange.

A very old Apple, described in Ronalds as fine for dessert.

Fruit small, roundish, yellow, bright orange in sun, with sometimes a brownish cheek. Flesh firm, juicy, rich, aromatic, acid. January, February.

ISLEWORTH CRAB.

Brentford Crab.

Fruit medium, roundish conical, yellow, brownish tinge in sun. Flesh white, crisp, juicy. Poor. October.

ITALIAN ROSE.

Weisse Italianische Rosmarinapfel.

An Italian dessert Apple.

Fruit medium, roundish oblong conical, yellow, with pale red, some-

what striped in the sun. Flesh white, tender, juicy, sugary, vinous. December. (Diel.)

JABE.

Originated in Boxford, Mass. Tree thrifty, hardy, and a regular, abundant bearer.

Fruit small, oblate, light straw color, beautiful blush cheek, and crimson spots in the sun. Flesh yellowish white, fine-grained, tender, juicy, pleasant subacid. September, November. (Me. Rep.)

JABEZ SWEET.

Originated on the premises of Jabez Barnes, near Middletown, Conn. Tree healthy, vigorous, and productive.

Fruit medium, roundish conical, yellow, with a few dark specks. Flesh white, tender, juicy, rich, sweet. Good to very good. December, February.

JACKSON.

Origin, Bucks Co., Pa. Tree upright grower. Young wood dark brown.

Fruit medium, roundish oblate, greenish yellow, with many dark green blotches and gray dots, a very few faint stripes, and warm mottled brown cheek. Flesh greenish, fine texture, tender, juicy. Good to very good. October, February.

JACQUES LEBEL.

An English fruit of much beauty, but ordinary quality.

Fruit large, roundish oblate, lemon yellow, shaded with red in the sun, many gray dots. Stalk large. Cavity deep. Calyx half closed. Flesh white, tender, mild subacid. January. (Alb. Pom.)

JANE.

Origin, Bucks Co., Pa. Tree of medium upright growth, an annual bearer.

Fruit medium, roundish, yellowish, shaded with deep red in the sun, lighter in the shade, some obscure splashes and stripes, few light and gray dots. Flesh yellow, compact, moderately juicy, mild subacid, almost sweet. Good. December to March.

JARMINITE.

Origin, Highland Co., Ohio. Tree vigorous, very productive.

Fruit medium, oblate roundish, green, partially covered with mixed and striped dull red. Flesh breaking, firm, mild subacid, almost sweet. December to March. (Warder.)

JEFFERIS.

Origin, Chester Co., Pa. Growth moderate, very productive. A fair

and handsome fruit of excellent quality, in use all of September. Young wood light reddish brown, smooth.

Fruit medium, oblate, inclining to conic, yellow, shaded and splashed with crimson, and thickly covered with large whitish dots. Stalk very short, inserted in a rather large cavity. Calyx closed, set in a round open basin. Flesh white, tender, juicy, with a rich, mild, subacid flavor. Very good. September.

JEFFERSON COUNTY.

Origin, Jefferson Co., N. Y. Tree vigorous, hardy, spreading, an early and great bearer. Young wood dull grayish brown.

Fruit medium, roundish oblate, slightly conic, yellow, splashed and shaded with fine red, minute light dots and some blotches of russet. Flesh whitish yellow, juicy, tender, pleasant subacid. Good to very good. Core small. October, November.

JENKINS.

Originated with John M. Jenkins, Montgomery Co., Pa.

Fruit small, roundish ovate, red, interspersed with numerous large white dots on yellowish ground. Flesh white, tender, fine texture, juicy, agreeably saccharine. Good. January to March.

There is another *Jenkins* apple which ripens in summer. It is small, roundish, yellow, striped with red.

JENNINGS SWEET.

Originated at Marietta, Ohio. Tree vigorous, productive.

Fruit large, roundish oblate, yellow, striped with bright red. Flesh whitish, sweet, fine for baking or stock. Good. October, November.

JERSEY PIPPIN.

Foreign.

Fruit medium, round oblong conical, yellowish green, stripes of red in the sun. Flesh greenish yellow, juicy, vinous, subacid. Good. November, February. (Elliott.)

JERSEY SWEETING.

Origin unknown. Tree moderately vigorous, forming a handsome round head, productive. Young wood dark reddish brown, downy.

A very popular Apple in the Middle States, where it is not only highly valued for the dessert, but, owing to its saccharine quality, it is also planted largely for the fattening of swine.

Fruit medium size, roundish ovate, tapering to the eye. The calyx is small, closed, very slightly sunk, in a small plaited basin. Stalk half an inch long, in a rather narrow cavity. Skin thin, greenish yellow, washed and streaked, and often entirely covered with stripes of pale and dull red. Flesh white, fine-grained, and exceedingly juicy, tender, sweet, and sprightly. Good to very good. Young wood stout, and short-jointed. This apple commences maturing about the last of August, and continues ripening till frost.

JEWETT'S BEST.

Origin, farm of S. W. Jewett, Weybridge, Vt. Same habit as Rhode Island Greening.

Fruit large, oblate or nearly globular, yellowish green, mostly shaded with deep red. Stalk short, inserted in a large cavity. Calyx closed, set in a very small basin. Flesh yellowish white, juicy, almost melting, pleasant, rich subacid. Very good. December to February.

JEWETT'S FINE RED.

Nodhead.

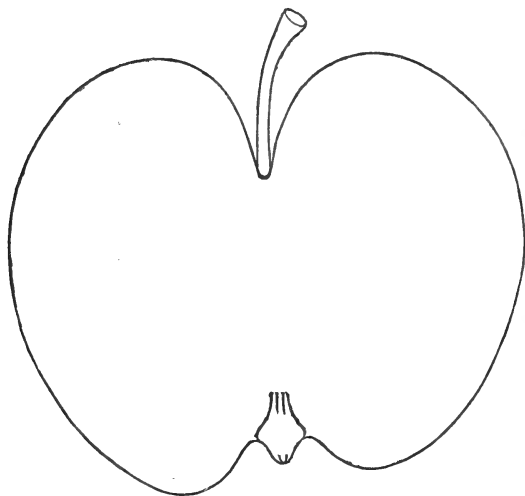
Origin, Hollins, New Hampshire. Tree of moderate growth, and productive, requires high culture to produce fair fruit.

Fruit medium, roundish oblate, greenish white, striped, splashed, and shaded with crimson, having a dull grayish bloom. Stalk short, inserted in a broad, deep cavity. Calyx firmly closed, in an exceedingly small basin. Flesh tender, juicy, very pleasant, sprightly, almost sweet. Good to very good. November to February.

JOEL.

Of Pennsylvania origin.

Fruit small, oblate, greenish yellow with patches of russet and russet dots. Flesh greenish yellow, dry, and poor.



Jonathan.

JONATHAN.

King Philip.

Philip Rick.

The Jonathan is a very beautiful dessert Apple, and its great beauty, good flavor, and productiveness in all soils, unite to recommend it to

orchard planters. The original tree of this variety is growing on the farm of Mr. Philip Rick, of Kingston, New York. It was first described by the late Judge Buel, and named by him, in compliment to Jonathan Hasbrouck, Esq., of the same place, who made known the fruit to him. It succeeds wherever grown, and proves one of the best in quality, and most profitable either for table or market. The tree is hardy, moderately vigorous, forming an upright spreading, round head. Young shoots rather slender, slightly pendulous, grayish brown.

Fruit of medium size, regularly formed, roundish conical, or tapering to the eye. Skin thin and smooth, the ground clear light yellow, nearly covered by lively red stripes, and deepening into brilliant or dark red in the sun. Stalk three-fourths of an inch long, rather slender, inserted in a deep, regular cavity. Calyx set in a deep, rather broad basin. Flesh white, rarely a little pinkish, very tender and juicy, with a mild, sprightly, vinous flavor. This fruit evidently belongs to the Spitzenburgh class. Best. November to March.

JOHN CARTER.

Origin uncertain, grown in Connecticut. Tree vigorous and productive.

Fruit large, roundish conic, yellow, marbled, striped, and splashed with crimson. Flesh white, tender, juicy, with a mild subacid flavor. Good. September.

JOHNSON.

Origin, Brookfield, Conn. A strong, upright grower, and a good bearer.

Fruit above medium, roundish conic, smooth, striped with red on a yellow ground, dark red in the sun. Flesh remarkably tender, crisp, and juicy, with a brisk, sweet flavor, very soon becomes mealy after ripening. Good. Middle of August to middle of September.

There is another *Johnson* Apple which is said to have originated in Massac Co., Ill., and described in the *Chicago Republican*. We have not seen it.

Fruit medium to large, roundish flattened, greenish yellow, almost entirely covered with rich dark red. Flesh yellow, subacid. December to March.

JOHNSON RUSSET.

Origin unknown. Tree a crooked grower, moderate bearer.

Fruit medium, oblong roundish conical, light golden russet, few light and gray dots. Flesh white, tender, dry, poor, mealy. December, February.

JOHN'S SWEET.

Origin, Lyndsboro, New Hampshire. Tree a good grower, somewhat straggling, a prolific bearer. Young shoots, reddish brown.

Fruit medium, roundish conic, whitish yellow, sprinkled, striped, and splashed with red. Stalk short, inserted in a narrow cavity, surrounded by russet. Calyx closed, set in an abrupt basin. Flesh juicy, tender, sweet. Good. January to May.

JOLLY BEGGAR.

Hogg describes this as a first-rate early cooking Apple. Tree a prodigious and early bearer.

Fruit medium, roundish, pale yellow, becoming orange in the sun. Flesh white, tender, brisk subacid. August to October.

JUBILEE PIPPIN.

From Norwich, England.

Fruit medium, roundish, yellowish, with gray and brownish specks. Flesh white, crisp, mild, almost sweet. Core large, open. October, December. (Lindley.)

JUDGE ANDREWS.

Origin unknown.

Fruit medium, roundish, pale yellow. Flesh tender, aromatic. Good. August.

JUICY BITE.

Origin, Pennsylvania.

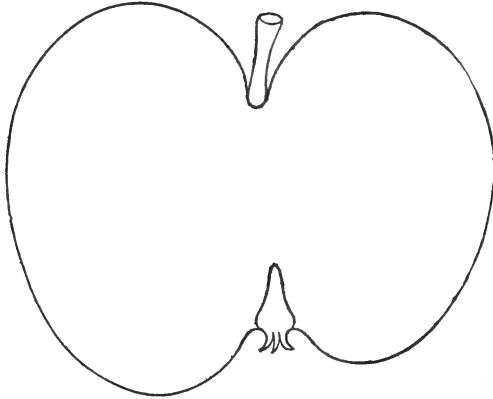
Fruit medium, roundish, inclining to conic, pale yellow, mostly over-spread, shaded and splashed with red. Flesh white, crisp, tender, lively subacid. Good. September.

JULIAN.

Juling.

Julien.

An Apple of Southern origin. Tree moderately vigorous, very productive. Young shoots light reddish brown, somewhat grayish, many white dots.



Julian.

Fruit above medium, roundish, inclining to conic. Sides unequal. Color waxen whitish, striped, splashed, and mottled with rich red,

moderately sprinkled with light dots, some having dark centres. Stalk short, small. Cavity deep, sometimes russeted. Calyx small, closed. Segments long, slender, slightly recurved. Basin deep, slightly corrugated. Flesh yellowish white, tender, juicy, pleasant subacid. Good to very good. July and August.

JUNALUSKEE.

Junaliska.

Journalaskia.

Origin, North Carolina. Tree moderately vigorous, spreading. Young shoots dark brownish, slightly downy.

Fruit medium to large, roundish oblate, yellow, lightly shaded on the sunny side, and sprinkled with brown and gray dots. Stalk short. Cavity large, a little green russet. Calyx small, closed. Basin abrupt, nearly smooth. Flesh yellowish, rather compact, moderately juicy, rich subacid. Good to very good. Core small. November to March.

KAIGHN'S SPITZENBURGH.

Red Pearmain.

Long John.

Red Spitzenburg.

Red Pippin.

Red Winter Pearmain, erroneously.

Red Phœnix.

Long Pearmain.

Sheepnose of some.

Lady Finger, erroneously.

Russam.

Scarlet Pearmain, erroneously.

Hudson Red Streak.

Origin, Gloucester Co., N. J. Tree vigorous, spreading or straggling habit, productive, and valued only because of its showy fruit.

Fruit rather large, oblong oval, approaching conic, whitish yellow, mostly shaded and striped with red, and thickly sprinkled with minute dots. Flesh yellowish, coarse, crisp, juicy, pleasant subacid. Good. November to January.

KANE.

Cane.

Cain.

Origin, Kent Co., Delaware. Tree moderately vigorous, upright. A beautiful little Apple, of pleasant flavor.

Fruit small, oblate, slightly conical, regular, whitish yellow, waxen, beautifully shaded and lightly striped with fine crimson. Flesh whitish, juicy, crisp, with a pleasant flavor. Good. October, November.

KEDDLESTON PIPPIN.

An English dessert Apple, described by Ronalds.

Fruit small, conical, straw color, slightly russeted. Flesh yellowish, juicy, sugary, aromatic. October to January.

KEEPING RED STREAK.

An English culinary sort.

Fruit medium, roundish oblate, yellowish, mostly striped with two shades of red, some russet and gray dots. Flesh greenish yellow, firm, brisk subacid. December, February. (Hogg.)

KEEPING RUSSET.

This is a dessert Apple described by Hogg as of first quality.

Fruit medium, roundish, pale yellowish brown russet, with a red cheek in the sun. Flesh yellow, firm, juicy, rich mellow flavor. October, January.

KEIM.

Origin, Berks Co., Pa. Tree moderately vigorous. Young shoots reddish brown.

Fruit small to medium, oblate. Color light waxen yellow, thickly sprinkled with light russet dots. Stalk long, slender, in a broad, shallow cavity. Calyx closed. Basin shallow and uneven. Flesh white, tender, crisp, fine, brisk, delicate aromatic subacid. Very good. December to March.

KEISER.

Red Seek-no-Further.

An old variety, much grown in Jefferson Co., Ohio, and highly prized; growth of tree like Rambo.

Fruit medium, roundish oblate, slightly oblique, angular. Skin pale yellow, shaded with red, indistinctly striped and thickly sprinkled with large, grayish dots. Stalk short, inserted in a large cavity. Calyx small, closed, in a broad, shallow, corrugated basin. Flesh yellowish, not very juicy, but mild subacid. Good. November to February.

KELSEY.

Origin, Berks Co., Pa., on the premises of John Kelsey.

Fruit medium, roundish oblate, sometimes inclining to conical, greenish yellow, with occasionally a faint blush, and numerous gray dots. Flesh tender, fine texture, greenish white, mild subacid. Good. March.

KELSEY SWEET.

Origin, Connecticut. Tree moderately vigorous, upright.

Fruit medium, roundish, greenish yellow, with a tinge of brown in the sun, green and gray dots. Flesh greenish white, moderately tender, juicy, sweet. Good. October, November.

KENNEBEC RUSSET.

From Maine. Tree vigorous, upright.

Fruit medium, roundish conical, yellow, partially netted with russet, and sprinkled with brown dots. Stalk long, slender. Calyx small, closed. Flesh moderately tender, juicy, brisk subacid. Good. November, December.

KENNEDY'S RED WINTER.

Originated in Pennsylvania. Tree an upright grower and regular bearer.

Fruit large, roundish conical yellow, shaded, splashed, and striped

with light and dark red, large light dots. Stalk short. Calyx closed. Flesh whitish, moderately juicy, a little coarse, pleasant subacid. Good. December, February.

KENNEY.

From Connecticut.

Fruit medium or below, roundish oblate, greenish yellow, shaded and splashed with red, large light dots. Flesh white, rather tender, moderately juicy, mild subacid. Good. Core small. December to March.

KENRICK.

Kenrick's Autumn.

Kenrick's Red Autumn.

Origin, on the farm of Mr. Kenrick, Newton, Mass. Tree moderately vigorous, compact, very productive.

Fruit large, roundish, pale yellowish green, striped and stained with bright red. Flesh white, a little stained with red, tender, juicy, sprightly acid. Good. September.

KENTISH BROADING.

A fine showy old English Apple. Tree a free grower and good bearer.

Fruit large, roundish oblate, yellow, with broken stripes or splashes of clear red. Flesh white, tender, a little coarse, subacid. Good. November, December.

KENT.

Originated on the premises of Walker Kent, near Plymouth, Mich. Tree a strong grower, and very productive.

Fruit large, roundish, pale greenish yellow, sometimes a slight blush cheek, few greenish dots. Stalk short. Calyx closed. Flesh white, tender, juicy, sprightly, subacid. Core rather large. Good to very good. October.

KENTISH FILL-BASKET.

Potter's Large Seedling.

Lady de Grey's.

An immense English fruit, properly named, and much admired by those who like great size and beauty of appearance. The flavor is tolerable, and it is an excellent cooking Apple. The tree grows strongly, and bears well.

Fruit very large—frequently four and a half inches in diameter—roundish, slightly ribbed or irregular. Color yellowish green in the shade, but pale yellow in the sun, with a brownish red blush on the sunny side, slightly streaked or spotted with darker red. Flesh tender, juicy, with a subacid, sprightly flavor. Good. October to January.

KENTISH PIPPIN.

Red Kentish Pippin.

Vaun's Pippin.

An old English Apple esteemed abroad for cooking, but is here quite good for dessert. Tree hardy, vigorous, and a good bearer.

Fruit medium, roundish oblate, sides often unequal, greenish yellow, with a slight blush next the sun, small gray dots. Stalk short, small. Cavity deep, large, and with thin russet extending out upon the fruit. Calyx partly open. Flesh yellowish white, crisp, tender, juicy, rich, brisk subacid. Good. Core small. December to May. Valuable as a late keeper.

KENTUCKY.

Of unknown origin, and probably a local name. An early and abundant bearer.

Fruit large and very uniform, roundish, slightly conical. Color yellowish, marbled and mottled, with dull red in the sun, with irregular greenish splashes or specks. Cavity narrow, acuminate. Calyx large, in a narrow abrupt basin. Flesh not very fine, but juicy, very tender, agreeable subacid. Good. October.

KENTUCKY CREAM.

Originated in Todd Co., Ky. Tree moderately vigorous, upright, an early and abundant bearer.

Fruit medium to large, roundish, largest at the crown or apex, and tapering slightly toward the stalk, yellowish mostly overspread with rich clear red, thickly sprinkled with large areole dots, and some grayish marblings next the stalk. Stalk slender. Cavity narrow, acute. Calyx large. Segments partially closed, divided. Basin broad, deep, somewhat corrugated. Flesh yellowish, breaking, not very juicy, rich, mild subacid. Good to very good. December to March.

KENTUCKY KING.

From Kentucky.

Fruit above medium, oblate, yellow, mixed and striped with carmine. Flesh yellow, breaking, fine-grained, juicy, subacid, aromatic. Good to very good. December, February. (Warder.)

KENTUCKY RED STREAK.

Winter Red Streak ?

Bradford's Best.

Selma ?

Origin obscure, supposed Tennessee. Tree upright, vigorous, and productive annually.

Fruit medium, roundish, slightly inclining to conic, greenish yellow, shaded with dull purplish red, and indistinctly splashed and striped, thickly sprinkled with large light dots, having gray centres, sometimes the number of dots give appearance almost as if mottled. Stalk medium. Calyx closed. Flesh whitish, tender, juicy, mild subacid. Core small. Good to very good. December to March.

KENTUCKY SWEET.

A Southern Apple of unknown origin.

Fruit medium, conic, regular, deep red, stripes obscured and scarcely visible. Dots scattered, large, yellow. Flesh yellow, tender, fine-grained, juicy, very sweet, rich, slightly perfumed. November, January. (Warder.)

KERRY PIPPIN.

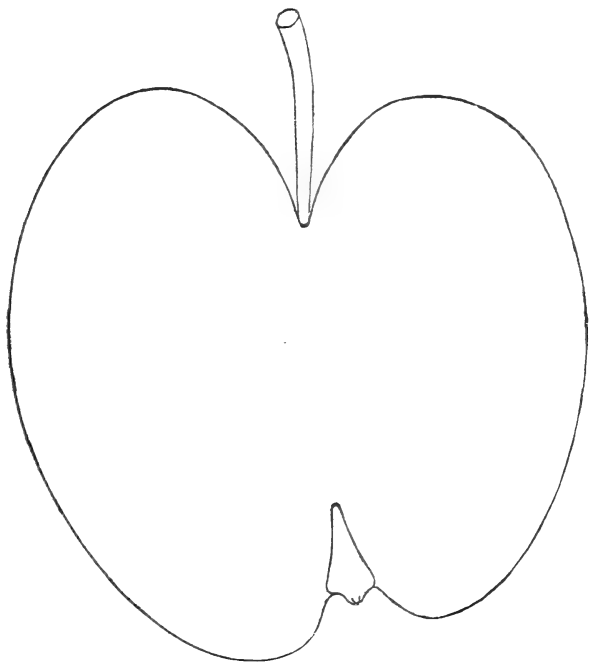
Edmonton's Aromatic Pippin.

An Irish dessert Apple.

Fruit middle size, oval, a little flattened at the eye, pale yellow. Flesh yellow, tender, crisp, with a sugary flavor. Good. Ripens in September and October.

KESWICK CODLIN.

A noted English cooking Apple, which may be gathered for tarts as early as the month of August, and continues in use till November. It is an early and a great bearer and a vigorous tree, and is one of the most profitable of orchard sorts for cooking or market. Tree very hardy, forming a large, regular, upright, spreading, round head.



Keswick Codlin.

Fruit a little above the middle size, rather conical, with a few obscure ribs. Stalk short and deeply set. Calyx rather large. Skin greenish yellow, washed with a faint blush on one side. Flesh yellowish white, juicy, with a pleasant acid flavor.

KETCHUM'S FAVORITE.

Origin, farm of Mr. Ketchum, in Sudbury, Vt. Tree vigorous and productive.

Fruit medium, roundish oblate, light waxen yellow, slightly shaded

with rosy blush, irregularly sprinkled with carmine dots. Flesh white, mild, tender, juicy, subacid. Good. September to January

KIKITA.

Origin unknown. Tree moderately vigorous, spreading.

Fruit medium, roundish, slightly oblate, greenish yellow, shaded with dull red in the sun. Flesh whitish, tender, moderately juicy, mild sweet. Good. November, December.

KILHAM HILL.

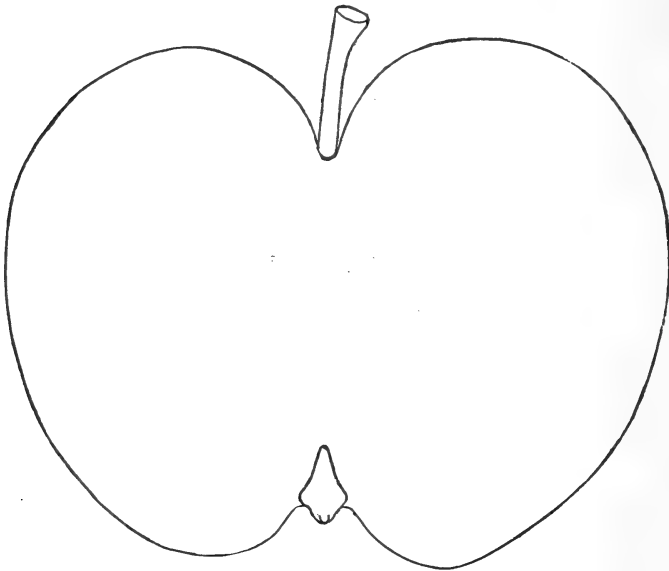
A native of Essex Co., Mass., raised by Daniel Kilham.

Fruit pretty large, roundish, ribbed, narrowing to the eye, pale yellow, slightly splashed with red in the shade, deep red in the sun. Flesh of sprightly, rather high flavor, but is apt to become dry and mealy. Good. September.

KINELLAN.

From Ross-shire, Scotland.

Fruit medium, roundish conic, yellowish green, some red in the sun. Flesh white, firm, juicy, pleasant. Good. December, January.



King of Tompkins County.

KING OF THE PIPPINS.

Hampshire Yellow.

An English fruit of poor quality, medium size, roundish oblate, pale yellow, washed and striped with red. Flesh very firm, sharp subacid. Good. October, November.

KING OF TOMPKINS COUNTY.

King Apple.

Toms Red.

Tommy Red.

Origin uncertain; said to have originated with Thomas Thacher, Warren Co., N. J. A valuable market fruit. Tree very vigorous, spreading, an abundant bearer annually. Young shoots very dark reddish brown, quite downy, especially toward the ends.

Fruit large, globular, inclining to conic, sometimes oblate, angular. Color yellowish, mostly shaded with red, striped and splashed with crimson. Stalk rather stout and short, inserted in a large, somewhat irregular cavity. Calyx small and closed, set in a medium, slightly corrugated basin. Flesh yellowish, rather coarse, juicy, tender, with an exceedingly agreeable, rich, vinous flavor, delightfully aromatic. Very good to best. December to March.

KINGSLEY.

Origin, Monroe Co., N. Y. Tree an erect moderate grower, an early bearer.

Fruit medium, roundish, yellowish, striped and splashed with red. Flesh fine-grained, juicy, melting, subacid. Very good. November, February.

KINGSTON BLACK.

A small English cider fruit of little value.

Fruit roundish, pale yellow, striped with red. Flesh white, stained with red, tender, juicy, sweet. November, December.

KING TOM.

From North Carolina. Origin unknown. Tree a crooked, twisting, tangled grower, forming a low head, with stout, distinct, blunt shoots.

Fruit medium, roundish, orange yellow. Flesh yellow, rather tough, spicy. August. (Ga. Hort. S. Rep.)

KINNEY.

A Southern variety, little known.

Fruit medium, roundish conic, greenish yellow, thickly sprinkled with gray dots and some russet. Stalk long, slender. Calyx closed. Flesh yellowish, rather firm, moderately juicy, subacid. Good. November, December.

KIRKBRIDGE WHITE.

Tree of rather slow upright growth, an early and abundant bearer.

Fruit below medium, oblong ovate, very irregular, ribbed, yellowish white. Stalk short and small, in a narrow cavity. Calyx small and closed. Segments long, reflexed. Basin narrow. Flesh white, tender, juicy, subacid. Core rather large. Good. August and September.

KIRTLAND.

Kirtland's Seedling.

Tree vigorous, and a good bearer.

Fruit large, oblong, deep rich yellow at maturity. Flesh yellowish, tender, spicy, subacid. Mid autumn. (Am. Hort. An.)

KIRK'S LORD NELSON.

English.

Fruit large, roundish, light yellow, striped and mottled with bright red. Flesh firm, juicy, but not rich. October, November.

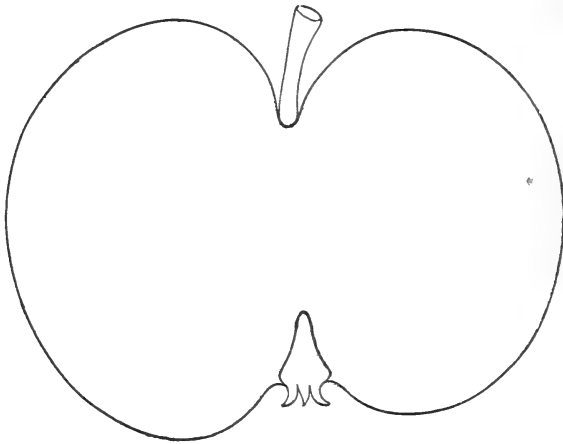
KITTAGESKEE.

A Southern Apple of unknown origin. Tree moderately vigorous, spreading. Young shoots short-jointed, grayish.

Fruit below medium, oblate, sides unequal, fine yellow, with a tinge of brown in the sun, few dark or brown gray dots. Stalk rather short and slender. Cavity broad, sometimes a little russeted. Calyx partially closed. Basin broad, shallow, furrowed. Flesh yellow, crisp, tender, brisk, mild subacid, slightly aromatic. Core small. Good to very good. November to March.

KLAPROTH.

This beautiful Apple, a native of Lancaster Co., Pa. (on the farm of Mr. Brennaman), was brought into notice by Dr. J. K. Eshleman, of Downington, Pa., and promises to be an excellent fruit, especially for market purposes. It bears carriage remarkably well, a most prolific



Klaproth.

bearer and vigorous grower. We give the Dr.'s description. Young wood very grayish dull reddish brown. Size medium, form oblate. Skin greenish yellow, streaked and stained with red, deepened on the sunny side, dotted all over with light specks, and occasional russet spots near the stalk, which is short and inserted in a smooth deep cavity. Calyx small and closed. Segments reflexed, set in a wide, regular, and well-formed basin. Flesh white, very crisp, juicy, tender, and pleasant subacid flavor, and until quite ripe acid predominates. Very good. August to October.

KNICKERBOCKER.

Origin unknown.

Fruit medium or above, roundish oblate, greenish yellow, sprinkled with brown dots. Stalk medium. Cavity large, deep, uneven. Calyx closed. Basin broad, shallow, uneven. Flesh whitish, juicy, crisp, brisk subacid, pleasant aromatic. Good to very good. September, October.

KNOBBY RUSSET.

Knobbed Russet.

Old Maid's.

Winter Russet.

A dessert Apple from Sussex, England, which Lindley describes as of medium size, roundish oval, yellow, nearly covered with russety knobs or warts. Flesh yellowish, crisp, not juicy, but sweet and high flavored. December to March.

KNOWLES' EARLY.

Oat Harvest?

Introduced by John Knowles, near Philadelphia. Tree of moderate growth, forming a round head, an early, annual, and abundant bearer, and the fruit continues in use a long time.

Fruit small, roundish oblate, smooth, pale greenish yellow, partially striped and splashed with dull crimson. Stalk long, slender. Calyx closed. Flesh whitish, very tender, moderately juicy, mild subacid. Good to very good. August.

KNOX RUSSET.

Found in the orchard of J. Knox, Pittsburgh, Pa. Origin unknown. Tree spreading, productive, shoots slender.

Fruit small to medium, globular, somewhat conic, yellow green, blushed, covered with light russet. Flesh yellow, fine-grained, mild subacid, aromatic. Good to very good. December, January.

KOHL.

From Germany. Tree thrifty, forming a regular top, a good and regular bearer.

Fruit small, roundish, crisp, juicy. Good keeper. (A. Pom. Rep.)

KÖNIG'S REINETTE.

Reinette Dorée.

Reinette du Roi.

Royale.

Winter Citronenapfel.

This is said to be a beautiful long-keeping dessert Apple, of German origin.

Fruit above medium, roundish oblate, ribbed, lemon yellow, with a rich red cheek. Flesh yellowish white, very fine, firm, and juicy, rich subacid. December to March. (Diel.)

KRAUSER.

Krowser.

Krouser.

Origin, Berks Co., Pa. Tree vigorous, a handsome grower and an abundant and regular bearer. Young wood dark reddish brown.

Fruit medium, roundish conic. Color whitish yellow, striped and splashed with bright red. Stalk rather short, inserted in a medium cavity. Calyx closed. Basin small and corrugated. Flesh white, tender, mild subacid. Good to very good. December, March.

KRAUTER REINETTE.

A German Apple, highly praised in its own home.

Fruit medium, roundish oblate, greenish yellow. Stalk long. Cavity russeted. Flesh white, very fine, juicy, highly aromatic. December to March.

LABUTE.

Of French origin. Tree vigorous, upright.

Fruit large, roundish conical, sides unequal, yellow, mostly shaded, and somewhat splashed with rich red. Stalk rather short. Cavity deep. Calyx closed. Basin small, corrugated. Flesh white, crisp, rather firm, juicy, pleasant subacid. Good. Core large. October.

LACKER.

Laquier.

Origin, Lancaster Co., Pa.

Fruit medium, oblate, sides sometimes unequal, pale red, striped and splashed with crimson. Stalk short, slender, inserted in a narrow russeted cavity. Calyx closed. Basin wide, deep, corrugated. Flesh white, tender, crisp, juicy, pleasant subacid. Good. November to March.

LADY APPLE.

Api.

Pomme d'Api Rouge.

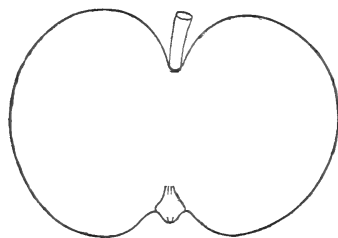
Api Petit.

Petit Api Rouge.

Pomme Rose.

Gros Api Rouge.

An exquisite little dessert fruit, the pretty size and beautiful color of which render it a universal favorite; as it is a great bearer, it is also a profitable sort for the orchardist, bringing the highest price of any



Lady Apple.

fancy apple in the market. It is an old French variety, and is nearly always known abroad by the name of *Api*; but the name of Lady Apple has become too universal here to change it now. No amateur's collection should be without it.

Fruit quite small, but regularly formed and flat. Skin smooth and glossy, with a brilliant deep red cheek, contrasting with a lively lemon yellow ground. Stalk of medium length, and deeply inserted. Calyx small, sunk in a basin with small plaits. Flesh white, crisp, tender, and juicy, with a pleasant flavor. The tree has upright, almost black shoots, with small leaves; forms a very upright, small head, and bears its fruit in bunches. The latter is very hardy, and may be left on the tree till severe frosts. The Lady Apple is in use from December to May.

The Api Noir, or *Black Lady Apple*, differs from the foregoing sort only in the color, which is nearly black. In shape, size, season, and flavor, it is nearly the same. It is, from its unusually dark hue, a singular and interesting fruit—poor flavor.

The true Api Étoile, or *Star Lady Apple*, figured and described by Poiteau, in the *Pomologie française*, is another very distinct variety; the fruit is of the same general character, but having five prominent angles, which give it the form of a star. This variety is rather scarce, the common Lady Apple being frequently sent out for it by French nurserymen. It keeps until quite late in the spring, when its flavor becomes excellent, though in winter it is rather dry. The growth of the tree resembles that of the other Apis.

The Api Gros, or Large Lady Apple, is of a similar habit in growth of the tree to the true Lady Apple, the fruit a trifle larger, more roundish, less brightly colored, and quite inferior in quality.

The Api Gros Pomme de Rose, or Rose-colored Lady Apple, is also another variety, with fruit of medium size, roundish, pale yellow, washed with bright rosy red. Flesh yellowish white, fine-grained, juicy, crisp, aromatic.

LADY BLUSH.

Received from Pennsylvania.

Fruit rather large, roundish, whitish yellow, shaded in the sun with bright red, many light and gray dots. Stalk medium. Cavity deep. Calyx closed. Flesh yellowish, rather firm, moderately juicy, pleasant subacid, slightly aromatic. Good. November, December.

Elliott describes a Lady or Lady's Blush as medium, yellow, with red blush. Flesh dry.

LADY FINGER.

Under this name Hogg describes an Apple as:

Fruit below medium, pyramidal, rounded at base, dull greenish yellow, with minute gray russety dots, dull blush and spots of lively red in the sun. Flesh yellow, tender, juicy, pleasantly acid. November to March.

Coxe describes an apple as Lady Finger or Long Pippin, as remarkably long, greenish yellow. Flesh pleasant, early winter, but does not keep well.

Elliott describes under name of Lady Finger, synonym Sheep Nose, an apple as medium size, oblong, pale yellow, faint blush. Flesh firm, watery. November, December.

We have also received an apple from Maryland under this name which is of medium size, roundish conical, yellowish, shaded over the whole surface with deep crimson, thinly sprinkled with light dots. Stalk

short. Cavity rather deep. Calyx closed. Basin large, deep, corrugated. Flesh white, tender, moderately juicy, pleasant subacid. Good to very good. Core small. August.

LADY HALEY'S NONSUCH.

An Eastern variety, of unknown origin. Tree vigorous, productive.

Fruit medium, roundish oblate, ribbed, light waxen yellow, shade of red in the sun. Stalk short and stout. Cavity large. Calyx closed. Basin medium, corrugated. Flesh rather firm, pleasant, slightly aromatic. Good. Cooking. September.

LADY OF THE WEMYSS.

A large and handsome Scotch Apple.

Fruit roundish, pale green, red next the sun. Flesh white, juicy, subacid. October, December.

LADY'S DELIGHT.

An English culinary Apple, the habit of the tree like that of the Weeping Willow.

Fruit medium, roundish oblate, ribbed, greenish yellow, with red next the sun. Flesh white, crisp, juicy, brisk, aromatic. October, December. (Hogg.)

LADY'S FANCY.

King of some.

Origin unknown. Much grown in Vermont, Northern New York, and Canada.

Fruit above medium, oblong conical, whitish yellow, splashed, shaded, and mottled with light and dark red, light dots. Stalk short. Cavity narrow. Calyx closed. Flesh white, crisp, tender, juicy, agreeable, subacid. Core large. Good. November to February.

LADY'S SEEDLING.

Origin, Delaware Co., Pa. Tree moderately vigorous, upright, spreading.

Fruit medium, oblate, greenish yellow, with a blush cheek. Flesh whitish, juicy, pleasant subacid. October.

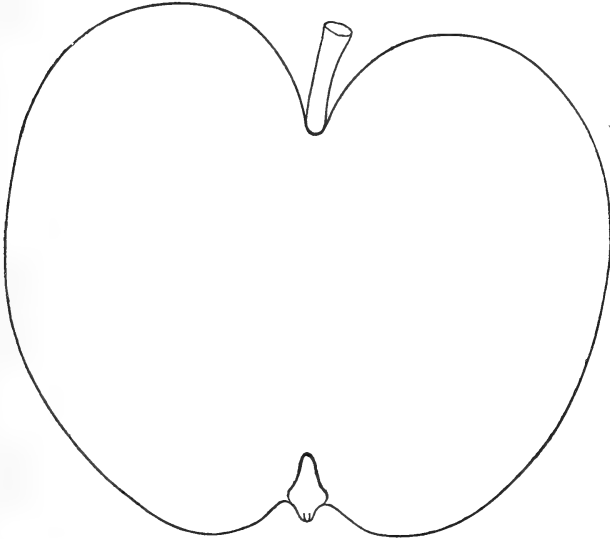
LADY'S SWEET.

Pommeroy. Lady's Sweeting. Roa Yon. Ladies' Sweet.

We consider this one of the finest winter sweet Apples for the desert yet known or cultivated in this country.

Its handsome appearance, delightful perfume, sprightly flavor, and the long time which it remains in perfection, render it universally admired wherever it is known, and no garden should be without it. It is a native of this neighborhood. The wood is not very strong, but it grows thriftily, and bears very abundantly, making a round spreading head. Young shoots reddish brown, downy. Buds small.

Fruit large, roundish ovate, narrowing pretty rapidly to the eye. Skin very smooth, nearly covered with red in the sun, but pale yellowish green in the shade, with broken stripes of pale red. The red is sprinkled with well-marked yellowish gray dots, and covered, when first gathered, with a thin white bloom. There is also generally a faint marbling of cloudy white over the red, on the shady side of the fruit, and



Lady's Sweet.

rays of the same around the stalk. Calyx quite small, set in a narrow, shallow, plaited basin. Stalk half an inch long, in a shallow cavity. Flesh greenish white, exceedingly tender, juicy, and crisp, with a delicious, sprightly, agreeably perfumed flavor. Very good or best. Keeps without shrivelling, or losing its flavor, till May.

LADY'S WHITE.

Origin, Franklin Co., O. Tree a good grower and bearer.

Fruit medium or below, roundish, whitish, very smooth and fair. Flesh white, tender, juicy, subacid. December to February.

LAFAYETTE.

Originated in Chester, N. H., on the farm of William Jenney, and first fruited in 1824, the year of General Lafayette's visit to this country, hence its name. It is much esteemed in its native locality, but has been little disseminated. Tree a good grower and an annual bearer.

Fruit medium, roundish, whitish yellow, shaded, splashed, and marbled with crimson, moderately sprinkled with light dots. Stalk rather

long, slender. Cavity medium. Calyx closed. Segments rather short to a point. Basin abrupt, corrugated. Flesh white, juicy, tender, pleasant, mild subacid. Good to very good. December to February.

LAKE.

Origin, D. C. Richmond, Sandusky, O. Tree of strong upright growth, productive. Young shoots stout, short-jointed, dull reddish brown, slightly downy.

Fruit medium, roundish oblate conical, yellow, striped, splashed, and shaded with deep red. Flesh yellowish, tender, juicy, rich, pleasant subacid. Good to very good. Core small. Ripe September and October.

LAMB ABBEY PEARMAIN.

Laneb Abbey Pearmain.

An old variety, from Kent, England. Tree not healthy.

Fruit medium, roundish, yellow, shaded, splashed, and striped with two shades of red. Flesh whitish, compact, juicy, subacid. Good. November.

LANCASTER GREENING.

Lancaster Pippin.

Origin, Lancaster Co., Pa. Tree hardy, vigorous, spreading. Young wood smooth, reddish brown. Buds prominent, flattened.

Fruit medium, roundish oblate, approaching conic. Color greenish, but when fully mature quite yellow, occasionally a blush of crimson in the sun, and pretty thickly sprinkled with russet and crimson dots and patches of russet. Stalk slender. Cavity deep, sometimes russeted. Calyx small, closed. Basin very shallow, corrugated. Flesh yellowish, compact, moderately juicy, pleasant, mild subacid. Very good. December to May. Much valued as a long keeper.

LANCASTER SWEET.

Origin, probably Pennsylvania. Tree vigorous, productive.

Fruit medium, roundish conic, whitish, splashed and marbled with red. Flesh whitish, not very tender, juicy, sweet. Good. September, October.

LONDON.

Origin uncertain, found on the farm of Buel Landon, Grand Isle, Vt., and by him introduced to notice. Tree vigorous, with low spreading branches, and bears moderately every year.

Fruit medium, roundish, inclining to conic. Color yellow, mottled and shaded with red or deep crimson, and covered with numerous grayish dots. Stalk short. Cavity large, surrounded by russet. Calyx open, basin corrugated and shallow. Flesh yellowish, firm, crisp, juicy, with a rich, mild subacid flavor, aromatic. Very good. February to May.

LANE'S RED STREAK.

Origin, orchard of Mr. Lane, Edgar Co., Illinois. Tree of moderate growth.

Fruit large, round conical, regular. Color yellow, with very fine short stripes, and specks of bright red, beautiful. Flesh white, fine, tender, pleasant subacid, of fair quality. Good. October.

LANE'S SWEET.

Origin, Boylston, Mass. Tree a good grower and productive. Young shoots smooth, light reddish brown.

Fruit medium, roundish conical, yellow, shaded, splashed, and striped with red, moderately sprinkled with large light dots. Stalk medium, slender. Calyx closed. Basin corrugated. Flesh white, crisp, tender, juicy, pleasant sweet. Good to very good. September.

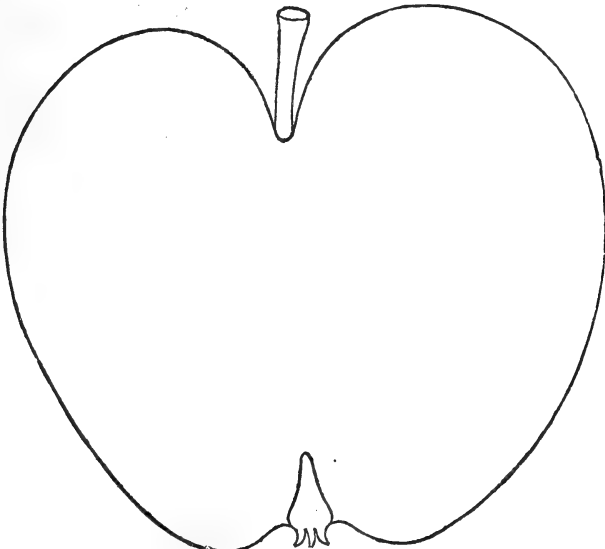
There is another Lane's Sweet which originated in Hingham, Mass. Tree vigorous and productive. Young shoots dark reddish brown, slightly downy.

Fruit medium, oblate, slightly conic. Color fine yellow, with a sunny cheek. Stalk short. Cavity large, russeted. Calyx closed, basin small, open. Flesh yellowish, not very tender, juicy, sweet, aromatic. November to March.

LANSINGBURGH.

Origin unknown. Tree upright, spreading, vigorous, moderately productive.

Fruit medium, roundish oblate, yellow, largely overspread with gray-



Large Yellow Bough.

ish red. Flesh firm, mild subacid. Good. Valuable mainly because of its long keeping qualities.

LARGE YELLOW BOUGH.

Early Sweet Bough.
August Sweet.

Sweet Harvest.
Washington, incorrectly.

Bough.
Sweet Bough.

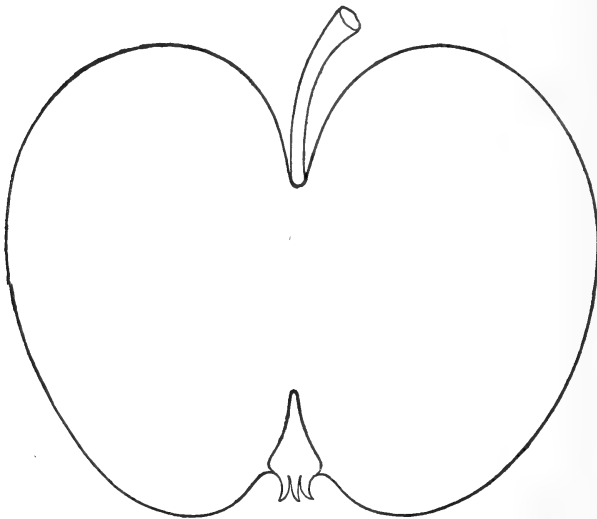
A native Apple, ripening in harvest time, and one of the first quality, only second as a dessert fruit to the Early Harvest. It is not so much esteemed for the kitchen as the latter, as it is too sweet for pies and sauce, but it is generally much admired for the table, and is worthy of a place in every collection.

Fruit above the middle size, and oblong ovate in form. Skin smooth, pale greenish yellow. Stalk rather long, and the eye narrow and deep. Flesh white, very tender and crisp when fully ripe, and with a rich, sweet, sprightly flavor. Ripens from the middle of July to the tenth of August. Tree moderately vigorous, bears abundantly, and forms a round head. Young shoots grayish brown, very slightly downy.

LARUE'S BIG GREEN.

Origin, Hardin Co., Ky.

Fruit very large, yellow. Flesh vinous, sprightly subacid. February, March. Superior for cooking. (Ky. Hort. Soc. Trans.)



Late Strawberry.

LATE STRAWBERRY.

Autumn Strawberry.

Origin, Aurora, N. Y., on lands formerly owned by Judge Phelps. Tree vigorous, upright, spreading, hardy. Young wood smooth, reddish brown, a regular and early bearer.

Fruit medium, roundish, inclining to conic, sometimes obscurely ribbed. Color whitish, striped and splashed with light and dark red, and often covered with a thin bloom. Stalk rather long, slender, curved. Cavity large, deep, slightly russeted. Basin abrupt, corrugated. Flesh yellowish white, tender, juicy, pleasant vinous, subacid. Very good. October, December.

LATE SWEET.

A variety somewhat grown in Connecticut, origin unknown.

Fruit medium, roundish, yellow, mostly shaded, splashed, and mottled with red, light and gray dots. Flesh white, compact, not juicy, sweet. December, March. A long keeper and good for cooking.

LATE WINE.

A very excellent Apple, the origin of which we have been unable to trace, nor can we identify it with any known sort. Tree upright, vigorous, an early and abundant bearer. Young shoots smooth, light reddish brown, with buds large, round, and prominent.

Fruit rather below medium, roundish conical. Sides unequal. Color mostly shades of light and dark crimson, sometimes almost purple, a thin light bloom and light dots. Stalk short, slender. Cavity acute, slightly russeted, sometimes lines or traces of russet outwards. Calyx small, closed. Basin abrupt, furrowed. Flesh white, very tender, juicy, mild, pleasant subacid. Very good. October, November.

LATHAM.

Origin, Sag Harbor, Long Island, N. Y. Tree a good grower, very productive.

Fruit medium, oblate conic, sides unequal, yellow, almost entirely overspread with light and dark red, small light dots. Flesh white, tender, juicy, pleasant, mild subacid. Good. November, December.

LAUREN'S GREENING.

Origin, Laurens Co., Ga.

Fruit large or above medium, oblate, greenish, with tinge of red in the sun. Flesh white, crisp, acid, pleasant. Good. September.

LAWVER.

Origin uncertain. Introduced by George S. Park, of Parkville, Mo., and said to have been found in an old Indian orchard in Kansas. Tree vigorous, spreading, an early and annual bearer, a beautiful fruit, and a long keeper.

Fruit large, roundish oblate. Color dark bright red, covered with small dots. Stalk medium. Cavity deep, regular. Calyx small, closed. Basin medium, furrowed. Flesh white, firm, crisp, sprightly, aromatic, mild subacid. January to May. (Prairie Farmer.)

LEAVER.

Received from South Carolina. Tree remarkably vigorous and a good bearer.

Fruit medium, roundish, slightly conical, yellow, shaded and obscurely striped and splashed with red. Stalk slender. Calyx nearly closed. Flesh yellowish, firm, crisp, juicy, rich, slightly aromatic subacid. Good to very good. Core small. November to March.

LEDGE SWEET.

Portsmouth Sweet.

Origin, Portsmouth, N. H. Tree vigorous, productive, regular bearer.

Fruit medium, oblate, whitish yellow, thinly shaded with red, splashed and striped with dark red, thinly sprinkled with light and gray dots. Stalk very short, stout. Cavity broad, not deep. Calyx closed. Segments short. Basin medium, slightly corrugated. Flesh yellowish, a little coarse, tender, juicy, mild, half sweet, pleasant. Core small. Good or very good. December to March.

LEICESTER SWEET.

Potter Sweet.

Origin, Leicester, Mass. Tree vigorous, not very productive.

Fruit rather large, flattish, greenish yellow and dull red. Flesh tender, rich, excellent, fine for dessert or baking. Winter.

LEITHEMER STREIFLING.

Of German origin.

Fruit large, roundish conical, lemon yellow, overspread, shaded, and striped and splashed with varying shades of red. Calyx closed. Basin ribbed. Flesh white, tinged with red, firm, aromatic, sweet. December.

LELAND SPICE.

Leland Pippin.

New York Spice.

Origin, Sherburne, Mass. Tree vigorous, productive.

Fruit large, roundish. Color yellow, nearly covered with bright red. Stalk short, inserted in a narrow cavity. Calyx small, closed. Basin shallow. Flesh yellowish, rather tender, juicy, with a very rich aromatic subacid flavor, excellent for dessert or kitchen. Good to very good. September, October.

LEMON PIPPIN.

Kirke's Lemon Pippin.

Pepin Limon de Galles?

An English variety, of medium size, oval. Skin lemon yellow. Flesh firm, brisk subacid. Good. October.

LESHER.

Origin, Berks Co., Pa.

Fruit medium to large, oblate, sides unequal, whitish, shaded in the sun with light purplish crimson, few small gray and light dots. Flesh white, crisp, moderately tender, pleasant subacid. Good. December to February.

LEWIS.

Origin, Putnam Co., Ind. A good grower, and productive.

Fruit medium, oblate conic, yellowish, striped with crimson, and partially covered with thin cinnamon russet, and sprinkled with gray and brown dots. Stalk short, inserted in a deep cavity. Calyx closed or nearly so, in a moderate basin. Flesh yellow, compact, with a rich subacid flavor, not very juicy. Good. November, February.

It is claimed by some that there is another Lewis, but our experience in fruiting them does not enable us to so decide.

LEWIS'S INCOMPARABLE.

An English sort, mostly valued for cooking. Tree vigorous, productive.

Fruit medium to large, roundish oblate, yellow, with streaks and shades of red. Flesh yellowish white, firm, crisp, brisk subacid. December.

LIBERTY.

Originated in Delaware Co., O. Tree vigorous, spreading, and productive. Young shoots smooth, reddish brown.

Fruit medium, roundish oblong, oblate, oblique, conical, yellowish, shaded, splashed, and striped with shades of dull red. Flesh yellowish, rather firm, mild subacid. Core small. Good. Valued mainly for its keeping qualities. December to May.

LIGOZ.

Origin unknown.

Fruit large, roundish, yellow, shaded, splashed, and striped with shades of red. Flesh whitish, a little coarse, juicy, crisp, pleasant subacid. Good. Core small. December, January.

LIMBER TWIG.

James River. Red Limber Twig ?

An Apple much cultivated South and West. Origin, supposed North Carolina. Tree hardy and productive, roundish, spreading, somewhat drooping.

Fruit medium or above, roundish oblate, inclining to conic, greenish yellow, shaded and striped with dull crimson, and sprinkled with light dots. Stalk of medium length, inserted in a broad, deep cavity, surrounded by thin, green russet. Calyx closed, set in a small, uneven basin. Flesh whitish, not very tender, juicy, with a brisk, subacid flavor. Good. January, April.

LINCOLNSHIRE HOLLAND PIPPIN.

Striped Holland Pippin.

A second-rate cooking Apple.

Fruit above medium, roundish, slightly oblate, yellow, stripes of red in the sun. Flesh white, subacid. November, January.

LINDENWALD.

Origin, orchard of J. G. Sickles, Stuyvesant, N. Y. Tree moderately vigorous, upright.

Fruit medium, roundish oblate, surface oily, yellow, light shades of red in the sun, few indistinct dots. Stalk short. Cavity deep, often russeted. Calyx closed. Basin deep, slightly furrowed. Flesh yellowish, crisp, juicy, pleasant subacid. Good to very good. September.

LINDLEY'S NONPAREIL.

Origin, Chatham, N. C. Tree delicate, slender, poor grower, great bearer.

Fruit small, oblate, yellow, blush in the sun. Flesh yellowish, rich, crisp, aromatic, nearly sweet. Good to very good. August, September.

LIPPINCOTT SWEET.

Origin, New Jersey.

Fruit medium, roundish conical, pale yellow, thin shade of crimson in the sun, many brown and russet dots. Flesh white, tender, moderately juicy, pleasant mild sweet. Good. Core small. December to March.

LITCHFIELD PIPPIN.

Raised by Wm. Hutchins, of Litchfield, Me.

Fruit medium to large, oval, yellow, with red in sun. Flesh white, mild subacid. (Me. Rep.)

LITTLE BEAUTY.

This little Apple, says Ronalds, has the property of holding firmly to the branches, so as not easily to be dislodged. Tree upright, and a great bearer.

Fruit small, roundish oblate, yellow bronzed in the sun. Flesh yellowish, rich, but rather dry. December, February.

LOAN'S PEARMAIN.

An old variety. Tree a poor grower.

Fruit small, roundish oblong, greenish, with stripes of dark red. Flesh firm, juicy, crisp. Good. September to November.

LOCY.

Fruit globular, sometimes inclining to oblate, and sometimes oblong or conic, greenish, shaded and striped with dull red. Flesh greenish, crisp, tender, juicy, pleasant. Hardly good. November, February.

LODGEMORE NONPAREIL.

Clissold's Seedling.

An English dessert Apple.

Fruit medium, roundish, deep yellow, with blush in sun. Flesh yellowish, firm, crisp, juicy, aromatic. February, March. (Hogg.)

LONDON PIPPIN.

Five-Crowned Pippin. New London Pippin. Royal Somerset.

A very old English Apple, mostly valued for cooking or drying. Tree a moderate grower, productive.

Fruit large, roundish, slightly conical, flattened at base, yellow, with a tinge of red in the sun. Calyx small, closed. Flesh white, rather firm, subacid. Good. November to February.

LONDON SWEET.

Heicke's Winter Sweet.
Clark's Seedling.

Mrs. Weaver's Sweet?
London Winter Sweet.

Origin supposed near Dayton, O. Tree vigorous, productive, valuable in rich deep soils. Young wood, dull grayish brown.

Fruit medium or large, roundish oblate, pale yellow, with very slight indications of russet, a little green russet around the stalk, and sparsely covered with brown specks. Stalk short, in a large cavity. Calyx closed, set in an abrupt, open, slightly uneven basin. Flesh whitish, juicy, tender, fine, delicate, sweet, slightly aromatic. Good to very good. November to February.

LONG ISLAND PEARMAIN.

Hollow Crown Pearmain.

An old variety, described by Coxe, and while it is somewhat extensively grown, has been sometimes confounded with Winter Pearmain, which is an entirely different fruit.

Fruit large, roundish oblong, having a large hollow basin or crown, yellow, splashed and streaked with red, and some faint russet spots. Flesh coarse, tender, somewhat dry, aromatic. Good. October to February.

LONG ISLAND PIPPIN.

Origin unknown. Specimens from T. T. Lyon, Plymouth, Mich.

Fruit large, roundish, flattened, yellowish green. Flesh greenish yellow, breaking, fine-grained, juicy subacid. Almost best. January. (Warder.)

LONG ISLAND RUSSET.

An old Apple, much grown in New Jersey and Long Island, and valued highly for cider purposes. Tree vigorous, spreading, and productive.

Fruit below medium, roundish, yellow, mostly overspread with dull russet, black spots or blotches when fully ripe. Flesh yellowish, tough, rather dry, almost sweet. October to February.

LONG JOHN.

Of unknown origin.

Fruit large, conical, greenish yellow. Flesh yellowish white, rather dry, subacid, valuable only for its size and long keeping quality. March to May.

LONG'S RED WINTER.

H. R. Robey, of Fredericksburg, says this was found in the forest about fifteen miles from that place.

Fruit medium to large, roundish oblate, yellow, striped and splashed with bright red, sprinkled with a few brown dots. Flesh yellowish, tender, juicy, crisp, subacid. Good to very good. December to February.

LONG START.

Westmoreland Longstart.

An English culinary Apple.

Fruit medium, roundish, yellow, mostly overspread and streaked with red. Flesh white, crisp, tender, pleasant subacid. October, December.

LONG STEM.

There are four distinct Apples under this name, easily distinguished by the wood of the young shoots.

The Long Stem of Connecticut is, perhaps, the oldest variety. The young shoots are dull reddish brown, somewhat downy, with prominent rounded, flattened buds.

Fruit medium, roundish oblate, yellow, with greenish dots, and small patches of russet. Calyx small, in a small basin. Flesh yellow, fine-grained, somewhat spicy, sweet, and rich. Good. September to January.

The Long Stem of Massachusetts has rather slender young shoots of reddish brown, somewhat grayish, and slightly downy, with small clear red buds.

Fruit medium, roundish oblate, yellow, with a slight blush in the sun, moderately sprinkled with light and gray dots. Calyx medium, closed. Flesh yellowish, tender, juicy, sprightly subacid, aromatic. Good. October, February.

The Long Stem of Pennsylvania has young shoots, of a yellowish brown, with very small short buds.

Fruit medium or below, roundish, inclining to oblong, truncated, yellowish, shaded, splashed, and striped with red mostly over the whole surface, many small light and gray dots. Stalk long, slender, curved, with bracts. Calyx closed. Segments a little recurved. Basin corrugated. Flesh whitish, crisp, tender, mild subacid, slightly aromatic. Good to very good. November to February.

The Long Stem of Kentucky has reddish grayish brown young wood, slightly downy, with short, round, flattened buds.

Fruit medium, roundish oblate, greenish, shaded, mottled, and rather indistinctly splashed and striped over all with dull dark red, and with many large light gray dots. Flesh greenish white, rather compact, mild, almost sweet, subacid. Core small. Good to very good. December to March.

LONGVILLE'S KERNEL.

Sam's Crab.

English. Fruit rather below medium size, oval, rather flattened,

greenish yellow, streaked with pale brownish red, with a few streaks of bright red. Flesh firm, yellow, slightly perfumed, subacid. Good. August and September.

LORD BURLEIGH.

Lord Burghley.

A new celebrated English dessert Apple, as yet untested here.

Fruit medium, roundish, slightly oblate, and ribbed, yellow, with a bright crimson cheek, and many russet specks. Flesh yellowish, tender, juicy, sweet pine-apple flavor. January to May. (Hogg.)

LORD SUFFIELD.

A valuable English kitchen Apple, described as an improvement on Keswick Codlin. The tree hardy, and a great bearer.

Fruit above medium, conical, greenish yellow, with a tinge of red in the sun. Flesh white, firm, tender, brisk subacid. August and September.

LORICK CLUSTER.

Said to have originated in Georgia. Tree a poor grower, but a great bearer and keeper.

Fruit small, roundish conical, pale green, with a brown tinge in the sun. Flesh greenish white, pleasant, mild subacid. Good. Core small. January to April.

LORING SWEET.

Fruit medium, oblate, greenish yellow, shaded with red, and sprinkled with brown specks. Flesh tender, juicy, sweet, and rich. Good. November to June.

LOUDON PIPPIN.

White's Loudon Pippin. Lady Washington?

Origin, farm of Mr. White, Loudon Co., Va., and much cultivated and valued in that section. Tree very vigorous, upright spreading.

Fruit large, oblate, approaching conic, light yellow, sometimes blush of red in the sun, sprinkled with a few grayish dots. Stalk short, inserted in a large cavity, surrounded by russet. Calyx large, open. Basin smooth and even, rather deep. Flesh yellowish, compact, tender, juicy, subacid. Good to very good. December to February.

LOUISE RENARD.

Originated in Belgium.

Fruit medium, roundish oblate, conical, yellow, shaded with bright red in the sun, small reddish gray spots. Stalk short. Cavity deep, irregular. Calyx open. Flesh very white, tender, subacid, aromatic. (An. Pom.)

LOVETT'S SWEET.

Origin, Beverly, Mass.

Fruit medium, roundish oblate conic. Skin yellow. Flesh yellow, moderately juicy, sweet and pleasant. Good. October to February.

LOWELL.

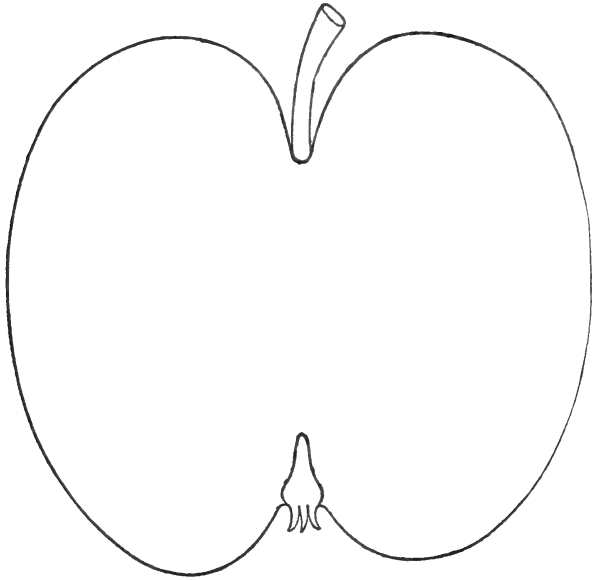
Queen Anne.
Orange.

Michigan Golden.
Tallow Apple.

Greasy Pippin.
Golden Pippin of some.

Origin unknown. Tree hardy, vigorous, spreading, productive. Young wood reddish brown.

Fruit large, roundish oval or conic, bright waxen yellow, oily. Stalk of medium length. Cavity deep, uneven. Basin deep, abrupt, and furrowed. Calyx closed. Flesh yellowish white, with a brisk, rich, rather acid flavor. Good to very good. September, October.



Lowell.

LOWRE QUEEN.

Loure Queen.

Origin unknown, somewhat extensively grown in Central Ohio. Trees upright, early bearers.

Fruit medium, roundish, flattened, yellow, striped and splashed with dull red. Flesh yellowish white, tender, juicy. Very good. November, February. (Elliott.)

LUCÉ'S EARLY JOE.

Early Joe, incorrectly.

Origin unknown.

Fruit medium, roundish oblate, whitish, with a blush in the sun, few brown dots. Flesh yellowish, tender, crisp, juicy, mild, pleasant subacid. Good. September.

LUCOMBE'S PINE-APPLE.

Pine-Apple.

Pine-Apple Pippin.

An English Apple, rather below medium size, ovate conical, obscurely ribbed, pale yellow, bronzed in the sun. Flesh yellowish white, tender, juicy, subacid, aromatic. Good. October, December.

LUCOMBE'S SEEDLING.

English. Fruit large, roundish, angular, whitish, striped and splashed with red. Flesh firm, juicy, good for cooking. October, November.

LUDWIG.

Haas.

Originated on the land of — Ludwig, Bucks Co., Pa., and considerably grown in its native locality.

Fruit large, roundish, slightly conical, whitish, splashed, mottled, and shaded with light red, many dots, with dark centres. Stalk short, slender. Cavity rather large, a little greenish russet. Calyx closed. Basin slightly corrugated. Flesh white, sometimes a little stained next the skin, fine-grained, juicy, mild subacid. Core rather small. Good to very good. November to March.

LYMAN'S LARGE SUMMER.

Large Yellow Summer.

A large and handsome American fruit, introduced to notice by Mr. S. Lyman, of Manchester, Conn. The bearing trees are easily recognized by their long and drooping branches, which are almost wholly without fruit-spurs, but bear in clusters at their extremities. They bear poorly until the tree attains considerable size, when it yields excellent crops.

Fruit quite large, roundish, flattened at the ends. Skin smooth, pale yellow. Flesh yellow, tender, subacid, and good for the table or for cooking. Last of August.

LYON'S SWEET.

Originated in Connecticut. Tree a good grower and great bearer.

Fruit medium, roundish, inclining to conic, yellow, shaded, striped, and splashed with red, light and gray dots. Stalk short. Calyx closed. Flesh whitish, rather compact, juicy, tender, sweet. Good. December.

LYSCOM.

Osgood's Favorite.

Matthew Stripe.

Origin, Massachusetts. Tree vigorous, upright, spreading. Young shoots dark brown, downy.

Fruit large, roundish, greenish yellow, with a few broken stripes or splashes of red. Stalk short, planted in a deep, round, even cavity.

Calyx large, in a broad, plaited basin. Flesh fine-grained, and exceedingly mild and agreeable in flavor. Good to very good. September to November.

McAFEE'S NONSUCH.

McAfee's Red.

Originated at McAfee's old Fort in Kentucky. Good grower, very productive. Young shoots smooth reddish brown.

Fruit large, globular, inclining to oblate. Skin yellowish green, shaded and striped with crimson and covered with a thin bloom. Stalk short, inserted in a large cavity. Calyx closed, set in a small basin. Flesh whitish, solid, crisp, subacid. Good to very good. December to March.

McCoy's PIPPIN.

Origin, Loudon, Mercer Co., Pa. Tree of medium upright growth, productive, valued as a showy market sort, and also for cooking.

Fruit large, oblate, a little oblique, greenish white, a shade of dull red in the sun, brown dots. Flesh white, crisp, tender, moderately juicy, pleasant, mild subacid. Good. Core small. October, December.

McDANIEL.

Origin, Green Co., Ohio.

Fruit full medium, regular, oblate, yellow, covered with rich crimson, indistinct stripes. Dots light gray. Flesh yellow, solid, juicy, subacid, rich, piquant. October, November. (Warder.)

McDOWELL'S SWEET.

Origin, North Carolina.

Fruit medium or above, roundish oblate, fine yellow, mostly over-spread, shaded, and splashed with light and dark red, almost purplish in the sun. Stalk short. Calyx small, closed. Basin narrow, corrugated. Flesh whitish, tender, juicy, mild, refreshing, sweet. Good to very good. October, December.

McHENRY.

Origin, Elizabethtown, Indiana. Growth upright and free, moderately productive. Color and quality similar to American Summer Pearmain. September to December.

MACKAY SWEET.

Origin, Massachusetts. Tree a good grower and productive.

Fruit medium, roundish oblate conic, yellow, slight tinge of red in the sun. Stalk short. Cavity large, slightly russeted. Calyx small, closed. Flesh whitish, tender, juicy, mild, sweet, pleasant. Good. Core small. December to March.

MCKIM'S VANDERVERE.

Origin, on the grounds of Robert McKim, Centre Co., Pa. Tree vigorous, upright.

Fruit medium, roundish oblate, deep yellow, splashed, striped, and mottled with shades of red, light and brown dots. Flesh white, tender, not very juicy, acid. Good. September, November.

MCKINLEY.

Fruit medium, roundish flattened, slightly conic, dull red on greenish yellow. Stripes indistinct. Flesh breaking, fine-grained, juicy, subacid. Good. December, January.

MACLEAN'S FAVORITE.

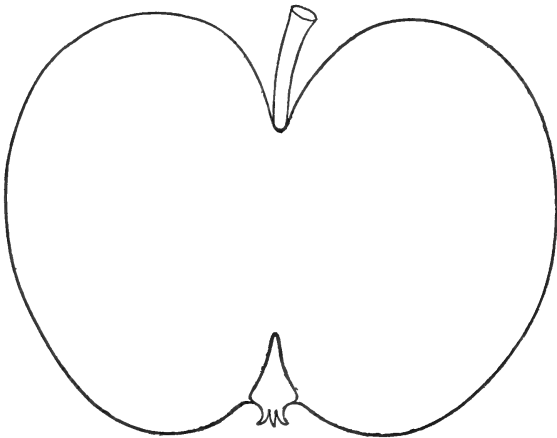
An English Apple of little value.

Fruit medium, roundish, yellow. Flesh crisp, acid. November to February.

MCLELLAN.

Martin.

Origin, Woodstock, Conn. Tree thrifty, upright, very productive, annual bearer, and handsome. Young shoots, dull grayish reddish brown, slightly downy.



McLellan.

Fruit medium or above, roundish oblate, slightly conic, very regular, and fair. Color yellow, mostly striped, marbled, and splashed with red. Stalk short, inserted in a rather deep cavity. Calyx small, nearly closed. Basin moderate, slightly uneven. Flesh white, very tender, juicy, with a fine vinous flavor, almost saccharine. Very good. December to March.

MACOMBER.

Origin, Guilford, Maine. Tree a good annual bearer.

Fruit full medium, oblate, angular, yellowish, shaded and striped with red. Stalk short. Cavity large. Calyx closed. Basin large and regular. Flesh white, fine-grained, tender, subacid. Good. Core small. December, January.

MAGNOLIA.

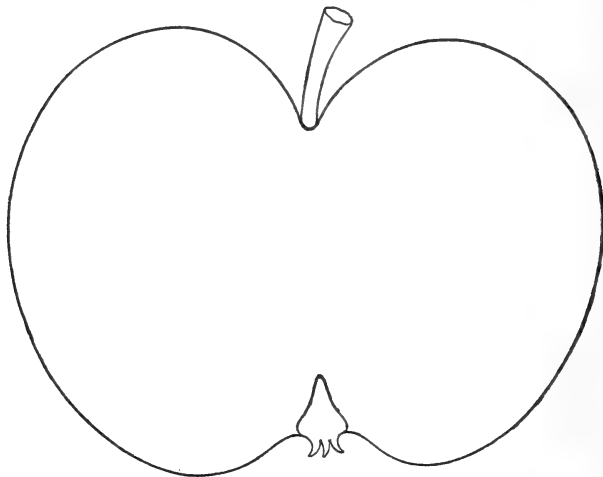
Origin, Bolton, Mass. Growth moderate, productive.

Fruit medium, roundish oblate conic, yellow, beautifully striped and mottled with crimson. Stalk short, in a broad, uneven cavity. Calyx closed. Basin small. Flesh white, tender, juicy, brisk, aromatic, subacid. Good to very good. October.

We have also received from J. W. Dodge, Tennessee, an apple under this name, the origin of which cannot be well traced. It is large, roundish oblate, inclining to conic, irregular, yellow, striped, mottled, and splashed with red. Flesh yellow, a little coarse, tender, juicy, pleasant, slightly aromatic. Very good. December, January.

MAIDEN'S BLUSH.

A remarkably beautiful Apple, a native of New Jersey, and first described by Coxe. It begins to ripen about the 20th of August, and continues until the last of October. It has all the beauty of color of the pretty little Lady Apple, and is much cultivated and admired, both for the table and for cooking. It is also very highly esteemed for drying.



Maiden's Blush.

This variety forms a handsome, rapid-growing tree, with a fine spreading head, and bears large crops. It is very valuable as a profitable market sort.

Fruit of medium size, very regularly shaped, and a little narrower towards the eye. Skin smooth, with a delicate waxen appearance, pale lemon yellow in the shade, with a brilliant crimson cheek next the sun, the two colors often joining in brilliant red. Stalk short, planted in a rather wide deep hollow. Basin moderately depressed. Calyx closed. Flesh white, tender, sprightly, pleasant subacid. Good.

MAIDEN'S FAVORITE.

Maiden's Apple.

Origin, farm of J. G. Sickles, Stuyvesant, N. Y. Its delicacy and beauty will make it desirable for the amateur. Tree of rather slow growth, upright slender branches, an annual and good bearer. Young shoots smooth, clear reddish brown.

Fruit medium or below, roundish, sometimes slightly conic, generally cylindric, but often very obscurely ribbed, whitish or pale waxen yellow, shaded and sometimes slightly mottled with crimson, and sparsely sprinkled with minute dots. Stalk short, small, surrounded by thin russet, in a deep, uniform cavity. Calyx firmly closed. Basin slightly corrugated, deep, open. Flesh whitish, tender, crisp, with a pleasant, very delicate, vinous subacid. Good to very good. Core small. October to January.

MAJOR.

Originated with Major Samuel McMahan, Northumberland Co., Pa. This is a showy market Apple of really excellent quality. The tree is a rapid and vigorous grower, with rather irregular, upright, spreading shoots, reddish brown, slightly grayish.

Fruit large. Form roundish, often oblate, slightly inclining to conic. Sides sometimes unequal. Color greenish, shaded and rather obscurely striped and splashed with deep red, many light russet gray dots. Stalk short. Cavity deep. Calyx large, with stiff, short segments. Basin large, broad, and furrowed. Flesh yellowish, rather firm, crisp, juicy, rich subacid. Core small. Very good. November to April.

MALA CARLE.

Pomme Finale.

Charles Apple.

Mela di Carlo.

Mela Carla.

Pomme de Charles.

The Male Carle is the most celebrated of all Apples in Italy and the South of Europe, whence it comes. Here or in New England it does not always attain perfection, but south of New York it becomes beautiful and fine, as it needs a warm and dry soil.

Fruit of medium size, very regularly shaped, a little narrow towards the eye. Skin smooth, with a delicate waxen appearance, pale lemon yellow in the shade, with a brilliant crimson cheek next the sun, the two colors often joining in strong contrast. Flesh white, not very juicy, but tender, and with a delicate, slightly rose-perfumed flavor. Good. September to January.

MAMMA.

A Southern Apple of unknown origin. Tree a very thrifty, compact grower. Young wood reddish.

Fruit above medium, oblate, crimson red. Flesh yellowish, rich, aromatic subacid. October, November.

MAMMOTH JUNE.

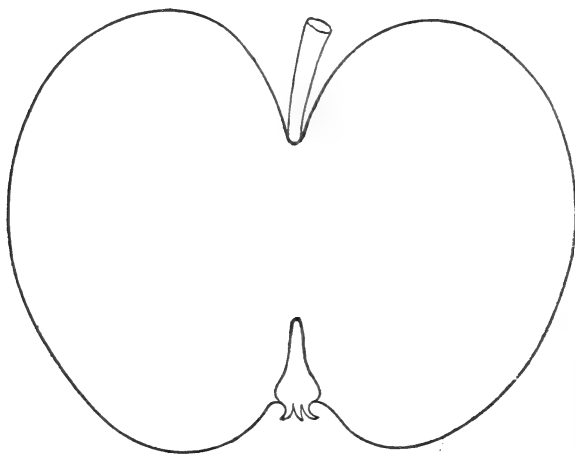
Origin, Christian Co., Ky. Tree an upright, moderate grower; not an early bearer.

Fruit medium, roundish oblate conic, whitish yellow, striped and splashed with shades of red, light dots. Flesh very white, tender, not very juicy, mild subacid. Good. July, August.

MANAEN.

This variety was grown from seed of the Talman Sweet, by F. R. Miller, Sugar Grove, Warren Co., Pa., and first fruited in 1867. The tree is said to be a thrifty, upright grower. Young wood dark reddish brown, with a few white raised dots, and slightly downy. Leaf broad, roundish oval, coarsely serrated.

Fruit medium size, roundish oblate conical, irregular, or partially ribbed, pale whitish yellow, with deep carmine dots and marblings in sun, russet lines radiating from the stalk, scattering minute, raised, gray, or russet dots in the shade. Stalk slender. Cavity deep, broad, open, russeted. Calyx partially closed, with erect recurved, divided segments. Basin rather deep, abrupt, generally irregular in form, usually clean and smooth, but occasionally with russeted broken lines. Flesh yellowish white, granulated, tender, moderately juicy, mild sweet, aromatic. Very



Mangum.

good. Core small. Seeds dark rich brown, oblong, pointed. Season, last of August and September. A new variety of fine promise as an amateur's fruit. (Rural New Yorker.)

MANGUM.

Fall Cheese of Va.	Cheese.	Seago.
Gully.	Carter of Ala.	Maxfield.
Carter's Winter.	Patton.	Johnston's Favorite.
Alabama Pearmain ?	Sam Wingard.	Blakely.

A Southern variety of uncertain origin. It is extensively cultivated South, where it is counted as one of the most desirable and reliable apples. Tree a good, fair grower, with young shoots of a grayish brown, very productive.

Fruit medium, oblate, slightly conic, yellowish, striped and mostly shaded with red, thickly sprinkled with whitish and bronze dots. Stalk short and small, inserted in a broad cavity surrounded by russet. Calyx partially closed. Basin slightly corrugated. Flesh yellow, very tender, juicy, mild subacid. Very good to best. October, November.

MANK'S CODLIN.

Irish Pitcher.	Frith Pitcher.	Irish Codlin.
Eve of Scotland.	Frith Pippin.	

An old English culinary Apple, long cultivated and esteemed here as well as abroad for its productiveness, hardiness of tree, and early bearing habit.

Fruit medium, roundish oblong conical, one side of apex end higher than the other, clear pale yellow, with a bronzed cheek in sun. Flesh yellowish white, fine crisp, brisk subacid. Good. August to November.

MANNINGTON'S PEARMAN.

Origin, Sussex, England. A dessert fruit of considerable esteem abroad, and here fully sustains its foreign character. Tree hardy, and early bearer.

Fruit below medium, roundish conical, truncated, yellow, partially russeted, shaded and splashed with red, prominent, rough, light gray dots. Flesh yellowish, crisp, tender, brisk subacid. Very Good. Core medium. October, December.

MANOMET.

Horse Block.	Manomet Sweet.
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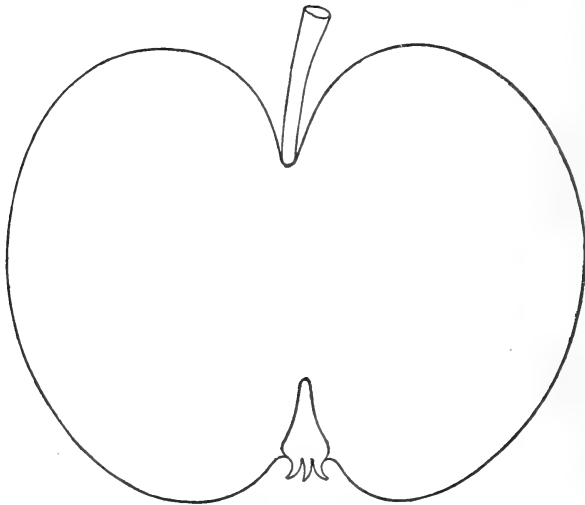
Origin, Plymouth, Mass. Tree vigorous and productive. Young shoots dark reddish brown. This is one of the finest of sweet apples, esteemed highly wherever grown.

Fruit medium, roundish oblate, fine yellow, with a richly shaded cheek. Stalk rather slender, inserted in a shallow cavity, slightly surrounded by russet. Calyx closed. Basin shallow, corrugated. Flesh tender, juicy, sweet, and rich. Very good. Core small. August, September.

MANSFIELD RUSSET.

Brought into notice by Dr. Joseph Mansfield, of Groton, Mass. Tree vigorous, upright, and very productive.

Fruit small, roundish oblong, inclining to conic, cinnamon russet. Stalk long, inserted in a deep furrowed cavity. Calyx partially closed, set in an open basin. Flesh not very juicy, rich, aromatic, saccharine, vinous. Good to very good. Keeps till April or May.



Manomet.

MARBLE SWEET.

Virginia Sweet.

McIntire's Sweeting.

Fruit medium to large, roundish ovate, marbled dull red and yellow. Flesh sweet, dry. November, February. (Elliott.)

MARCH'S RED WINTER.

March's Red Seedling.

Origin, on the farm of George B. March, near Chillicothe, Ohio. Tree a moderate grower.

Fruit medium or below, roundish, yellow, overspread and shaded with rich bright red. Flesh yellowish, tender, moderately juicy, pleasant subacid. Good. November to January.

MARGIL.

Neverfail.

Munche's Pippin.

An old English dessert Apple, of slender growth.

Fruit small, roundish oblate, yellow, striped with red. Flesh yellow, firm, aromatic. Good. October, November.

MARIA BUSH.

Origin, Lancaster, Co., Pa. A healthy grower and good bearer.

Fruit large, roundish oblate, yellow, shaded, striped, and splashed with red, and thinly sprinkled with russet dots. Stem slender. Cavity large. Basin abrupt and open. Flesh white, very tender, juicy, subacid. Good. October, November.

MARKS.

Origin, Berks Co., Pa., on the lands of Mr. Klinger. Tree vigorous, upright, productive.

Fruit medium size, roundish, tapering slightly to the crown, yellowish white, with a few russet dots, and nearly covered with a faint orange blush. Flesh whitish, tender, brisk subacid. Good. January to March. The fruit drops badly.

MARMALADE PIPPIN.

Althorp Pippin.

Welsh Pippin.

This is an English Apple, from Derbyshire. Tree hardy, and profuse bearer.

Fruit medium to large, roundish oblong, truncated, yellowish, bronzed in the sun, numerous dots and some pearly white specks. Flesh yellowish white, firm, juicy, sweet. October to February. There is another apple under this name, which is striped with red and ripens in August.

MARSHALL.

Largely grown in some parts of New Hampshire, as a profitable market Apple, on account of its productiveness and very late keeping.

Fruit above medium, roundish, a little flattened, deep green, mostly overlaid with a fine thick sprinkling of whitish green specks, a little blush and crimson specks next the sun. April, May. (Me. Rep.)

MARSHALL'S SWEET.

Originated with S. B. Marshall, Ohio. Tree a moderate stocky grower, forming a round head.

Fruit medium or below, roundish oblate conic, sides unequal, yellow, splashed and striped with light and dark red. Flesh white, a little stained next the skin, tender, moderately juicy, pleasant, sweet. Good. November, December.

MARSTON'S RED WINTER.

Origin, Greenland, N. H. Tree hardy, of moderate growth. Young shoots reddish brown, slightly downy. Great bearer, and keeps as well as Baldwin.

Fruit above medium size, roundish conic. Stalk rather slender, in a narrow, deep, compressed, slightly russeted cavity—sometimes with a lip. Calyx partially closed. Segments long, in a deep corrugated basin. Color whitish yellow, shaded and striped with bright red and crimson, thickly sprinkled with minute dots. Flesh whitish yellow, very juicy, tender, sprightly subacid. Good to very good. December to March.

MARTIN.

Origin, supposed Ohio. Tree thrifty, vigorous, spreading, productive.

Fruit medium to large, roundish oblate, yellow mixed and striped red. Stalk short. Flesh light yellow, rather tender, juicy, subacid, agreeable. Almost good. August, September. (Am. Hort. An.)

MARTIN NONPAREIL.

An English Apple. The tree a vigorous grower, hardy, and a good bearer.

Fruit small, roundish or roundish oblate, yellow, with many traces and patches of russet, and small gray and brown dots. Flesh yellow, compact, juicy, brisk, rich subacid. Very good. Core small. November to March. Too small for profit.

MARY.

Origin unknown.

Fruit below medium, roundish, yellow, overspread with light red, striped and splashed with crimson, few light dots. Stalk short, small. Calyx small, closed. Flesh whitish, rather firm, crisp, tolerably juicy, mild subacid, almost sweet. Good to very good. Core small. January to March.

MARYLAND BEAUTY.

Origin unknown.

Fruit medium, oblate, whitish shaded, splashed and marbled with light and dark red, light dots. Flesh whitish, rather coarse, tender, juicy, brisk subacid. Good. Core large. October, November.

MASTEN.

Masten's Seedling.

Originated on the farm of R. C. Masten, Pleasant Valley, Dutchess Co., N. Y. Tree vigorous, with a broad, spreading, well-formed head, productive. Young shoots grayish brown.

Fruit rather below medium, roundish conical, oily, yellow, brownish or faint blush in the sun, brown and light dots. Stalk short, small. Cavity narrow. Calyx closed. Basin small, uneven. Flesh whitish, fine-grained, rather juicy, pleasant subacid. Good. December to March.

MASTER'S.

Master's Seedling.

An old Kentish, England, Apple. Tree hardy, vigorous, and productive.

Fruit medium, round, yellowish green, red cheek in the sun. Flesh white, firm, acid. November, January.

MATLOCK'S SUMMER.

Fruit large, oblate, white, sometimes with a blush or indistinct splashes and stripes. Flesh tender, juicy, almost sweet. Good. August.

MATSON.

Fruit large, red streaked, showy, acid, cooking. (A. Pom. S.)

MATTAMUSKEET.

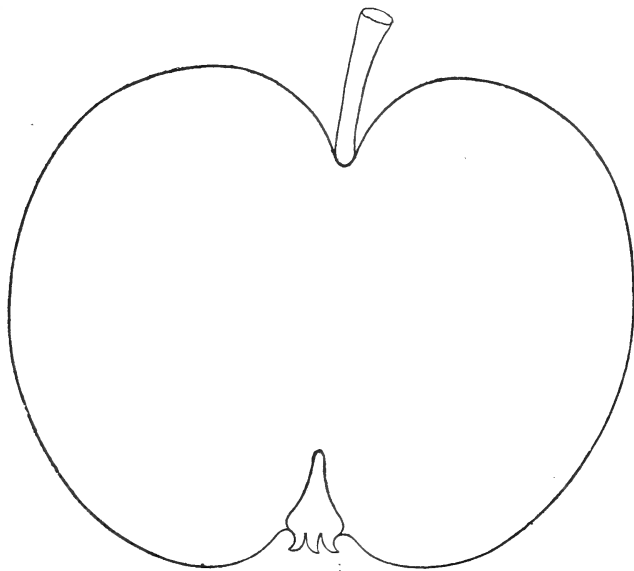
Origin, Eastern North Carolina. Tree vigorous, productive. Young wood dull reddish brown, slightly downy.

Fruit medium, roundish oblate conic, yellow, shaded and splashed with light and dark red. Flesh whitish yellow, crisp, brisk subacid. Good. December to March. Valued principally for its keeping qualities.

MAUCK.

A Pennsylvania Apple.

Fruit large, conical, greenish yellow, blush in the sun. Flesh tender, pleasant. Good. Core large, hollow. October, November.



Maverack's Sweet.

MAVERACK'S SWEET.

Raised by Dr. Maverack, Pendleton District, S. C. Tree vigorous upright, spreading, sometimes irregular, an early and good bearer. Young shoots reddish grayish brown, slightly downy.

Fruit large, roundish oblate, yellow, mostly shaded with rich deep red, and sprinkled with gray dots. Stalk short, inserted in an open cavity. Calyx open, set in a deep corrugated basin. Flesh yellowish, rather coarse-grained, breaking, tender, rich, sweet. Good to very good. Core small. November to February. A valuable sweet apple for market or cooking.

MAXEY.

This variety we received from A. L. Woodson, Hart Co., Ky., by whom the tree is described as a good grower, an annual but not early bearer, producing fair, even-sized fruit, that keeps well into May and June.

Fruit above medium, roundish, approaching conical, light greenish ground, with broken red stripes and splashes, from the stem end, of pinkish red, light dots and indistinct dark specks. Stalk medium length and size. Cavity regular, round, smooth, lightly russeted. Calyx large, open, with divided recurved segments. Basin shallow, broad, regular. Flesh whitish, not very juicy or tender, subacid. Good. Core small. May to July.

MAY.

May Apple.	Pillkin.	Plymouth Greening.
Rhenish May.	Winter May.	May of Myers.
May Seek-no-further of some.		

An old Apple, considerably grown at the West. Origin unknown. Its only value is because of its long keeping quality. Tree a poor grower, but a good bearer. Young shoots dark reddish brown, downy somewhat towards the end.

Fruit medium, roundish conical, pale greenish yellow, slight brownish in sun. Flesh whitish, fine-grained, compact, not very juicy, mild subacid. Core rather large, and open. Good. February to June.

MAY SEEK-NO-FARTHER.

Lop-sided Pearmain. Pilliken. May, erroneously.

Origin unknown. Considerably grown in some parts of the West, and valued only because of its productiveness and long keeping.

Tree spreading, hardy, productive.

Fruit medium, oblate, oblique, dull greenish, mostly overspread and shaded with obscure stripes and marblings of dull dingy red. Flesh firm, dry, subacid. Good. February to May.

MEACH.

From J. M. Ketchum, Brandon, Vt.

Fruit large, roundish, slightly conic, greenish yellow, striped and mottled with light red, and sprinkled with brown dots. Flesh yellowish, rather fine, juicy, mild subacid. Good. October, November.

MEADOW SWEET.

Origin unknown.

Fruit medium, oblate or roundish oblate, pale yellow, gray and light dots. Flesh whitish, moderately tender and juicy, rather rich, sweet. Core small. Good. November, February.

MEAR'S SWEET.

Mear's Seedling.

Origin, near Cincinnati, Ohio.

Fruit below medium, roundish oblate, greenish yellow, brownish in the sun. Stalk long. Calyx closed. Flesh whitish, juicy, tender, mild, sweet subacid. Core small. Good. January to March.

MEISTER.

From Berks Co., Pa.

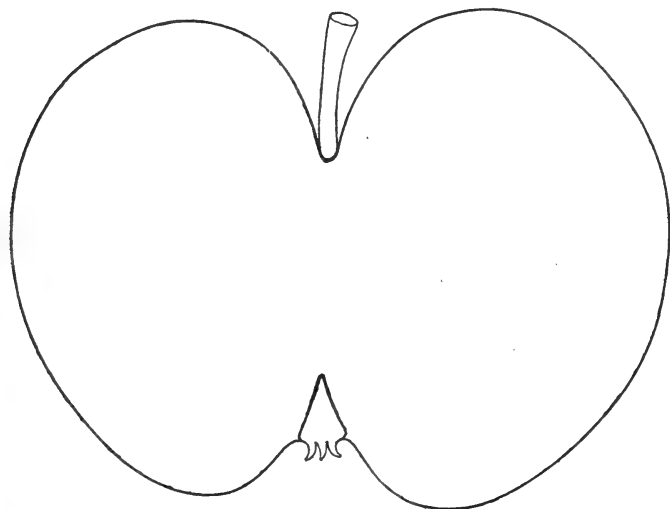
Size below medium, roundish conical, greenish yellow, striped with red, with numerous white spots, and russet dots. Flesh tender, pleasant subacid. Good. October.

MELON.

Norton's Melon. Watermelon.

Origin, East Bloomfield, N. Y. Tree of rather slow growth while young, a good bearer. Young shoots dull grayish reddish brown. One of the best and most valuable sorts for the dessert; a little too tender for shipping long distances.

Fruit medium or above. Form roundish oblate, slightly conic, obscure ribs towards apex. Color pale yellow, nearly covered with light



Melon.

crimson, splashed, striped, and mottled with carmine, some traces of russet, and moderately sprinkled with light and brown dots. Stalk medium, slender. Cavity large, deep, regular, often considerably russeted. Calyx partially closed. Segments medium, erect, sometimes a little re-

curved. Basin rather abrupt, slightly corrugated. Flesh white, very tender, juicy, refreshing, lively vinous subacid. Core small. Best. November to March.

MELROSE.

White Melrose.

An old Scotch Apple little known. Tree a strong, healthy grower and a free bearer.

Fruit large, roundish oblate conical, much ribbed toward the apex, pale yellow, becoming deeper in the sun, and at times many crimson spots. Flesh yellowish white, firm, sweet subacid. October, December.

MELT IN THE MOUTH.

Origin, Chester Co., Pa. Tree moderately vigorous, spreading. Young shoots long, slender, dark reddish brown, downy at ends.

Fruit medium or rather below, roundish, slightly conic, deep red, splashed and marbled on a yellow ground, with a few small white dots. Stalk long, very slender, curved, in a small cavity. Calyx closed, in a rather abrupt basin. Flesh yellowish white, tender, juicy, with a mild, rather rich, pleasant subacid, somewhat resembling Summer Pearmain. Very good. September to November.

MELVIN SWEET.

Origin, Concord, Mass. Tree vigorous and productive.

Fruit medium, roundish, yellowish green, striped with pale red. Flesh rich and sugary. November to February. (Hov. Mag.)

MENAGÈRE.

We received this fruit from Mr. Manning, who, we believe, had it from Germany; it is only fit for cooking.

Fruit very large, regularly formed, but very much flattened, pale yellow, with sometimes a little red in the sun. Flesh tolerably juicy. Good. September to January

MENONISTEN REINETTE.

Reinette des Menonites.

A German dessert Apple.

Fruit medium, roundish oblate, yellow, some russet, and a flush of red in the sun. Flesh fine, firm, juicy, aromatic, brisk subacid. November, February.

MENSFELD CALVILLE.

Calville d'Hiver de Mensfeld. Mensfelder Gulderling.
Mensfelder Winter Calville.

Originated in Mensfeld, in the Duchy of Warsaw. Tree a strong, vigorous grower, with long jointed branches.

Fruit large, roundish oblong, slightly ribbed, yellowish green, with distinct small brown dots. Calyx large. Stalk short. Flesh half firm, rather tender, sugary, vinous. Good for table or cooking. December to February. (Ver.)

MERCER.

Origin unknown. Specimens received from Western New York.

Fruit medium, roundish oblate, pale yellow, sprinkled with a few gray dots. Stalk rather short. Calyx closed. Flesh white, tender, juicy, crisp, pleasant subacid. Good. Core small. October.

MÈRE DE MÉNAGE.

Fruit very large, conical, yellow, overspread, shaded, and striped with red. Flesh firm, crisp, brisk, juicy, subacid. October, December. A very showy market Apple, and good for cooking.

MERRILL'S.

Merrill's Apple.

Origin, Smyrna, N. Y.

Fruit medium, roundish, yellow, with a bright red cheek. Flesh yellow, rather firm, rich, spicy, subacid. Good. December to March.

MERRITT'S SWEET.

Fruit medium, oblate, yellow, sometimes with a blush. Flesh compact, very sweet, good for culinary use and stock feeding. Good. Last of August. Productive.

MERWIN.

Fruit medium to large, roundish oblate, pale yellow, faintly striped, splashed, and shaded with red. Flesh yellowish, rather compact, moderately juicy, pleasant subacid. Good. December to March.

METHODIST.

From Connecticut. Tree vigorous and productive, medium size, oblong oval, greenish, marbled and striped with red. Flesh white, tender, mild subacid, not rich. Good. November

MÉTOIRÉE.

French Crab.

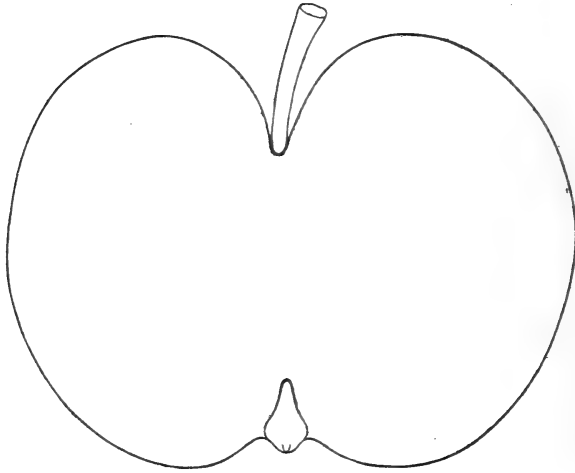
An old variety, of little value. Tree of moderate growth, holding its fruit quite late in autumn.

Fruit medium, oblong, yellow, shaded over with red. Flesh juicy. Good flavor for baking.

MEXICO.

Origin, Canterbury, Conn. Tree of moderate growth, productive, hardy. Young shoots dull grayish brown, downy.

Fruit medium, roundish oblate, crimson, striped, splashed, and shaded with very dark red, a little yellow in the shade, with a few large light dots. Stalk medium length. Cavity broad, shallow, russeted. Calyx closed in a narrow basin. Flesh whitish, stained with red, tender, rather juicy, pleasant subacid. Good to very good. Core small. September, October.



Mexico.

MICHAEL HENRY PIPPIN.

Rariton Sweet.

A New Jersey fruit, a native of Monmouth County, first described by Coxe. The tree forms a very upright head, with pretty strong shoots. Very productive.

Fruit of medium size, roundish oblong ovate, narrowing to the eye, when ripe, of a lively yellowish green. Stalk short and rather thick. Calyx set in a narrow basin. Flesh greenish white, very tender, juicy, mild tame sweet. Good. November to March.

MIDDLE.

Mittel.

Origin, Herkimer, N. Y. A moderate grower, not very productive.

Fruit medium or below, roundish oblong, inclining to conic, greenish yellow. Flesh white, tender, juicy, brisk, mild subacid. Good. December, February.

MIDDLEBOURG REINETTE.

Reinette de Middlebourg.

A new variety, originating in Holland. Tree upright, productive.

Fruit medium, roundish oblong, greenish yellow, with many grayish spots. Calyx small, half closed. Stalk short. Flesh yellowish white, fine, firm, rather dry, subacid. December to March. (Ver.)

MIFFLIN KING.

Origin, farm of Mr. Koffman, Mifflin Co., Pa.

Fruit small, oblate, whitish with a slight blush and a few gray dots. Stalk short, small. Calyx small, closed. Flesh white, crisp, tender, juicy, pleasant, lively subacid. Good. November and December.

MIGNONNE D'HIVER.

A new variety, probably of French origin.

Fruit medium or below, oblate depressed, slightly conic, greenish yellow, with shade of rich bright red in the sun, few light and gray dots. Stalk short. Calyx nearly closed. Flesh whitish, rather firm, moderately juicy, mild, pleasant, almost sweet. December, February.

MILAM.

Harrigan.	Winter Pearmain of some.	Blair.
Thomas.	Rusty Coat Milam?	

Origin uncertain, much grown in some sections at the West, very productive, and keeps well.

Fruit medium or below, roundish, greenish, shaded and striped with red. Flesh rather firm, pleasant, subacid, **not** rich. Good. December, March.

MILCH.

Braunschweiger Milch.	Milch Apfel.
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An extremely beautiful German Apple, recently introduced.

Fruit medium to large, roundish, waxy white, with crimson stripes and dots on the sunny side. Flesh white, tender, crisp, subacid. August.

MILLER.

Origin, Berks Co., Pa. Tree moderately vigorous, very productive. Young shoots grayish dull reddish brown, downy.

Fruit below medium, roundish oblate, whitish yellow, shaded, splashed, and striped with shades of red. Flesh white, sometimes stained with red next the skin, juicy, tender, mild subacid. Good. Core large. September, November.

MILLER.

Introduced by James O. Miller, Montgomery, Orange Co., N. Y. Tree vigorous and productive. Young wood smooth, light reddish brown.

Fruit rather large, roundish oblate, inclining to conic, yellow, shaded, striped, and splashed with rich red, large light or areole dots. Stalk short.

Cavity deep. Calyx large, partially closed. Basin deep, furrowed. Flesh yellowish, tender, crisp, pleasant subacid. Good to very good. October, November.

MINCHALL CRAB.

Minshul Crab.	Mincham's Crab.
Lancashire Crab.	Lancaster Crab.

An English Apple, valued mainly for cooking. Tree hardy, and abundant bearer.

Fruit above medium, roundish oblate, yellowish, with traces of russet, and shades of red in the sun. Flesh white, crisp, juicy, brisk acid. November, February. (Ron.)

MINIER'S DUMPLING.

An English cooking Apple. Tree a strong grower and good bearer. Fruit large, roundish, slightly ribbed, greenish, with dull red in the sun. Flesh firm, juicy, subacid. November, February. (Lind.)

MINISTER.

A New England variety, introduced to notice by the late R. Manning. It originated on the farm of Mr. Saunders, Rowley, Mass. Tree moderately vigorous, upright spreading, very productive. Young shoots dark reddish brown.

Fruit large, oblong, tapering to the eye, around which are a few furrows—and resembling the Yellow Belle-Fleur in outline. Skin striped and splashed near the stalk, with bright red on a greenish yellow ground. Stalk an inch long, slender, curved to one side, and pretty deeply inserted. Calyx small, closed, inserted in a very narrow plaited or furrowed basin. Flesh yellowish white, very tender, with a somewhat acid, but very agreeable flavor. Good to very good. Core large and open. October to February.

MINKLER.

Brandywine?

This is an old variety which was first exhibited before the Illinois Horticultural Society, and because it could not be identified, received, for the time being, the name of its exhibitor. At some future time it will probably be found identical with some variety long since named and described. Tree an irregular grower, good bearer and keeper.

Fruit medium, roundish oblate, slightly conic, pale greenish yellow, striped and splashed with two shades of red. Flesh yellowish, compact, moderately juicy, mild, pleasant subacid. Good. Core small. January to March.

MISHLER'S SWEET.

From Pennsylvania. Origin unknown. Tree vigorous and productive. Young shoots light reddish brown, somewhat downy.

Fruit large, roundish oblong ovate, greenish yellow, few gray dots.

Flesh white, tender, juicy, mild, pleasant sweet. Good. Core large. October.

MITCHELSON.

Mitchelson's Seedling.

An English Apple, described by Hogg as beautiful, and suitable for dessert or cooking.

Fruit above medium, roundish conical, deep yellow, slight patches and traces of russet, with a reddish cheek in the sun. Flesh yellowish, firm, crisp, brisk rich subacid. December, February.

MOLASSES.

Origin unknown. Tree upright, vigorous, and hardy.

Fruit medium, oblate. Skin thick, rough, greenish yellow, shaded with dull red, thickly covered with large crimson or lilac dots, and dull lilac bloom. Flesh yellow and exceedingly sweet. January to April.

There are, besides the above, three or four distinct apples under this name. One is claimed to have originated in Pennsylvania.

Fruit medium, roundish, pale yellow, tinge of crimson in the sun. Flesh yellow, compact, not very juicy, sweet. Tree a slow grower. October, November.

Elliott describes a Molasses, giving as synonyms, *Priest's Sweet*, *Butter*, *Blue Sweet*.

Fruit small, roundish, red. Flesh dry, sweet. October.

Another we have met is roundish conical, yellow, mostly shaded, splashed, and marbled with dark red. Flesh rich, sweet. Fine for cooking. None of this class are valued, except for the purpose of cooking and feeding stock.

MONARCH.

Monarch Sweet.

Origin unknown. Tree vigorous, a good and early bearer.

Fruit medium, roundish oblate, regular. Skin light red, splashed and striped with dark red, and numerous light dots. Flesh juicy, not very tender, but rich, pleasant subacid. Good. September, October.

MONKLAND PIPPIN.

Fruit small, roundish, greenish yellow. Flesh greenish white, soft, coarse. Poor. November.

MONK'S FAVORITE.

Origin, Indiana. Tree vigorous, upright spreading.

Fruit large, roundish, yellowish, striped and splashed with red. Flesh yellowish white, tender, juicy, subacid. Good. November, December.

MONKTON.

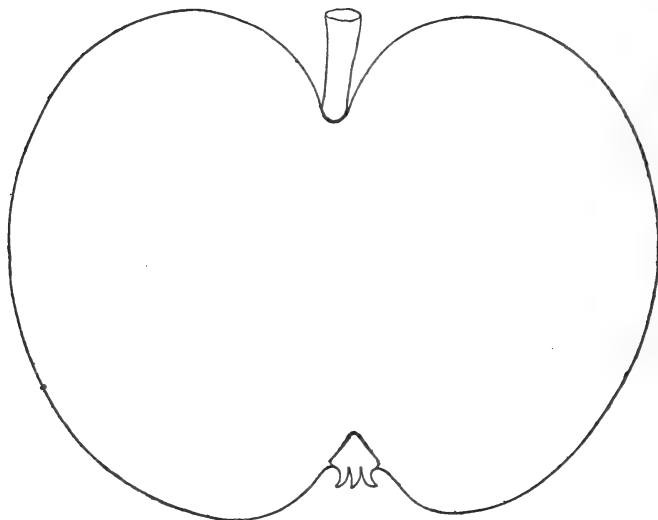
A cider Apple from Somersetshire, England.

Fruit below medium, oblate, slightly ribbed, clear red, with stripes of crimson. Flesh yellow, juicy, brisk acid. (Hogg.)

MONMOUTH PIPPIN.

Red Cheek Pippin.

A native of Monmouth Co., N. J., of moderate upright growth, and productive. Young shoots dark olive.



Monmouth Pippin.

Fruit large, oblate, a little inclining to conic, obscurely five-angled, slightly flattened at base and crown. Color pale yellow, with a beautiful warm cheek, and numerous russet dots. Stalk rather short, inserted in a large, slightly russeted cavity. Calyx partially closed. Basin deep, abrupt, and corrugated. Flesh juicy, fine, brisk, aromatic subacid. Very good to best. November to March.

MONSTROUS BELFLOWER.

An old variety, little grown. Tree a strong, irregular, vigorous grower, not profitable.

Fruit large, roundish oblong, ribbed, pale yellow bluish in the sun. Flesh whitish, brisk, juicy, subacid. Good. Core large. October, November.

MONTALIVET.

Of French origin. Tree vigorous, upright spreading.

Fruit medium or below, roundish, deep yellow, with small russet dots. Flesh yellow, firm, juicy, pleasant subacid. Good. January, February. Core small.

MOORE.

Moore's Seedling

A good culinary Apple.

Fruit large, roundish oblate conical, greenish yellow, with broken streaks of red. Flesh yellowish, tender, pleasantly sweet. October, December. (Hogg.)

MOORE'S EXTRA.

Origin, Ohio. Tree vigorous, not an early but a good bearer.

Fruit medium to large, roundish, slightly conical, flattened at base. Color yellow, shaded, splashed, and striped with light and dark red, large light dots. Stalk short, small. Cavity narrow, deep. Calyx open. Segments short, erect, separated. Basin large, deep, irregular. Flesh yellow, fine-grained, juicy, tender, mild subacid. Core small. Very good. December, March.

MOORE'S GREENING.

Raised by R. Moore, of Southington, Conn. Very productive.

Fruit medium, globular, inclining to oblong or conic, greenish yellow, sometimes with a slight blush. Flesh white, juicy, tender, with a brisk, vinous flavor. Good. December, March.

MOORE'S SWEET.

Sweet Pippin.

Polhemus.

Red Sweet Pippin.

Pound Sweet of some.

Tree moderately vigorous, very productive. Although not a first-class Apple, it is a very profitable and valuable one for all cooking or stock-feeding purposes.

Fruit medium, roundish oblate, dark dull red, with a slight bloom, small light-colored dots. Flesh yellowish, rich, pleasant sweet. Good. Core small. November to May.

MOORHEN PIPPIN.

An English dessert Apple, below medium size, roundish oblate, greenish, with splashes of red and russet in sun. Flesh firm, rich, pleasant. January to April. (Ron.)

MORELAND.

Origin, Montgomery Co., Pa. Tree very productive.

Fruit medium, yellow, with a red cheek, pleasant acid. Good for cooking. October.

MORGAN WHITE.

Origin unknown.

Fruit large, globular, somewhat flattened, irregularly ribbed, uneven, greenish, marked with gray stripes, rarely a faint blush. Dots white, large. Flesh greenish white, breaking, tender, juicy, acid to subacid. Good. September to January. (Warder.)

MORRISON'S RED.

Origin, supposed to be a native of Medfield, Mass., on the farm of Mr. Fisher. Tree vigorous and productive. Young shoots dull grayish brownish red, slightly downy.

Fruit medium, roundish conic, light yellow, shaded and obscurely striped with deep red. Stalk very short, stout. Cavity small. Calyx closed, in a very small basin. Flesh tender, crisp, with a very mild, pleasant subacid. Very good. November to March.

MORRISON SWEET.

Origin, Clinton Co., N. Y. Tree small, hardy, round regular head, good bearer.

Fruit medium, roundish oblate, greenish, with slight blush in sun. Flesh white, rather dry, sweet. Poor. October, November.

MORRIS'S COURT OF WICK.

A variety esteemed in England, too small for Americans.

Fruit small, oblate, greenish, with light red in the sun. Flesh firm, tender, juicy, rich, vinous. October, January.

MORRIS'S RUSSET.

Origin, Brentford, England.

Fruit below medium, roundish, brownish russet, becoming ruddy in the sun. Flesh firm, tender, juicy, brisk, aromatic, subacid. October, February. (Hogg.)

MORTON.

Morton's Seedling.

Origin, supposed Clermont Co., Ohio. Tree vigorous, upright spreading, productive.

Fruit large, roundish, slightly oblate, greenish yellow, with a reddish blush in the sun. Flesh whitish, tender, juicy, mild, sweet subacid. Good. November, December.

MOSES WOOD.

Origin, Winthrop, Maine. Tree vigorous and productive.

Fruit medium, roundish, yellow, striped with red. Cavity and basin shallow. Flesh white, tender, juicy, pleasant subacid. Good. September, October.

MOSS'S INCOMPARABLE.

Originated in England. Tree vigorous, productive.

Fruit large, roundish conical, golden yellow, washed with pale red, and splashed with bright red in the sun, many small dark brown specks. Stalk slender. Cavity large. Flesh yellowish white, tender, soft, aromatic subacid. January to February.

An apple of good promise. (An. Pom.)

MOTE'S SWEET.

Originated on the property of L. S. Mote, Miami Co., Ohio. A valuable, but as yet comparatively new Apple. Tree vigorous, upright spreading, productive. Young shoots light reddish brown, downy.

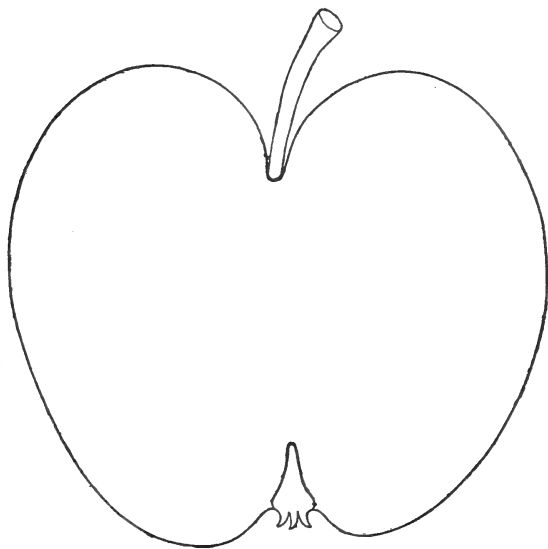
Fruit large. Form roundish, somewhat roundish oblate conic. Color pale whitish yellow, with a tinge of red in the sun, and moderately sprinkled with gray dots. Stalk medium, slender. Cavity large, deep. Calyx closed or partially open. Segments short, erect. Basin medium, uneven. Flesh yellowish, tender, moderately juicy, rich honeyed sweet. Very good. Core small. September, October.

MOTHER.

Queen Anne.

Gardener's Apple.

Origin, Bolton, Mass. Tree moderately vigorous, upright, and productive. Young shoots grayish brown, downy. One of the best of Apples for the dessert, rather too tender for shipment.



Mother.

Fruit medium. Form roundish, slightly conical. Color yellow, almost entirely overspread with light, clear, rich red, splashed and marbled with many deeper shades, many minute light dots. Stalk short, small. Cavity acute, often a little russeted. Calyx closed. Basin small, corrugated. Flesh yellow, tender, juicy, rich, aromatic subacid. Best. November, February.

MOTHER DAVIS.

From Pennsylvania.

Fruit medium, roundish conical, whitish yellow, shaded and obscurely splashed with light red, many small and large light dots. Stalk short. Calyx small, closed. Flesh fine, yellowish, tender, juicy, sprightly, pleasant subacid. Good to very good. Core rather small. November, December.

MOUNTAIN BELLE.

A native of Habersham Co., Ga.

Fruit medium to large, oblate conical, orange ground, shaded and striped with red. Stalk short. Cavity deep. Calyx medium. Flesh white, hard, juicy, tough, subacid. Good. November to May. (White.)

MOUNTAIN SWEET.

Mountaineer.

From Pennsylvania.

Fruit large, oblate, light yellow. Dots minute. Calyx small, closed. Stalk short, slender. Flesh white, breaking, very tender, fine-grained, juicy, sweet. Good to very good. December. (Warder.)

MOUSE APPLE.

Moose Apple.

Origin, Ulster Co., N.Y. Tree vigorous and productive.

Fruit, in weight, light; in size, large, roundish, slightly conical, pale greenish yellow, with a brownish blush on one side, and a few scattered, russety gray dots. Flesh very white and fine-grained, moderately juicy, delicate, faintly perfumed, mild subacid. Good. October, November.

MUNSON SWEET.

Orange Sweet.

Ray Apple.

Meachem Sweet.

Origin uncertain, probably Massachusetts. Tree vigorous, spreading, an annual and abundant bearer.

Fruit medium, oblate, pale yellow, sometimes with a blush. Stem short. Cavity large. Calyx closed. Basin small. Flesh yellowish, juicy, sweet. Good. September to February.

MURPHY.

Raised by Mr. D. Murphy, of Salem, Mass. Tree moderate grower, spreading, tolerably productive.

Fruit pretty large, roundish, pale red, streaked with darker red, and marked with blotches of the same color. Flesh white, tender, with an agreeable flavor. Good. November to February.

MUSCAT REINETTE.

Reinette Musquée.

A new German Apple, said to be superior.

Fruit medium, roundish conical, yellow, much striped with red. Flesh yellowish white, juicy, rich, aromatic, subacid. November to March. (Hogg.)

MUSTER.

Origin unknown.

Fruit oblate, yellow, mostly covered with mixed red and splashes of crimson. Flesh yellow, fine-grained, tender, juicy, subacid, aromatic. Best. Core small. August and September. (Warder.)

NAIGLE'S WINTER.

Origin, Missouri. Tree upright while young, becoming drooping when in fruit; very productive.

Fruit medium, roundish, flattened at ends. Color a bright yellow, covered with two shades of red, many large yellow gray dots, light blue bloom. Calyx closed. Stalk short. Flesh white, crisp, tender, juicy, mild subacid. Core small. Very good. December, February. (Hort.)

NANNY.

An English Apple, which Hogg describes as of excellent quality. Tree a moderate grower and good bearer.

Fruit medium, roundish, yellow, striped and splashed with shades of deep red, russet dots. Flesh yellow, rather soft, juicy, subacid. October.

NANTAHALEE.

Maiden's Bosom.

Originated in Macon Co., Ala. Tree a rapid grower, of rather a straggling, drooping habit. Young shoots dull grayish reddish brown.

Fruit medium, broad oblate conic, often contracted near the apex, ribbed, pale yellowish green, sprinkled with a few gray dots. Stalk medium. Cavity large, uneven. Calyx closed. Segments rather long, a little recurved. Basin small, corrugated. Flesh white, tender, juicy, sprightly acid. Good. Core large. July, August.

NECTAR.

Origin, near Raleigh, N. C.

Fruit medium, oblate, green. Calyx closed. Stalk short. Flesh yellowish, juicy, rich, saccharine. August. (Gar. Mon.)

NED.

Saylor. Libhart.

Originated at Marietta, Pa. Tree vigorous, rather straggling, with slender shoots, dark reddish brown, slightly grayish, very productive.

Fruit medium, roundish oblate, slightly conic, yellow, shaded, striped, and splashed with two shades of dark rich red, and sprinkled with large light conspicuous dots. Stalk short, slender. Calyx large. Flesh white, tender, juicy, mild, pleasant subacid. Core small. Good to very good. December to February.

NEEDLE.

Supposed an old English Apple, not yet identified.

Fruit below medium, roundish oblate, greenish yellow, with small brown dots. Stalk short. Calyx closed. Flesh white, juicy, mild, pleasant subacid. Core small. Good. December, January.

NEISLEY BELLFLOWER.

Neasley Bellflower.

From Salem, Columbiana Co., O. Tree rather upright, vigorous.

Fruit medium to large, roundish oblate, pale whitish yellow, shaded, splashed, and striped with light and dark red, few light and gray dots. Stalk short. Calyx open. Flesh yellowish, moderately juicy, mild subacid. Good. Core small and close. December to March.

NELSON.

Origin unknown.

Fruit medium to large. Form roundish oblate, regular. Color dull green, becoming yellow, sometimes bronzed with dull brown. Stalk rather long, slender. Cavity medium, acute, regular, green. Calyx medium, closed. Segments reflexed. Basin small, uneven. Flesh greenish yellow, firm, fine-grained, juicy, sweet. Core medium. Good. May to July. (Am. Jour. of Hort.)

NELSON'S CODLIN.

Backhouse's Lord Nelson.

A culinary English Apple.

Fruit large, roundish oblate, light yellow, deepening in the sun and with russet specks and traces. Flesh yellowish white, tender, brisk, sharp subacid. Good. October, November.

NEQUASSA.

Nequassa Sweet.

Origin, Franklin, Macon Co., N. C. Tree vigorous, upright.

Fruit large, oblate. Color yellow, striped with red. Stalk of moderate length, inserted in a large, open cavity. Basin smooth and open. Flesh white and very sweet. Good. November to January.

NEVERSINK.

Origin, Berks Co., Pa. Tree vigorous, upright spreading.

Fruit large, roundish, inclining to conic, beautiful waxen orange-yellow color, with a few russet dots, and a delicately striped and richly mottled carmine cheek. Stalk short. Cavity narrow, acuminate, shallow. Calyx large. Basin deep, rather wide, furrowed. Flesh yellowish, somewhat tough, moderately juicy, subacid, quince-like. Good. December to March.

NEWARK KING.

Hinckman.

Origin, New Jersey. The tree is spreading, and bears well.

Fruit medium, roundish conical, smooth, red, with a few yellow streaks and dots on a greenish ground. Calyx set in a narrow basin. Flesh tender, with a rather rich, pleasant flavor. Good. November to February.

NEWARK PIPPIN.

French Pippin. Yellow Pippin.

A handsome and excellent early winter variety, easily known by the crooked, irregular growth of the tree, and the drooping habit of the branches. Not profitable. Young shoots slender, dull brownish red, smooth.

Fruit rather large, roundish oblong, regularly formed, greenish yellow, becoming a fine yellow when fully ripe, with clusters of small black dots, and rarely a very faint blush. Calyx in a regular and rather deep basin. Stalk moderately long, and deeply inserted. Flesh yellow, tender, very rich, juicy, and high flavored. Very good. November to February.

NEWBURY.

Cat's Head.

Origin uncertain.

Fruit large, oblong conic, greenish, with a brownish cheek in the sun. Stalk short. Calyx small. Flesh greenish, coarse. Core large. Poor. December, February.

NEW LATE REINETTE.

Reinette Tardive Nouvelle.

Fruit medium, roundish oblate, yellow, striped, splashed, and veined with reddish brown and shaded with gray. Calyx half closed. Flesh yellowish, fine, tender, juicy, agreeable, aromatic, subacid. April to June. (Alb. Pom.)

NEW ROCK PIPPIN.

From England.

Fruit below medium, dull green, becoming brownish in the sun, slight tinge of red and considerable russet. Flesh yellow, firm, rich, sweet. Good. November to February.

NEW SMALL LEMON PIPPIN.

An old English Apple, described by Ronalds. Tree hardy and productive.

Fruit below medium, roundish oblong, clear yellow, with many small red dots. Flesh whitish, firm, juicy, pleasant subacid. Good. November, December.

NEWTOWN SPITZENBURGH.

Vandevere of New York.

Ox Eye.

Matchless.

Joe Berry.

Spiced Ox Eye.

Spitzenburgh.

Burlington.

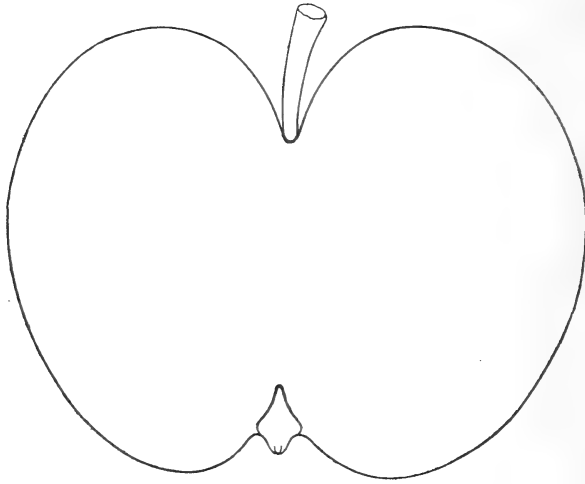
Kountz.

Barrett's Spitzenburgh.

Wine, erroneously.

This old and valuable Apple has been long known in New York as the Vandevere, but as it was first described by Coxe as Newtown Spit-

zenburgh, we continue that name. It had its origin in Newtown, Long Island. Tree moderate, vigorous, spreading, and productive in rich, light soil, of most excellent fruit, which is suited to more tastes than any other Apple of its season.



Newtown Spitzenburgh.

Fruit medium, oblate, slightly conic, fine yellow, washed with light red, striped and splashed with deeper red, and richly shaded with carmine on the sunny side, covered with a light bloom, and sprinkled with peculiar gray specks. Stalk short, inserted in a wide cavity. Calyx small, closed, set in a regular basin of moderate depth. Flesh yellow, crisp, tender, with a rich, sprightly, vinous flavor, scarcely subacid. Best. October to February.

NICHOLS SWEET.

Origin unknown.

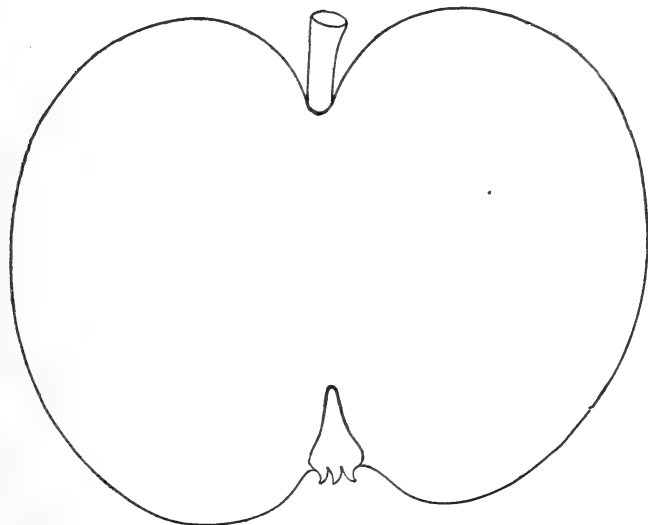
Fruit medium, roundish, slightly conic, yellow, shaded and faintly splashed with red, few light dots. Flesh whitish, compact, moderately juicy, sweet. Good cooking. Core small. December, January.

NICKAJACK.

Caroline.	Aberdeen.	Alleghany.
Berry.	Trenham	Chaltram Pippin.
Summerour.	Big Hill.	Gowden.
Accidental.	Carolina Spice.	Graham's Red Warrior.
Red Pippin.	Cheatan Pippin.	Walb.
Howard.	Chatham Pippin.	Winter Horse.
Hubbard.	Winter Rose.	Missouri Pippin.
Mobbs.	Red Hazel.	Missouri Red.
Cheataw.	Wander.	Leanham.
Edward Shantee.	Red Warrior, erroneously.	Winter Horse.
Pound.	Forsythe's Seedling.	Jackson Red.
Wall.	Ruckman's Red.	World's Wonder.

This Apple is very widely disseminated in sections of the South and

Southwest, it having as it were the habit of reproducing itself from seed, or at least so nearly identical as to be impossible to distinguish the seedling from the parent, hence one cause of so many synonyms. The first dissemination of it known was by a Colonel Summerour, of Lincoln County, N. C., under the name of Winter Rose; but as it was found on Nickajack Creek, it soon took that name, and is now best known thereby. The habit of the tree is upright spreading, forming a very large head. On branches two, three, or four years old, there are woody knobs or warts of various sizes, which, when cut from the branch, are found to contain kernels entirely detached from the regular grain of the wood. The great value of the variety consists in the hardihood and productiveness of the tree rather than the character of the fruit, which is not more than good in quality. Young shoots bright clear dark reddish.



Nickajack.

Fruit large. Form roundish to roundish oblate, slightly conic, sometimes oblique. Color yellowish, striped, shaded, and splashed with two shades of red, and with a grayish appearance, as if covered with a thin bloom, many large areole dots. Stalk short. Cavity large, medium depth. Calyx partially open. Basin medium, slightly corrugated. Flesh yellowish, compact, moderately tender and juicy, negative subacid. Good. Core small, closed. December to April.

NIEMAN'S RED REINETTE.

Nieman's Rothe Reinette.

Reinette Rouge de Nieman.

Originated at Hanover, Germany. Tree a strong, vigorous grower.

Fruit medium, roundish conical, yellow, mostly overspread and splashed with red. Stalk short. Calyx open. Flesh white, tender, juicy, vinous, subacid. November, February. (Verg.)

NIX GREEN.

Queen Apple, erroneously.

Origin, Habersham Co., Ga. Tree profuse bearer.

Fruit medium, oblate roundish, greenish yellow, with many light dots. Stalk short. Calyx small, closed. Flesh white, firm, tender, pleasant subacid. Good. November, February.

NOBLESSE DE GAND.

An English sauce Apple, described by Ronald as large, roundish, slightly conical, straw-colored. Flesh firm, heavy, brisk subacid. January, February.

NONPAREIL.

English Nonpareil.

Old Nonpareil.

Original Nonpareil.

Hunt's Nonpareil.

Loveden's Pippin.

Reinette Nonpareil.

Nonpareil d'Angleterre.

Duc d'Arseil.

Grune Reinette.

An old English variety. Tree free upright grower, productive.

Fruit medium, roundish conical, yellowish green, with patches of dull russet, and red in the sun. Flesh crisp, juicy, vinous, aromatic, mild acid. Good. December, March.

NONPAREIL RUSSET.

Of English origin. Tree vigorous, spreading, productive.

Fruit small, roundish oblate, conical, greenish yellow, covered with thin dull russet. Flesh white, crisp, juicy, sprightly subacid. Good. January to May.

NONSUCH.

Nonsuch.

An old English sort, valuable as a sauce Apple; productive.

Fruit of medium size, regular form, flat, greenish yellow, striped and spotted with dull brick red. Flesh white, soft, with a plentiful subacid juice. Good. September, November.

NORFOLK.

From Massachusetts.

Fruit small, flat, yellow, pleasant. August. (Cole.)

NORFOLK BEAUFIN.

Read's Baker.

Catshead Beaufin.

Norfolk Beefing.

A large English fruit, only fit for cooking purposes, dull red, on greenish ground. Flesh firm, subacid. Good. January to May.

NORFOLK PARADISE.

An English dessert Apple.

Fruit medium, oblong, greenish yellow, brownish red in sun, with

stripes. Flesh white, firm, juicy, rich subacid. October to February. (Lindley.)

NORFOLK STONE PIPPIN.

Stone Pippin.

White Stone Pippin.

White Pippin.

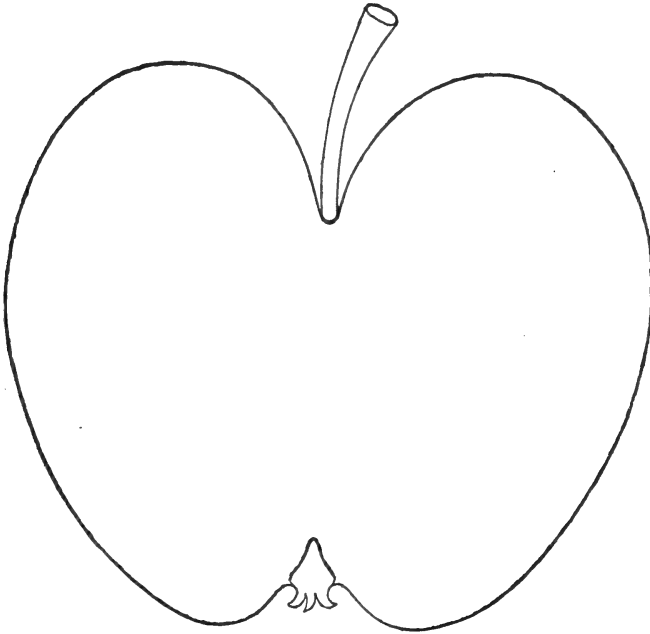
A valuable long-keeping cooking fruit. Tree a free grower and abundant bearer.

Fruit below medium, roundish, yellowish green, slight tinge of red in the sun. Flesh white, firm, brisk, rich, sweet. November to March.

NORFOLK STORING.

An English Apple, valuable for market or cooking.

Fruit large, roundish oblate, yellowish green, with yellow red cheek in the sun. Flesh white, tender, juicy, crisp, brisk subacid. November, January.



Northern Spy.

NORTHERN SPY.

This beautiful American fruit is one of the most delicious, fragrant, and sprightly of all late dessert apples. It ripens in January, keeps till June, and always commands the highest market price. The tree is of rapid, upright growth, and bears moderate crops. It originated on the

farm of Heman Chapin, of East Bloomfield, near Rochester, N. Y. The trees require high culture, and open heads to let in the sun, otherwise the fruit is wanting in flavor, and apt to be imperfect and knotty. Young shoots dark reddish brown. The tree blooms late, often escaping vernal frosts.

Fruit large, roundish oblate conical. Skin thin, smooth, in the shade greenish or pale yellow, in the sun covered with light and dark stripes of purplish red, marked with a few pale dots, and a thin white bloom. Stalk three-fourths of an inch long, rather slender, planted in a very wide, deep cavity, sometimes marked with russet. Calyx small, closed. Basin narrow, abrupt, furrowed. Flesh white, fine-grained, tender, slightly subacid, with a peculiarly fresh and delicious flavor. Core large and open. Very good to best. December to June.

NORTHERN SWEET.

Northern Golden Sweet.

Golden Sweet.

Origin, on the farm of the late Nathan Lockwood, of St. George, Chittenden Co., Vt. Tree healthy, spreading, and productive, but needs high culture for the perfect development of the whole crop. Young wood reddish, smooth.

Fruit medium, roundish oblate, yellow, sometimes with a blush. Stalk rather long, in a moderate cavity. Calyx small and closed, in a narrow, abrupt, corrugated basin. Flesh white, tender, juicy, sweet, rich, and excellent. Core medium. September, October. Not profitable.

NORTHFIELD BEAUTY.

Origin unknown. Tree a vigorous grower. Young shoots rich reddish brown, with few prominent dots.

Fruit large, roundish oblate. Sides unequal, whitish yellow, with stripes, shades, and splashes in the sun. Flesh white, crisp, brisk subacid. Core small. Good for cooking. August, September.

NOTTINGHAM PIPPIN.

Tree vigorous, productive.

Fruit medium, roundish oblate, yellow, with slight markings of russet. Flesh white, marrowy, sugary, vinous. November to February. (Hogg.)

NURSERY.

Origin unknown.

Fruit below medium, roundish, inclining to conic, greenish yellow, slight blush or brown in the sun, gray dots. Stalk short, slender. Calyx closed. Basin slightly corrugated. Flesh yellowish, compact, moderately juicy, mild subacid, almost sweet. Core small. Good. December to February.

OAKES.

From Danvers, Mass. Origin unknown. Tree a strong, vigorous grower, and fair bearer. Young shoots clear reddish, smooth.

Fruit medium, roundish oblate, greenish yellow, with a shade of red in the sun, few gray dots. Stalk short, slender. Calyx closed. Flesh yellow, juicy, tender, pleasant subacid. Core small. Good to very good. November, January.

There is an English culinary Apple of this name described by Lindley, which is medium, roundish, with ribs, pale green, with broken streaks of pale brown, and russety specks. Flesh soft, greenish white, slightly sweet. November, December.

OCONEE GREENING.

Origin, banks of the Oconee river, a little below Athens, Ga. Tree vigorous and abundant bearer.

Fruit large, roundish flattened, yellow, a little brownish in the sun, russet about the stem, with a few scattered russet dots. Calyx open, in a shallow, slightly furrowed basin. Stalk very short, in a rather regular, deep cavity. Flesh yellowish, fine-grained, crisp, abounding in a delightful aromatic, lively, subacid juice. Good to very good. October, November.

OFINE.

Of English origin. Tree vigorous, productive.

Fruit large, roundish oblate conical. Skin oily. Color lemon yellow, washed and splashed with red in the sun, many large reddish gray spots. Stalk large, short. Calyx open. Flesh white, firm, tender, sweet subacid, aromatic. November. (An Pom.)

OGDENSBURGH.

Originated with A. B. James, Ogdensburgh, N. Y.

Fruit medium, roundish oblate conic, whitish yellow, brownish red in sun, few light and brown dots. Flesh white, juicy, tender, very mild subacid. Very good. Core medium. New. November, December. (Elliott's Notes.)

OGLEBY.

From Spottsylvania Co., Va. Tree a rapid grower.

Fruit below medium, roundish oblate, yellow, sometimes a slight blush in sun, with gray and green dots. Flesh yellowish, compact, crisp, juicy subacid. Good. October, November.

OHIO NONPAREIL.

Myer's Nonpareil.

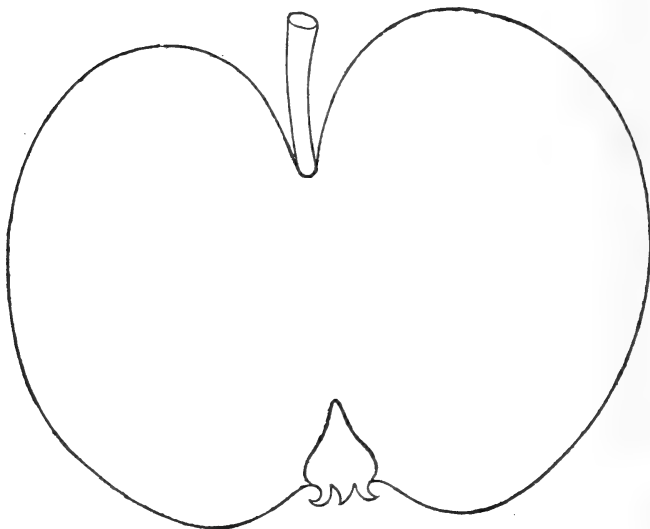
Western Beauty, erroneously.

Cattell Apple.

Rusty Core.

This is one of the most valuable of autumn Apples, whether for market or table use. Its origin is in doubt, the first known trees of it being in the orchard of — Bowman, Massillon, Ohio. The young trees are very vigorous, with stout, straight shoots, while the orchard trees are very wide, regular, open, spreading, requiring little or no thinning, and bearing the fruit evenly over the whole tree, and all fair sized, smooth fruit. Young shoots smooth, rich, dark reddish brown.

Fruit medium to large. Form roundish oblate. Color yellow, shaded, marbled, and splashed with two shades of rich red, thinly sprinkled with light and gray dots. Stalk medium, rather slender. Cavity large, deep, regular. Calyx rather large, partially open. Segments rather short. Basin medium. Flesh yellowish white, fine-grained, tender, juicy, rich, slightly aromatic subacid. Core small. Very good. October, November.



Ohio Nonpareil.

OHIO PIPPIN.

Ernst's Pippin.

Shannon.

Origin in doubt. Supposed Dayton, Ohio. It was first disseminated by the late A. H. Ernst, of Cincinnati. Tree healthy, vigorous, spreading, moderately productive. Young shoots strong, dull reddish brown, quite downy.

Fruit large, roundish oblate, yellow, with mottled red in the sun. Flesh yellowish, moderately juicy, pleasant, sharp subacid. Good. Core small. November, January.

OHIO RED STREAK.

Originated with James Mansfield, Jefferson Co., O. Growth vigorous, upright.

Fruit medium, oblate, yellow, shaded, splashed, and striped with red. Stalk short. Cavity large, russeted. Calyx large, closed. Basin shallow, uneven. Flesh rather compact, juicy, rich subacid. Good. January to April.

OHLINGER.

Origin, Pennsylvania, Berks County.

Fruit below medium, yellow, with a brownish cheek, with many areole specks. Flesh yellowish white, tender, subacid. Good. October.

OLD ENGLISH CODLIN.

English Codlin. Trenton Early?

The trees are very vigorous and fruitful. A large and fair cooking Apple, in use from July to November.

Fruit generally above medium size, oblong or conical, and a little irregular, clear lemon yellow, with a faint blush next the sun. Stalk stout and short. Flesh white, tender, and of a rather pleasant subacid. Much esteemed for cooking, ripens gradually upon the tree.

OLD FIELD.

Origin, Connecticut. A good grower, bears well, an old variety.

Fruit medium, oblate conic, yellow, with a slight blush. Flesh yellowish, tender, pleasant, mild subacid. Good. January to April.

OLD HOUSE.

Origin, Bucks Co., Pa. Tree vigorous, upright.

Fruit medium, oblate, inclining to ob-conic, yellow, with a blush. Flesh tender, fine texture, juicy, flavor agreeable, aromatic. Good. December.

OLD HUNDRED.

Origin unknown. Specimens received from J. W. Manning, Reading, Mass. Tree upright grower and good bearer.

Fruit medium, roundish oblate conic, yellowish, striped, splashed, and marbled with shades of red. Flesh whitish, crisp, tender, juicy, sprightly subacid. Good. November to February.

OLD ROYAL RUSSET.

Leather Coat Russet.

Fruit medium, roundish, gray russet on green. Flesh greenish white, sharp subacid. November, February. (Elliott.)

OLD TOWN CRAB.

Spice Apple of some

Fruit small, greenish yellow, with brown specks. Flesh crisp, juicy, sweet. December, March.

OLD TOWN PIPPIN.

Of unknown origin.

Fruit above medium, roundish oblate, light yellow, shaded and splashed with red, few brown dots. Flesh yellowish, firm, not very juicy, pleasant subacid. Good. Cooking. January to March.

OLINE.

Tree vigorous, productive.

Fruit very large, roundish, yellow, washed with red. Flesh tender, fine, subacid. Very good. November, December. (Soc. V. M.)

OLIVE.

Origin, Wake Co., N. C. Tree vigorous, upright grower.

Fruit medium, slightly conical, crimson, with gray dots. Calyx open. Stalk long, stout. Flesh crisp, juicy, subacid. October, November.

There is another Olive Apple, from Vermont, which is medium, oblate, inclining to conic, yellowish, shaded, splashed, and striped with shades of red, few areole dots. Stalk short. Calyx closed. Flesh white, tender, juicy, mild subacid. November to January. (Gar. Mon.)

OMAR PASHA.

An English cooking Apple.

Fruit above medium, roundish oblate, deep yellow, dotted with russet. Calyx open. Stalk short. Flesh white, firm, crisp, juicy, pleasant acid. December to March.

ORANGE.

There are several Apples under this name; but as it is almost impossible to decide which has prior right to the name, we enumerate and describe in the order they are known to us.

THE ORANGE of New Jersey origin is a vigorous grower, and moderately productive. Young shoots clear, reddish brown, buds reddish, prominent.

Fruit above medium, roundish oblate. Skin orange yellow, with a few gray dots, and sometimes patches of russet. Stalk short, in a large cavity. Calyx closed. Basin moderate. Flesh yellow, juicy, subacid, pleasant. Very good. September, October.

THE ORANGE of Reading, Pa., has fruit roundish, slightly oblate, faintly ribbed, of a warm yellow orange color. Flesh yellowish, sprightly. Good.

THE ORANGE of France, received from A. Leroy, Angers, is of medium size, roundish, fine yellow, shaded with crimson in the sun, moderately sprinkled with gray and light dots. Stalk short. Calyx small, closed. Flesh white, tender, juicy, mild, pleasant subacid. Good. October, November.

ORANGE PIPPIN.

Marigold Pippin.

Isle of Wight Orange.

An old Apple, originated in Normandy, and valued mainly as a cider fruit.

Fruit medium, roundish, rich orange yellow. Flesh firm, crisp, pleasant acid. October to January.

There is also an Orange Pippin grown in New Jersey differing from this, but we have been unable to obtain its history or description.

ORANGE SWEET.

There are several varieties under this name, but we have been unable to examine and compare them closely. The one we have most known came from Ohio, and has young shoots of a light reddish brown, smooth, the fruit large, roundish, greenish yellow, sometimes traces of russet, few gray and green dots. Calyx small, closed. Flesh whitish, tender, juicy, pleasant, sweet. Good. Valuable for baking. October, November.

Another we have from Massachusetts, is a good grower and bearer. Young shoots smooth, very dark reddish brown. Buds very small.

Fruit medium, oblate, greenish yellow. Calyx small. Flesh yellowish white, rather coarse, but rich, sweet. Good for cooking. August and September.

Another Orange Sweeting, grown in Maine, is described as a tree of upright habit, healthy, thrifty, and productive. Young shoots dark brownish red.

Fruit medium, roundish ovate, bright yellow, with a blush cheek in the sun, small greenish dots in shade, and crimson dots in the sun. Flesh yellowish, tender, sweet, and rich. September, October.

Warder, in his American Pomology, describes an *Orange Sweet* or *Russet* as large, round, greenish yellow, bronzy orange russet. Flesh green, rather tough, fine-grained, sweet. Good for baking. December.

ORD.

Ord's Apple.

Simpson's Pippin.

Simpson's Seedling.

An English Apple, grown from a seed of the Newtown Pippin.

Fruit medium, oblong conical, somewhat ribbed, dull green, washed and splashed with dull red, and many star-like russet specks. Flesh greenish white, tender, crisp, brisk subacid. December to April.

ORLEANS REINETTE.

Reinette d'Orleans.

Fruit large, roundish oblong, deep yellow, with stripes of bright red in the sun. Flesh yellowish, fine, juicy, brisk acid. December.

ORNDORF.

Origin, Muskingum Co., O. Tree a vigorous, spreading, upright grower, productive.

Fruit medium, roundish oblate, yellow, shaded, striped, and splashed with two shades of red. Stalk short. Calyx small, closed. Flesh whitish, tender, mild subacid. Good. Core small. October, November.

ORNE'S EARLY.

Origin unknown, supposed foreign. Tree vigorous, upright spreading.

Fruit medium, roundish. Color whitish, thickly sprinkled with gray and light dots. Stalk long and slender. Calyx small, closed. Flesh white, tender, fine-grained, moderately juicy, pleasant, sprightly subacid. Good. Core small. August, September.

ORTLEY.

Ortley Pippin.	White Bellflower.	Ohio Favorite.
Woolman's Long.	White Detroit.	Willow Leaf Pippin.
Greasy Pippin.	Hollow Cored Pippin.	White Pippin.
White Bellefleur.	Green Bellflower.	Detroit.
Van Dyne.	Jersey Greening.	Davis.
Melting Pippin.	Crane's Pippin.	Warren Pippin.
Yellow Pippin.	Inman.	Golden Pippin.
Woodward's Pippin.	Tom Woodward Pippin.	White Seek-no-Further.
Davis White Bellflower.	Marrow Pippin.	Tod's Golden Pippin.

Origin, orchard of Michael Ortley, South Jersey. It grows pretty strongly, with upright slender shoots, and bears abundantly.

Fruit medium to large, roundish oblong conic, greenish yellow, becoming fine yellow at maturity, sometimes with a sunny cheek. Stalk slender, of medium length, inserted in a deep, acute cavity, surrounded by russet. Calyx closed, set in an abrupt, somewhat corrugated basin. Flesh white, fine-grained, tender, juicy subacid, very pleasant. Good to very good. Core large. November to February.

OSCEOLA.

Origin, Putnam Co., Ind. Tree vigorous, upright spreading. Young shoots dark reddish brown, grayish.

Fruit medium, roundish oblate conic, sides unequal, pale yellow, shaded, splashed, and striped with red, large light dots. Stalk short. Cavity slightly russeted. Calyx closed. Basin deep, uneven. Flesh whitish, firm, juicy, pleasant, mild subacid. Good to very good. January to March.

OSKALOOSA.

Jack Apple.

Origin unknown. Tree a moderate grower, forming a handsome head, an early but not an abundant bearer.

Fruit medium, round, somewhat flattened, yellow. Flesh juicy, mild subacid. November. (Gard. Month.)

OSLIN.

White Oslin.

Arbroath Pippin.

An excellent Scotch Apple. Tree vigorous and productive.

Fruit below medium size. Form oblate. Skin rather tough, clear lemon yellow when quite ripe, and sprinkled with a few grayish green dots. Flesh yellowish, firm, crisp, juicy, spicy aromatic. Good. September.

OSNABRUCKER REINETTE.

Reinette d'Osnabruck.

Grau Osnabrucker Reinette.

A foreign variety, not apparently of much value.

Fruit small, roundish, rich yellow ground, somewhat russeted, with a red cheek in sun. Stalk long, slender. Calyx large. Flesh white, fine, juicy, perfumed. Very good. December, February. (Ver.)

OSTERLEY.

Osterley Pippin.

A seedling of the Ribston Pippin, from Middlesex, England, described by Ronalds as a free grower and good bearer.

Fruit below medium, roundish oblate, dull green, with thin russet and red in the sun. Flesh greenish yellow, firm, crisp, juicy, brisk, aromatic, sharp subacid. November to February.

OSTOGATE.

Supposed French origin. Tree vigorous and productive.

Fruit medium, roundish oblate, yellow, with many gray russet dots. Stalk slender. Cavity narrow, deep. Calyx open. Flesh whitish yellow, fine, aromatic, sweet subacid. November. (An. Pom.)

OVERMAN'S SWEET.

Origin, Illinois. Tree hardy, spreading, productive.

Fruit medium, roundish oblate conical, yellowish, shaded, mottled, and splashed with red, many light and gray dots. Stalk short. Calyx closed. Flesh whitish, not very tender, moderately juicy, mild, sweet. Core small. Good. November, March.

OVIATT.

Origin, Warren Co., O.

Fruit large, roundish oblate conic, greenish yellow, shaded with red in the sun, few brown dots. Stalk short. Calyx closed. Flesh whitish, a little coarse, tender, pleasant subacid. Good. September.

OX.

From Pennsylvania.

Fruit large roundish conical, whitish, slightly bronzed in the sun, few gray dots. Stalk long, slender. Calyx closed. Flesh white, crisp, tender, juicy, sprightly subacid. Good. Core small. November to January.

OXNEAD PEARMAIN.

Earl of Yarmouth's Pearmain.

From England. Tree hardy, with slender drooping branches, productive.

Fruit small, conical, greenish, with a thin russet, brownish in the sun. Flesh greenish white, firm, crisp, rich, acid. November, February.

OX SWEET.

From Massachusetts. Tree very vigorous, upright spreading.

Fruit above medium, roundish oblate, greenish, sometimes a little bronzed in the sun, many light and gray dots. Stalk short. Calyx closed. Flesh yellowish white, juicy, tender, sweet, and pleasant. Good. Core rather large. October, November.

PADLEY'S PIPPIN.

Compote. Padley's Royal George Pippin.

An old English Apple, of moderate growth, but quite productive. Young shoots grayish chestnut red.

Fruit medium, or small, roundish oblate, dull greenish yellow, yellow in the sun, with some russet. Flesh yellowish, juicy, rich, brisk acid. December, January.

PANDEN SWEET.

Origin unknown.

Fruit medium, oblate, yellow, with a tinge of red in the sun, some gray and red dots. Stalk short. Calyx small, closed. Flesh white, compact, crisp, sweet. Good. Cooking. November.

PARK SPICE.

Park Apple.

Origin, Westchester Co., N. Y. Tree thrifty, upright spreading, very productive. Young shoots pretty smooth, dark reddish brown.

Fruit medium, roundish oblique, whitish yellow, shaded with red, obscurely splashed and striped, moderately sprinkled with light and brown dots. Stalk short, slender. Calyx small, closed. Flesh yellowish, rather firm, moderately juicy, mild subacid, slightly aromatic. Core medium. Very good. December to March.

PARMENTIER REINETTE.

Of French origin. Tree vigorous, upright spreading.

Fruit large, roundish, golden yellow, dotted with reddish gray, and striped with bright red in the sun. Flesh yellowish white, firm, sharp subacid, aromatic. March to May. (S. V. M.)

PARROT REINETTE.

Supposed of German origin.

Fruit above medium, roundish oblate, pale yellow, lightly splashed, shaded, and marbled with light red, few brown dots. Stalk medium, rather slender. Cavity broad, deep. Calyx closed, or partially open. Flesh whitish, tender, juicy, brisk subacid. Good. Core large and open. New, promises valuable for market or cooking.

PARRY'S PEARMAIN.

An English dessert Apple.

Fruit small, roundish oblong, truncated, greenish yellow, shaded and striped with red in the sun. Flesh firm, juicy, rich, and sweet. Good to very good. January to March.

PASSE POMME D'AUTOMNE.

Passe Pomme Rouge d'Automne.
Pomme d'Outre Passe.
Herbststrich Apfel.

Generale.
Passe Pomme Cotellee.
Rother Herbststrichapfel.

Of German origin. Tree vigorous, productive.

Fruit medium, roundish, slightly oblate, ribbed, yellowish, shaded

and striped with rich red in the sun. Flesh very white, tinged with red, tender, juicy, vinous, excellent for cooking. September. (Hogg.)

PASSE POMME ROUGE.

Rother August Apfel.

Rothe Sommerpasspomm.

Tree slender grower, hardy, productive.

Fruit small, roundish oblate, yellow, entirely overspread and shaded with red. Flesh white, tinged with red next the skin, crisp, juicy, soon decays. Poor. August.

PATCH'S RUSSET.

Of English origin.

Fruit below medium, roundish oblate, greenish yellow, with thin gray russet. Calyx small. Stalk long. Flesh yellowish white, crisp, brisk aromatic. Good. November, December. (Lind.)

PATERSON'S SWEET.

Origin unknown. Considerably grown in Western New York, and esteemed valuable for its season. Tree upright, thrifty, productive.

Fruit medium, roundish oblate, yellow, mostly covered and indistinctly splashed and striped with dark rich red, many conspicuous light dots. Flesh white, tender, juicy, pleasant, sweet. Good to very good. September, October.

PAWPAW.

Western Baldwin.

Rubicon.

Ball Apple.

Origin, Pawpaw, Mich. Tree hardy, a good and regular bearer. Young shoots dull grayish reddish brown.

A new Apple, esteemed in its place of origin for its productiveness and beauty of appearance.

Fruit medium, roundish oblong, slightly oblique, yellow, shaded and mostly overspread with bright rich red, faintly splashed and mottled, moderately sprinkled with areole dots. Stalk medium. Cavity deep, narrow. Calyx partially open. Segments a little recurved. Flesh yellowish, juicy, firm, rich, brisk subacid. Very good. December to June.

PAWSAN.

An English cider Apple.

Fruit medium, roundish, dull green, with network of russet. Flesh firm, juicy, acid. October.

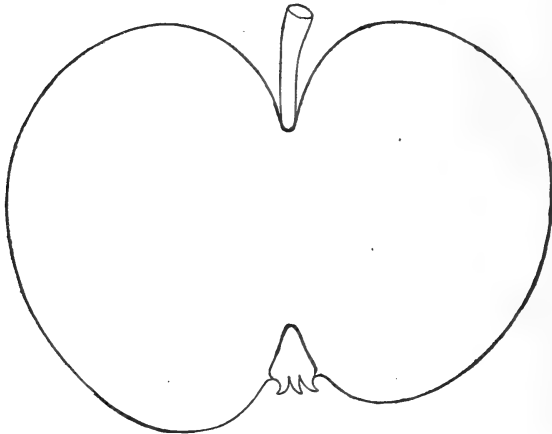
PEACH.

Origin unknown. Tree moderate grower.

Fruit below medium, oblate, inclining to conic, pale yellow, with blush of red in the sun, and thickly sprinkled with gray dots. Stalk short. Calyx closed. Flesh white, crisp, tender, juicy, lively brisk subacid. Good to very good. Core small. December to April. A good keeper.

PEACH-POND SWEET.

This is a most excellent autumn variety, from a small village of this name in Dutchess Co., N. Y. It appears well worthy of a more general dissemination. Tree vigorous, spreading. Young shoots dull grayish brown.



Peach-Pond Sweet.

Fruit of medium size, rather flat, striped light red. Stalk long and slender. Flesh tender or very mellow, moderately juicy, very rich, sweet, and agreeable. Very good. September to November.

PEAR.

Pear-Apple.

From Pennsylvania.

Fruit medium or below, roundish oblong, pale yellow, with a blush in the sun, few gray dots. Flesh white, crisp, juicy, pleasant subacid. Good. Core small. December, February.

PEARSALL'S SWEET.

Supposed to have originated in Queens Co., Long Island. Tree upright spreading, quite productive.

Fruit rather large, roundish, sometimes oblique, yellow, shaded, splashed, and mottled with light red. Stalk short. Calyx closed. Flesh yellowish, a little coarse, moderately juicy, sweet. Good. Core large and open. November, January. A good keeper, and valuable for baking.

PEARSON'S EARLY.

Fruit medium or above, roundish, pale yellow. Flesh yellowish white, sharp subacid. August, September. (Elliott.)

PEARSON'S PLATE.

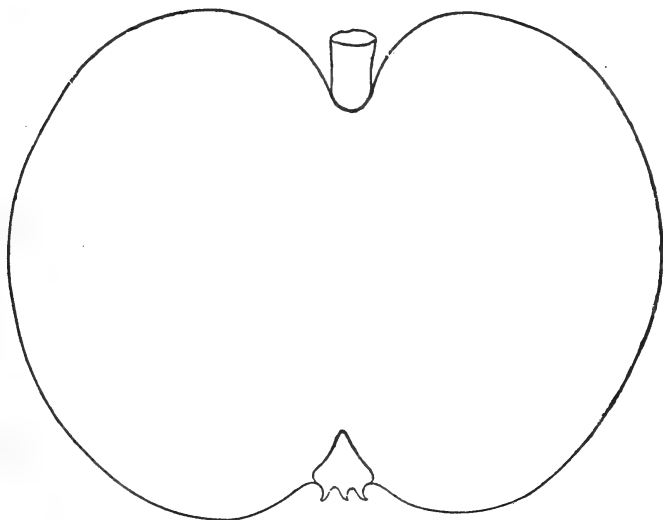
A variety from England, which has a very high reputation.

Fruit small, about two and a half inches in diameter, regularly formed, flat, greenish yellow, becoming yellow, with a little red in the sun. Flesh white, crisp, tender, sprightly subacid. Good. February, March. Core small.

PECK'S PLEASANT.

Waltz Apple.

A first-rate fruit in all respects, belonging to the Newtown Pippin class. It has long been cultivated in Rhode Island, where, we think, it originated, and in the northern part of Connecticut, and deserves extensive dissemination. It considerably resembles the Yellow Newtown Pippin, with more tender flesh, and is scarcely inferior to it in flavor.



Peck's Pleasant.

The tree is a moderate, upright spreading grower, but bears regularly and well, and the fruit commands a high price in the market. The apples on the lower branches of old trees are flat, while those on the upper branches are nearly conical. Young shoots reddish brown, slightly downy.

Fruit above medium size, roundish, a little ribbed, and slightly flattened, with an indistinct furrow on one side. Skin smooth, and when first gathered, green, with a little dark red; but when ripe a beautiful clear yellow, with bright blush on the sunny side and near the stalk, marked with scattered gray dots. The stalk is peculiarly fleshy and flattened, short, and sunk in a wide, rather wavy cavity. Calyx woolly, sunk in a narrow, abruptly, and pretty deeply sunk basin. Flesh yellowish, fine-grained, juicy, crisp and tender, with a delicious, high aromatic sprightly subacid. Very good or best. November to March.

PELHAM SWEET.

Green Sweet.

From Massachusetts. Tree a fair grower and good bearer.

Fruit below medium, roundish oblate conic, greenish, sometimes shaded with red in sun, splashes and patches of russet. Stalk short. Calyx closed. Flesh yellowish, moderately tender, sweet. Good. Core small. December to March.

PENNINGTON'S SEEDLING.

An English fruit of medium size, nearly flat, a little angular, mostly covered with rough yellow russet, with a little pale brown in the sun. Flesh yellowish, firm, crisp, with a brisk acid juice. Hardly good. November to March.

PENNOCK.

Pomme Roye.
Large Romanite.
Prolific Beauty.
Roman Knight.

Big Romanite.
Neisley's Winter Penick.
Pelican
Red Ox.

Red Pennock
Pennock's Red Winter.
Gay's Romanite.

Origin, Pennsylvania. Tree a strong, vigorous, upright spreading grower, and very productive.

Fruit quite large, oblique, generally flat, but occasionally roundish oblong, fine deep red, with faint, indistinct streaks of yellow. Flesh yellow, tender, and juicy, with a pleasant half sweet flavor. Good. November to March.

PENNSYLVANIA SWEET.

Pennsylvania Sweeting.

Origin unknown.

Fruit large, oblong, greenish yellow. Flesh tender, fine-grained, very sweet. Good. Early winter. (Warder.)

PENNSYLVANIA WINE SAP.

Origin unknown.

Fruit large, conical oblate, truncated, yellow, blushed, very little splashed. Flesh yellowish white, tender, juicy, subacid. Good. December, January. (Warder.)

PEOPLE'S CHOICE.

Melt-in-the-Mouth of some.

A Pennsylvania fruit. Tree moderately vigorous, upright. Young shoots grayish reddish brown.

Fruit medium, oblate, inclining to conic. Color red, sometimes obscurely striped, thickly sprinkled with large whitish dots of peculiar appearance. Flesh yellowish, firm, juicy, brisk, rich subacid. Good. December to March.

PEPIN RUSSE.

Fruit medium, roundish oblate, yellow, with reddish gray dots, bright red in the sun. Flesh fine, half firm, yellowish white, subacid. December, January. (S. V. M.)

PERRY RUSSET.

Golden Russet.

The origin of this is in obscurity. It was, many years since, carried from Perry, Wyoming Co., N. Y., to the West, under the name of Golden Russet, but as it was entirely distinct from the true Golden Russet, it soon became known as the Perry Russet, which name we continue. It is of "good" quality for table or kitchen, but does not keep late, and sometimes drops its fruit from the tree early. Tree a moderate, upright spreading grower, hardy, an early and abundant bearer. Young shoots light brownish red.

Fruit medium, roundish conical, sometimes a little oblique, pale yellow, netted with russet on the sunny side, and sometimes brownish. Stalk short, cavity narrow, sometimes with a lip. Calyx closed. Basin abrupt. Flesh yellowish, rather firm, juicy, brisk subacid. Good. November, December.

PETIT JEAN.

From Jersey, England. Tree an abundant bearer.

Fruit small, roundish oval oblate, pale yellow, shaded and striped with red. Flesh white, tender. Good. November, February.

PETWORTH NONPAREIL.

Green Nonpareil.

Ronalds describes this English fruit as larger than the old Nonpareil, of the same shape, green. Flesh crisp, juicy. February, March.

PHILLIPPI.

Origin, supposed Berks Co., Pa. Tree vigorous. Young shoots reddish brown, slightly downy.

Fruit medium, oblate conical, greenish yellow, with numerous blotches and gray dots, and a blush on the exposed side. Stalk short and slender, inserted in a wide, deep cavity, Calyx small, closed, set in a narrow superficial basin. Flesh tender, fine texture, juicy. Good to very good. October to January.

PHILLIPS' SWEET.

Originated on the farm of George Phillips, Coshocton Co., Ohio. Tree thrifty, upright, very productive. Young wood smooth, light, clear reddish brown.

Fruit medium or above, roundish oblate, inclining to conic, whitish yellow, shaded with light red, and striped and splashed with dark,

large light dots. Stalk long, slender. Cavity deep. Calyx closed. Segments short. Basin abrupt, deep. Flesh white, crisp, tender, juicy, rich, pleasant, sweet. Good to very good. Core small. December, March.

PHENIX.

From Illinois. Origin unknown.

Fruit medium, roundish, slightly oblate, light yellow, faintly shaded, splashed, and striped with rich red, few brown and light dots. Flesh yellowish, coarse, moderately juicy, subacid. Good. December, March.

PICKARD'S RESERVE.

Origin, Parke Co., Ind. Tree hardy and productive.

Fruit rather large, oblate, sides unequal, yellow, shaded with red in the sun, few gray dots. Stalk short. Cavity large. Calyx closed. Basin large, deep, corrugated. Flesh yellowish, crisp, rather tender, juicy, slightly aromatic subacid. Good to very good. Core small. December, January.

PICKMAN.

Pickman Pippin.

Origin, Massachusetts. Tree vigorous. Young shoots dull brown, downy. Buds knobby at base.

Fruit medium, roundish oblate, yellow, with scattered shades of russet, and small russet dots. Stalk short. Cavity medium. Calyx closed. Flesh yellowish white, crisp, pleasant subacid. Good to very good. January, April.

PIFER.

Pfeifer.

Origin, Bucks Co., Pa. Tree rapid grower, upright spreading.

Fruit below medium, roundish, sparsely streaked with red on a yellowish green ground, fawn-colored next the sun. Flesh white, tender, subacid. Good. January to July.

PIGEON.

Jerusalem.	Cœur de Pigeon.	Pigeon Rouge.
Gros Cœur de Pigeon.	Passe Pomme.	Duif Apfel.
Rother Taubenapfel.	Arabian Apple.	

This old Apple is described by Ronalds as a free but not robust grower.

Fruit medium, oblong conical, straw color, flushed with red in the sun. Flesh white, delicate, crisp, pleasant subacid. December to February.

PIGEONETTE.

Pigeonet Blanc.	Pigeonette Blanc d'Été.
Pigeonette Gros de Rouen.	Museau de Levre.
American Peach.	Taubenfarbige Apfel.

This is described by Hogg as of only second quality, and here probably of little value.

Fruit below medium, oblate roundish, yellow, striped and rayed with red. Flesh white, delicate, agreeable acid. August, September.

PIGEONETTE DE ROUEN.

This is described in the Annals of Pomology, by M. Bivort, as tree very productive.

Fruit large, oblong conical, truncated, pale yellow, spotted with gray, washed and blotched with bright red. Flesh white, tender, subacid. Good. December to March.

PIKETON RUSSET.

Origin, near Picketon, Ohio.

Fruit large, conical, reddish green, and russety. February to April. (O. P. S. Rep.)

PILES RUSSET.

Pyles Russet.

An old English Apple. Tree vigorous, productive.

Fruit medium, roundish oblate, dull green, covered with russet, becoming dull brown or orange in the sun. Flesh greenish, breaking, brisk, slightly aromatic subacid. November to April. (Lindley.)

PINE APPLE RUSSET.

Hardingham's Russet.

Tree of moderate growth, fruit not fair or very valuable.

Fruit medium, conic, angular. Skin whitish yellow, faintly striped. Stalk rather long and slender. Cavity uneven, and slightly russeted. Calyx closed. Basin shallow, corrugated. Flesh whitish, juicy, tender, subacid, slightly aromatic. Very good. Last of September and October.

PINE CREEK SWEET.

Hamilton.

Origin, Pine Creek, Clinton Co., Pa. Tree very vigorous, upright spreading.

Fruit large, roundish conical, pale whitish yellow, sprinkled with a few brown dots. Stalk short. Cavity deep, large, uneven. Calyx small, closed. Basin abrupt, deep, slightly corrugated. Flesh white, crisp, tender, juicy, rich honeyed sweet. Very good. Core small. October.

PINE STRAWBERRY.

Tree healthy, vigorous, upright.

Fruit medium to large, conical, pale yellow, blushed and splashed, light carmine. Dots large, yellow. Calyx open. Stalk short. Flesh yellow, tough, juicy, sweet. Good. Winter. (Am. Hort. An.)

PINK SWEETING.

Originated with William Keller, Cumberland Co., Pa. Tree vigorous, spreading, producing enormous crops.

Fruit small, greenish, nearly covered with bright red, perfect in form, rich, pleasant, sweet. Good. September, October.

PINNER.

Carrell's Seedling.

Pinner Seedling.

Origin, Middlesex, England.

Fruit medium, roundish, ribbed slightly, yellowish brown russet, becoming reddish brown in the sun. Flesh yellowish, crisp, tender, brisk subacid. December, February.

PIONEER.

From Pennsylvania.

Fruit medium, roundish oblate conic, yellow, shaded with light red, and splashed and striped with dark red, many small light and gray dots. Stalk rather short. Calyx closed. Flesh whitish yellow, tender, juicy, pleasant subacid, slightly aromatic. Good. Core small. October, November.

PITMASTON GOLDEN PIPPIN.

Fruit small, round, rough, pale yellowish brown russet. Flesh deep yellow, crisp, tender, juicy, sweet. December. (Hogg.)

PITMASTON NONPAREIL.

St. John's Nonpareil.

Pitmaston.

Russet Nonpareil.

Origin, near Worcester, England.

Fruit medium, roundish oblate, dull green, with russet and faint red in the sun. Flesh greenish yellow, firm, rich, aromatic subacid. November, December. (Lind.)

PITMASTON PINE-APPLE.

Fruit small, conical, yellowish brown russet. Flesh yellowish, firm, crisp, sugary. December, January. (Hogg.)

PITTSBURGH PIPPIN.

Flat Pippin.
Father Apple.
Greasy Back.

Swiss Pippin.
William Tell.
Pippin.

Swiss Apple.
Schwitzer Apple.
Wythe.

Origin, supposed to be Pittsburgh, Pa. An irregular grower, somewhat drooping in habit, and generally a good bearer. Young shoots dull reddish brown, downy.

Fruit large, oblate, obscurely ribbed, pale yellow, rarely with a blush, sparsely sprinkled with brown dots. Stalk short and small, in a large cavity, sometimes a little russeted. Calyx nearly closed. Basin broad and corrugated. Flesh whitish, juicy, tender, sprightly subacid. Good to very good. November to April.

PLATT'S SWEET.

Origin, Addison Co., Vt. Tree a strong grower, and productive.

Fruit medium, roundish conical, sides unequal, greenish yellow, shaded and striped with dull red. Flesh yellowish, juicy, peculiar, sweet. Good. Core small. January to March.

PLEASANT VALLEY PIPPIN.

Of unknown origin. Received from New Jersey. Tree moderately vigorous, upright spreading.

Fruit medium, roundish, inclining to conic, greenish yellow, with brown or gray dots. Calyx small, closed. Flesh yellowish, tender, juicy, mild, pleasant subacid. Good to very good. October, November.

PLUM.

Origin unknown. Tree upright, moderately vigorous.

Fruit medium, roundish oblate, greenish yellow, with a tinge of red in the sun. Flesh white, fine, tender, juicy, mild, pleasant subacid. Very good. Core small. August.

POLISH.

Red Polish.

Originated in the neighborhood of Boston, Mass. Tree very productive, moderately vigorous, upright spreading.

Fruit medium, roundish conical, yellow, shaded, splashed, and striped with dark rich red, light gray dots. Stalk rather short, slender. Calyx closed. Flesh whitish, sometimes stained next the skin, juicy, pleasant subacid. Good to very good. October, November.

POLLY BRIGHT.

Origin supposed to be Virginia. Tree vigorous, upright spreading.

Fruit elongated conic. Skin light yellow, shaded with carmine, obscurely striped. Stalk of medium length, in an acute cavity, russeted. Calyx in a small furrowed basin. Flesh tender, juicy, with a pleasant subacid flavor. Good. September, October.

POMEROY.

Taunton.

There are two Pomeroy Apples from England—one from Somersetshire and one from Lancashire; neither of them proves of much value here. The first is medium, roundish conical, greenish yellow, with stripes of red and russet in the sun. Flesh yellow, firm, juicy, sugary. October, December.

The second is medium, roundish oblate, ribbed at apex, pale yellow, shaded cheek of red in the sun, russet dots. Flesh whitish, tender, brisk subacid. September, October.

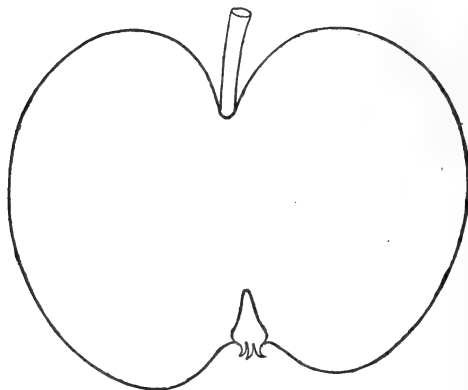
There is another Pomeroy from Massachusetts, which is of medium size, roundish oblate, yellow, shaded, splashed, and marbled in sun with light and dark red. Stalk short. Calyx closed. Flesh white, tender, moderately juicy, pleasant subacid. Good or very good. October, November.

POMME GRISE.

Pomme de Cuir.
Gray Apple.

Grise.
Leather Apple of Turic.

A small gray Apple, from Canada, probably of Swiss or French origin, and undoubtedly one of the finest dessert Apples for a northern climate. It is not a strong grower, but is a good early bearer, and has an excellent flavor. Young wood reddish brown.



Pomme Grise.

Fruit below medium size, oblate roundish. Skin greenish gray or cinnamon russet, with a little red towards the sun. Calyx small, set in a round basin. Flesh tender, rich, and high-flavored. Very good to best. December to February.

There is an Apple under name of Pomme Gris d'Or which is claimed as of more upright growth. The fruit more oblong and quite distinct. We have been unable to so decide.

POMME WATER.

Pomme Water Sweet.

An old Apple, described in Kenrick, Hogg, and others. It has travelled considerably, but is not generally known, nor very highly appreciated. Tree vigorous, spreading, moderately productive.

Fruit medium to large, roundish, slightly conical, greenish yellow, shaded and splashed with red or crimson in the sun. Stalk rather short. Calyx closed. Flesh yellowish white, breaking, juicy, pleasant, sweet. Good to very good. Fine for baking. October, December.

PONTO PIPPIN.

An English variety, described by Hogg as of medium size, roundish, slightly conical, greenish yellow, red in the sun, with spots of dark russet. Flesh greenish white, crisp, tender, brisk subacid. November to February.

POORHOUSE.

A new variety, received from A. L. Woodson, of Kentucky, by him obtained from Tennessee.

Fruit large, roundish oblate, pale yellowish green, with russet dots. Stalk short. Flesh yellowish, compact, moderately juicy, mild subacid. Very good. December. Promises a good keeper.

POPE.

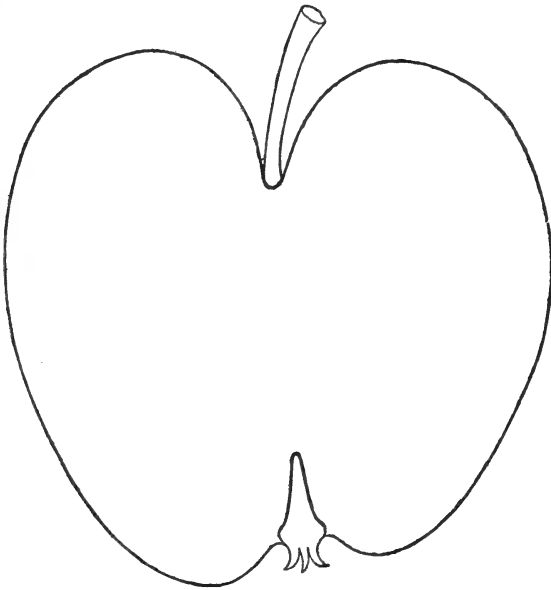
Pope's Apple.

This is described by Hogg as originating in Kent, England, and there highly esteemed. The tree an early and abundant bearer.

Fruit large, roundish oblate conical, clear yellow, with patches of green, dark dots and streaks of red in the sun. Flesh yellowish, sugary, juicy, rich, and excellent. November to March.

PORTER.

A first-rate New England fruit, raised by the Rev. S. Porter, of Sherburne, Mass., and wherever grown a decided favorite. The tree is hardy, a moderately vigorous grower, forming a low, round, spreading head, and



Porter.

producing abundantly, if in good soil, a fruit uniformly fair and even in size and form. It is a valuable market fruit, and continues a long time in use.

Fruit rather large, regular, oblong, narrowing to the eye. Color clear glossy bright yellow, and, when exposed, with a dull blush next the sun. Calyx closed. Segments irregular, set in a narrow and deep basin. Stalk rather slender, not three-fourths of an inch long. Flesh fine-grained, and abounding with juice, sprightly, agreeable aromatic subacid. Very good to best. Ripens in September, and deserves general cultivation.

PORTER SPITZENBURGH.

Origin uncertain. A free grower and very productive. Tree moderately vigorous, upright spreading.

Fruit large, globular, slightly inclining to conic, red, shaded with deep crimson. Stalk very short, inserted in a large cavity, surrounded by thin russet. Calyx small, closed, set in an open basin. Flesh white, much stained, very compact, crisp, juicy, pleasant, brisk subacid. Good to very good. November to March.

PORTUGAL GRAY •REINETTE.

Reinette Grise de Portugal. Graue Portugiesische Reinette.

Origin unknown. A very singular-colored fruit, small to medium, green, covered with a peculiar dirty reddish brown. Calyx large, closed. Flesh greenish white, tender, pleasant subacid. January, February.

POSEY'S RED.

Posey's Red Winter Sweet.

Origin unknown.

Fruit medium or below, roundish oblate, yellowish, shaded, splashed, and striped with red. Flesh whitish, tender, mild subacid, almost sweet. Good. Core small. November to April.

POSTELEY.

Posteley's Seedling.

Origin unknown. Tree a fair grower and good bearer.

Fruit medium, roundish, inclining to conic, greenish yellow, shaded in the sun with dull red, many gray dots. Stalk short. Cavity large. Calyx closed. Flesh yellowish, compact, juicy, brisk subacid. Good to very good. Core medium. December to March.

POTTER'S LARGE.

Potter's Large Apple. Potter's Large Seedling.

A very large English sauce Apple, roundish oblong conical, obscurely ribbed, greenish yellow, with a blush red in the sun, and many red and gray dots. Flesh white, subacid. October to December.

POTTINGER.

Big Red.

Origin and distinctiveness uncertain. Tree vigorous, large. Branches upright. Shoots purple, warty. Buds long, pointed.

Fruit large, regular, oblate, dull red, shaded and striped, covering the yellow ground. Dots small, prominent, with some roughness. Flesh yellow, breaking, granular, juicy, subacid, aromatic. Only good for kitchen and drying. December, January. (Warder.)

POUND CAKE.

Royal Pearmain?

A Southern Apple, not much known.

Fruit large, roundish oblate, inclining to conic, golden yellow, mottled and shaded with red, netted and patched with russet. Flesh yellowish, rather crisp, tender, a little granular, vinous, pleasant. Good to very good. November, December.

POUND ROYAL.

Winter Pound Royal.

Probably of French origin. Fruit apt to be unfair, unless with high culture. Tree spreading, with long slender branches. Young shoots light brown.

Fruit large, roundish oblong conical, with a slightly uneven surface, pale yellowish white, rarely with a faint blush, and marked when ripe with a few large ruddy or dark specks. Flesh very tender, breaking, fine-grained, with a mild, agreeable, aromatic subacid. Good. In use from December to April.

POUND'S JULY.

Origin, Kentucky. Tree vigorous, upright spreading. Young shoots light reddish brown.

Fruit large, roundish conic, sides unequal, greenish white, with a dull blush, and thinly sprinkled with brown dots. Stalk very short. Cavity deep, russeted. Calyx closed. Basin small, narrow. Flesh white, fine-grained, tender, not very juicy, rich, pleasant, sweet. Good to very good. July, August.

POUND SWEET.

There are several sorts under this popular name, as applied to any large sweet apple. One is large, roundish conical, greenish yellow, with slight red in sun. Flesh yellowish, tender, moderately juicy, sweet. September, October. Another is large, roundish, red. Flesh whitish, moderately juicy, aromatic, sweet.

POVESHON.

An old New Jersey Apple, valued mainly for making early cider.

Fruit small, oblate, deep red. Flesh yellow, dry, sweet. Good. September, October.

POWELL'S RUSSET.

A little English Apple, described by Ronalds as roundish oblate, light brown russet. Flesh white, firm, brisk subacid. December, January.

POWERS.

Miller's Apple.

Origin, Perrysburgh, Ohio.

Fruit large, roundish oblate, waxy yellow ground, shaded with red, and splashed with carmine. Stalk short. Cavity deep, acute. Calyx closed. Basin abrupt, somewhat corrugated. Flesh white, fine-grained, juicy, mild, aromatic subacid. Very good. October, November. (O. P. S. Trans.)

There is another Powers, or Powers Seedling, which originated on the farm of C. W. Powers, Amenia, Dutchess Co., N. Y.

Fruit medium, roundish, inclining to conic, whitish, shaded, splashed, and striped with red, light dots. Flesh white, a little stained next the skin, crisp, juicy subacid. Good. November.

POWNALE SPITZENBURGH.

Origin, Vermont. An old variety, not much esteemed. Tree a rapid grower, but late coming into bearing.

Fruit above medium, roundish oblate, sometimes inclining to conic, yellow, marbled and striped with red. Flesh yellowish, not very tender, pleasant subacid. Good. December to March.

PRAIRIE CALVILLE.

Calville des Prairies. Renetten. Wilden Apfel.

Fruit medium, roundish oblate, light yellow, overspread and blotched with red. Flesh white, tender, juicy, subacid. November, December. (An. Pom.)

PRATT'S SWEET.

Origin, on the farm of Daniel Pratt, Richland, Oswego Co., N. Y. Tree vigorous, with an open spreading head, an annual bearer, and productive. Young shoots dark reddish brown.

Fruit large, roundish conical, with broad yet slight ribs. Color rich pale yellow ground, marbled, striped, and shaded over two-thirds the surface, with two shades of clear bright pinkish red, and dotted with inconspicuous light dots. Stalk rather short, slender. Cavity deep, broad, and open. Calyx closed. Basin abrupt, moderately deep, round, and slightly corrugated. Flesh yellowish white, crisp, breaking, tender, rather fine-grained and juicy, mild, pleasant, rich, sweet. Very good. Core medium. December to March.

PRESIDENT.

Origin, farm of Capt. John White, Salem, N. H. Tree vigorous, productive.

Fruit large, roundish oblate, pale yellow, with a tinge of red in the sun, few gray dots. Flesh yellow, firm, juicy, subacid. Good. September, October.

The original tree of the President is said to have been in bearing at the inauguration of Washington as President, and to be yet in a healthy condition.

PRESIDENT DE FAY'S DUMONCEAU.

Origin, Belgium. Tree vigorous and productive. A new variety, of good promise.

Fruit very large, oblate, broadly ribbed, rich yellow, splashed and marbled with bright red in the sun. Stalk slender. Calyx small, closed. Flesh yellowish white, tender, sugary, acid. November, February. (An. Pom.)

PRESS.

Origin, Bucks Co., Pa. Tree upright, vigorous.

Fruit rather large, oblate. Skin whitish yellow, striped and splashed with red. Flesh juicy, tender, pleasant, mild subacid. Good. March.

PRESS EWING.

Originated in Christian Co., Ky., and introduced to notice by J. S. Downer. Tree hardy, vigorous, irregular, spreading. Young shoots dark brown, productive.

Fruit medium, oblate, yellow, shaded and obscurely splashed with crimson, and thickly covered with dots, having a dark centre. Stalk medium, inserted in a broad, deep cavity. Calyx closed, set in an uneven, deep, abrupt basin. Flesh yellowish, firm, juicy, crisp, tender, mild, agreeable subacid. Good to very good. February till April.

PRIESTLY.

Priestley's American.

Origin, Pennsylvania. Tree vigorous, upright, and productive.

Fruit large, roundish oblong, smooth, dull red, with small streaks of yellowish green. Flesh white, moderately juicy, with a spicy, agreeable flavor. Hardly good. December to March.

PRIEST'S SWEET.

Blue Sweet.

Molasses Sweet.

Origin, Leominster, Mass. Tree vigorous and very productive.

Fruit medium, globular inclining to conic, yellow, chiefly covered with dull red stripes and numerous red dots. Stalk short, set in a rather deep cavity. Calyx closed. Basin small. Flesh white, fine, tender, and pleasant, not very juicy, a late keeper. Good. January to May.

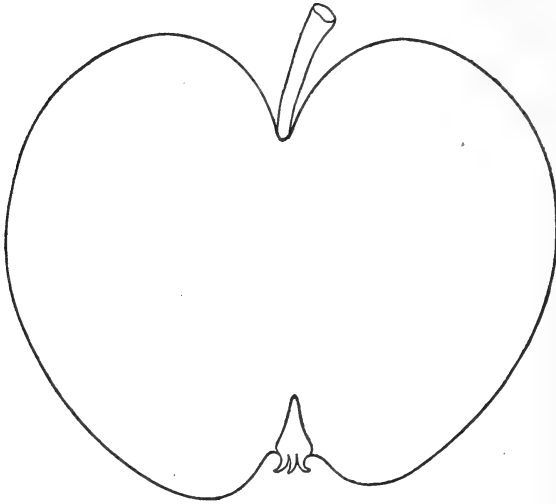
PRIMATE.

Rough and Ready.
Sour Harvest.
July Apple.
Scott.

Early Tart Harvest.
Zour Bough.
Powers.
North American Best.

The true origin of this delicious amateur's Apple is unknown. It appears to have been long known and grown in various sections of our States under different names. The tree is hardy, a strong and stocky

grower, and forms a beautiful head, very productive. Young shoots short-jointed, reddish brown, quite downy. Buds rather prominent.



Primate.

Fruit medium, roundish oblate conic, greenish white, with a crimson blush on the exposed side. Stalk of medium length, inserted in a rather large, deep, irregular cavity. Calyx closed in an abrupt, open, somewhat corrugated basin. Flesh white, very tender, sprightly, refreshing, mild subacid. Very good or best. An excellent dessert Apple, ripening the last of August, and continuing in use till October.

PRINCELY.

Origin, Bucks Co., Pa. Tree a good grower and good bearer.

Fruit medium, oblate, sometimes inclining to conic, yellow, shaded, marbled, and indistinctly splashed with red, small light dots. Stalk short. Calyx open. Flesh yellowish, tender, juicy, pleasant, mild almost sweet subacid. Core small. Good to very good. October, January.

PRINCE OF ORANGE.

Tree vigorous, very productive.

Fruit medium to large, roundish oblong, ribbed, pale yellow, with blotches of red. Flesh yellowish white, tender, soft, subacid. Good. October, November. (An. Pom.)

PRINCESSE NOBLE.

Grosser Edler Prinzessinapfel.

An excellent Dutch Apple. Tree a good grower, an early and good bearer.

Fruit medium, roundish, somewhat conical, yellowish, with many broken stripes of red. Flesh yellowish white, firm, juicy, pleasant, vinous. November. (Hogg.)

PRINCESSE NOBLE DES CHARTREUX.

Origin unknown.

Fruit medium to large, bright green, with many indistinct spots, greenish brown around the stalk. Stalk short. Calyx small. Flesh yellowish white, firm, sugary, agreeable acid. January, February. (Verg.)

PRINZ.

Of German origin. New. Tree vigorous, upright, a good grower, and productive. Young shoots reddish brown, downy.

Fruit large, roundish conical, obscurely ribbed, yellow, shaded with pale red in the sun, few brown dots. Stalk short. Calyx closed. Flesh yellowish, juicy, tender, breaking, mild, pleasant subacid. Good to very good. October, November.

PROGRESS.

“Esquire Miller’s Best Sort.”

A native of Middlefield, Conn. Tree a moderate grower, and forms a handsome head, bears early, and very productive. The original tree stands on the land of Enoch Coe, formerly of Isaac Miller Esq., and for some time was called “Esquire Miller’s best Sort.”

Fruit medium, roundish oblate. Stalk short, inserted in a round cavity, surrounded by russet. Calyx large, partially closed, set in an open basin. Skin smooth, yellow, with a sunny cheek, sometimes with a few scattered gray dots. Flesh solid, tender, crisp, juicy, refreshing, subacid. Good to very good. Core small. Ripe, October to April.

PROLIFEROUS REINETTE.

An English Apple, described by Hogg as :

Fruit medium, roundish, obscurely ribbed, dull yellow with broken stripes of crimson, small russet specks. Flesh yellowish white, juicy, rich brisk flavor. October, December.

PROLIFIC BEAUTY.

Origin unknown.

Fruit large, roundish oblate, yellowish, with dull stripes of red. Flesh whitish yellow, tender, acid. Poor. September, December.

PROLIFIC SWEET.

From Connecticut. Tree a good grower, very productive, fine for cooking.

Fruit roundish conic. Skin greenish. Flesh whitish, tender, with a pleasant, sweet, spicy flavor. November to February.

PROP.

From Pennsylvania.

Fruit medium, oblate oblique, pale yellow, with a few large splashes and stripes of light red, few large brown dots. Stalk short. Calyx large, open. Flesh whitish, tender, juicy, mild, pleasant subacid. Good. Core small. December.

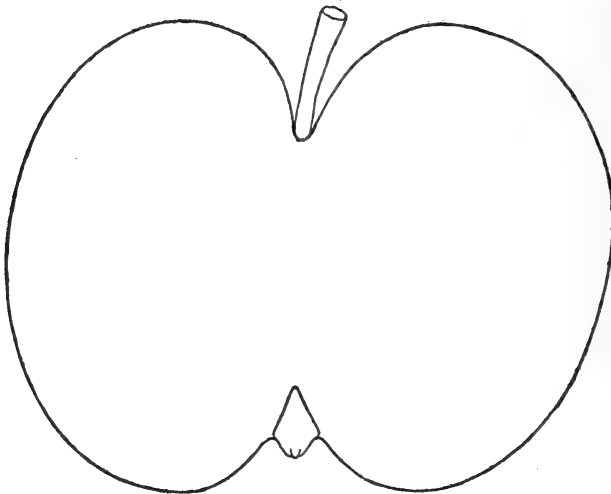
PRYOR'S RED.

Pitzer Hill.

Big Hill.

Prior's Red.

Origin unknown. Tree upright, spreading, not very vigorous, nor an early bearer, requires a deep, rich soil, and a warm season or a southern climate for the full development of its excellence. Young wood and buds clear reddish brown, many large conspicuous gray dots.



Pryor's Red.

Fruit medium, somewhat globular oblate, obliquely depressed. Color greenish yellow, shaded with red, striped with dark crimson, and thickly sprinkled with greenish gray dots, and some seasons much covered with russet. Stalk short and thick, inserted in a small acute cavity, surrounded by traces of russet, which sometimes considerably overspread the fruit. Calyx firmly closed, set in a small basin. Flesh yellowish, tender, juicy, very rich, pleasant subacid. Very good. January to March.

There is an apple under name of Pryor's Blue, which may be distinct from the above, and may prove identical.

PUCKER END.

From Long Island. Tree thrifty and productive. Fruit large, roundish, inclining to conic, pale yellow, often shaded with crimson in

the sun, few dark gray dots. Stalk short, stout. Calyx closed. Flesh yellowish, crisp, juicy, subacid. Good. Core large. October.

PUMPKIN RUSSET.

Sweet Russet.

Pumpkin Sweet.
York Russet.

Flint Russet.

Origin unknown. Trees large and spreading.

Fruit large, round. Flesh pale yellowish green, slightly covered with russet. Stalk long, set in a wide, shallow cavity. Eye narrow, slightly sunk. Flesh exceedingly rich and sweet. Good. September to January.

PUMPKIN SWEET.

Vermont Pumpkin Sweet.

Lyman's Pumpkin Sweet.

Pound Sweet.

A very large sweet Apple, which we received from Mr. S. Lyman, of Manchester, Conn. It is, perhaps, inferior to the Jersey Sweet or the Summer Sweet Paradise for the table, but is a very valuable apple for baking, and deserves a place on this account in every orchard. Tree upright, spreading. Young wood brown.

Fruit very large, roundish, more or less furrowed or ribbed, especially near the stalk. Color pale green, with obscure whitish streaks near the stalk, and numerous white dots near the eye, sometimes becoming a little yellow next the sun. Flesh white, very sweet, but not very juicy. Good. September to December.

There is also in Connecticut and Massachusetts another *Pumpkin Sweet*, the tree of which is a strong, upright grower, and very productive. Young wood reddish brown, slightly downy.

Fruit large, roundish oblate, rich yellow, frequently with considerable russet. Flesh yellowish white, breaking, rich, sugary, sweet, ripening in September and October. Very valuable for baking or stock feeding.

There are also several other Apples under the name of Pumpkin Sweet, but we consider the two above described as the best we have known.

PUSHMATAHA.

Sloan's Seedling.

Originated near Tuscaloosa, Ala. Tree stout, upright, moderately spreading head, early and abundant bearer. Young shoots grayish, downy at end.

Fruit medium or below, roundish oblate, inclining to conic, pale yellow, shaded, splashed, and striped with rich red, few brown dots. Stalk medium, slender. Calyx closed. Flesh yellowish white, juicy, mild, pleasant subacid. Good. Core small. November to January.

PUTNAM HARVEY.

Origin unknown.

Fruit medium to large, roundish oblate, greenish, with patches of russet. Flesh white, crisp, tender, juicy, subacid. August, September. (Elliott.)

PUTNAM KEEPER.

From Kentucky. Tree vigorous, upright spreading.

Fruit large, oblate, yellowish, shaded and splashed with red. Stalk rather long. Calyx closed. Flesh yellowish, crisp, juicy, pleasant subacid. Good. Core small. December to March.

PUTNAM SWEET.

Originated near Marietta, Ohio.

Fruit large, flat, regular, surface smooth, mixed, splashed, and striped deep red. Dots numerous, large. Calyx small, closed. Stalk short. Flesh tender, sweet, very good. Kitchen, stock. August, September. (Warder.)

PUTNEYITE.

Fruit medium, roundish, light yellow, coarse, dry, acid. December, January. (Elliott.)

QUAKER.

An old Apple. Origin unknown. Tree vigorous, spreading, an early and great bearer, regarded by some as a valuable market sort.

Fruit medium, roundish, inclining to conic, yellow, splashed and striped with rich red, light dots. Stalk medium, slender. Cavity large. Calyx closed. Flesh whitish, crisp, juicy, pleasant, slightly aromatic subacid. Good. November, February.

QUAKER PIPPIN.

Fruit medium, greenish yellow. Very acid. Poor. October. (Elliott.)

QUEEN CHARLOTTE.

An old German Apple, described by Ronalds as :

Fruit small, conical, greenish, with a facing of brown in sun. Flesh brisk, pleasant. March, April.

QUEEN OF SAUCE.

A culinary Apple, described by Hogg as :

Fruit large, oblate, greenish yellow, striped and flushed with red, patches and specks of russet. Calyx open. Flesh yellowish, firm, crisp, juicy, sugary, brisk, pleasant. Good. November, January.

QUEEN OF THE PIPPINS.

Reine des Reinettes.

Origin unknown. Foreign.

Fruit medium, roundish conical, truncated, fine yellow, shaded, splashed, and marbled with red, few gray dots. Stalk slender. Calyx open. Basin large. Flesh yellowish white, firm, crisp, slightly aromatic. Good to very good. November, December.

QUEEN OF THE VALLEY.

Origin unknown. Received from Connecticut. Tree vigorous, upright spreading. Young shoots brownish, slightly grayish.

Fruit rather large, roundish conical, yellow, mostly shaded, striped, and splashed with rich red, many whitish dots. Stalk short. Calyx closed. Flesh whitish, juicy, tender, pleasant subacid. Good to very good. November, December.

QUINCE.

Seneca Spice ?

Pear Apple.

Origin uncertain ; first described by Coxe. In appearance this Apple is much like a large yellow Newtown Pippin ; grown at the West it is larger than in New England, of a rich high flavor, and by some esteemed very highly. Tree hardy, vigorous, upright spreading, and productive. Young shoots dull reddish brown. Buds small, reddish, pointed.

Fruit medium to large, roundish oblate, yellow, rarely with a blush, somewhat broadly ribbed. Stalk short. Cavity broad, open, deep. Calyx closed. Basin large, rather deep, furrowed or uneven. Flesh yellowish white, crisp, tender, a little coarse, with a brisk, pleasant subacid quince aroma. Core rather large. Very good. October, December.

There is another *Quince*, or *Coles Quince*, which is claimed to have originated in Cornish, Maine. The fruit of the two is very similar, and we have at times questioned its identity. The young wood is, however, different in shade of color, being clear rich reddish brown, with buds short, abrupt, prominent.

RABINE.

This English Apple is described by Hogg as valuable for culinary or dessert purposes.

Fruit above medium, roundish oblate, ribbed, greenish yellow, mottled, splashed, and striped with red in the sun. Flesh yellowish, tender, crisp, sugary, brisk, pleasant acid. October, December.

RAGAN.

Ragan's Red.

Originated with Reuben Ragan, Putnam Co., Ind. Tree hardy, vigorous, and fruitful. Young wood dull reddish brown, grayish.

Fruit medium to large, roundish conic. Color marbled and striped with red on a green ground. Stalk medium length, inserted in a very deep, narrow cavity. Calyx small, closed, set in a deep, abrupt basin. Flesh yellowish white, juicy, pleasant, rather rich, spicy, subacid. Good to very good. October to November.

RAMBO.

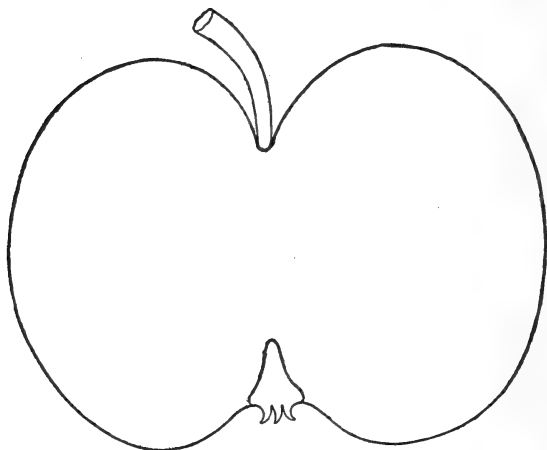
Fall Romanite.
Gray Romanite.
Striped Rambo.
Delaware.

Romanite.
Seek-no-Further.
Bread-and-Cheese Apple.
Rambouillet.

Trumpington ?
Large Rambo ?
Terry's Redstreak.

The Rambo is one of the most popular autumn or early winter

fruits. It is a highly valuable Apple for the table or kitchen, and the tree thrives well on light sandy soil, being a native of the banks of the Delaware. The tree is of a vigorous, rather spreading habit, quite productive.



Rambo.

Fruit of medium size, flat, smooth, yellowish white in the shade, streaked and marbled with pale yellow and red in the sun, and speckled with large rough dots. Stalk long, rather slender, curved to one side, and deeply planted in a smooth funnel-like cavity. Calyx closed, set in a broad basin, which is slightly plaited around it. Flesh greenish white, very tender, rich, mild subacid. Very good. October to December.

There is claimed to be a distinct or sub-variety of this, called *Red Rambo*, the fruit of which is more red, otherwise there is no perceptible difference.

RAMBOUR GROS.

An old Apple, described by Ronalds as :

Fruit large, roundish oblong conical, slight projecting ribs, yellow, marbled and faintly striped with rich warm red. Flesh white, crisp, juicy, sharp subacid. Good. December, January.

RAMBOUR PAFELEU.

Rambourg Papeleu.

Of Russian origin. Tree vigorous, productive.

Fruit large, roundish oblate conical, deep rich yellow, spotted, striped, and splashed with shades of rich red, small light russet dots. Stalk medium. Calyx closed. Flesh yellowish white, rather coarse, breaking, sharp subacid. Good. November, January. An Apple of good promise for market.

RAMBOUR ROSE.

Rambour Rouge. La Mère des Pommes. Kool-appel.

Tree moderately vigorous, with large strong branches. Very productive.

Fruit large, roundish conical, truncated, rich yellow, mostly overspread, splashed, and shaded with rich red, traces of fawn russet. Stalk large, short. Flesh greenish white, half crisp, sugary acid, agreeable. Good for cooking. October, November. (An. Pom.)

RAM'S HORNS.

A large dark red Apple, imperfectly described by Cole. Poor. Out of use.

RANDEL'S BEST.

Randel Best.

Origin unknown.

Fruit medium, roundish, slightly flattened, greenish yellow, mostly striped and overspread with dark red. Stalk short. Calyx small. Flesh white, tender, sweet. November, February. (Elliott.)

RASCHE.

Originated with W. Rasche, near Hermann, Mo. A new variety, of good promise. Tree a strong grower, productive, and hardy. Young wood dark brown red, with prominent buds.

Fruit medium, roundish oblate, obscure ribs. Color greenish yellow, with small irregularly scattered gray dots, a shade of deeper green suffused, faint traces of russet at the stem end. Stalk short. Calyx closed. Flesh yellowish, crisp, juicy, mild subacid. Very good. December to March.

RATTLE-BOX.

Hollow Core.

Origin unknown.

Fruit below medium, roundish, greenish yellow, thinly striped and splashed with red. Flesh white, tender, juicy, mild subacid. Good. Core large. August.

RAVELSTON PIPPIN.

Revelstone Pippin.

An Apple from Scotland.

Fruit medium, roundish oblate, irregularly ribbed, greenish yellow, with stripes of red, and many russet dots. Stalk short. Calyx closed. Flesh yellow, firm, sweet, pleasant. Good. August.

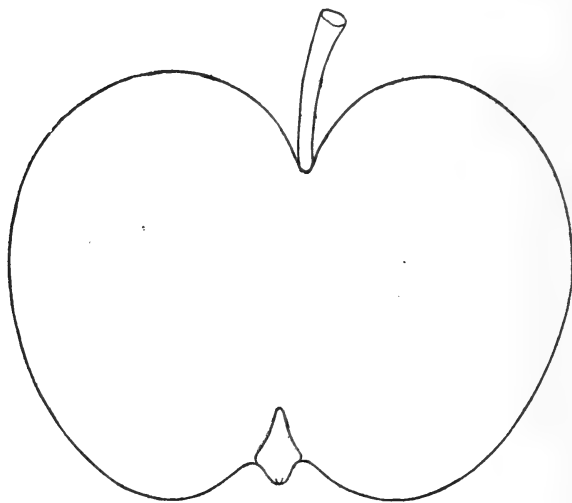
RAWLE'S JANET.

Missouri Janet ?	Rock Remain.	Jennett.
Red Neverfail ?	Rock Rimmon.	Neverfail.
Rawle's Jannet.	Yellow Janett.	Indiana Jannetting.
Raule's Jannetting.	Winter Jannetting.	Raul's Gennetting.
Rawle's Genet.	Jeniton.	

Originated in Amherst Co., Va., on the farm of Caleb Rawle. Tree

hardy, vigorous, spreading; it puts forth its leaves and blossoms much later than other varieties in the spring, and consequently avoids injury by late frost; it is, therefore, particularly valuable for the South and Southwest, where it is much cultivated. Young wood clear reddish brown.

Fruit rather large, oblate conic, yellowish, shaded with red and striped with crimson. Stalk short and thick, inserted in a broad open



Rawley's Janet.

cavity. Calyx partially open, set in a rather shallow basin. Flesh whitish yellow, tender, juicy, pleasant subacid. Good to very good. February to June. So far has not succeeded well at the North.

RAWLING'S RED STREAK.

Rawling's Fine Red Streak.

Red Streaked Rawling.

An old English sauce Apple, described in Ronalds.

Fruit large, roundish, yellow, striped with red. Flesh yellowish, tender, juicy, sweet. Good for cooking. December to March.

REBECCA.

Daddy.

An old variety, originating with a family by name of Stidham, in Delaware. Tree upright spreading. Young shoots dull grayish brown. Terminal bud large, blunt. Productive.

Fruit medium, oblate, whitish yellow, sometimes with a crimson cheek. Stalk short, inserted in a deep, narrow cavity. Calyx closed. Basin broad and deep. Flesh tender, juicy, pleasant subacid. Good to very good. August, September.

RED AND GREEN SWEET.

Red Pound Sweet.	Bedford Sweet.
Wheelock Sweet.	Large Early Red.
Prince's Large Red and Green Sweet.	

Origin unknown. Tree a good grower, upright spreading, a moderate annual bearer.

Fruit very large, oblong conic, ribbed, greenish white, with stripes of red. Flesh white, tender, sweet; a good fruit for baking and stock feeding. Middle of August to middle of September.

RED APPLE.

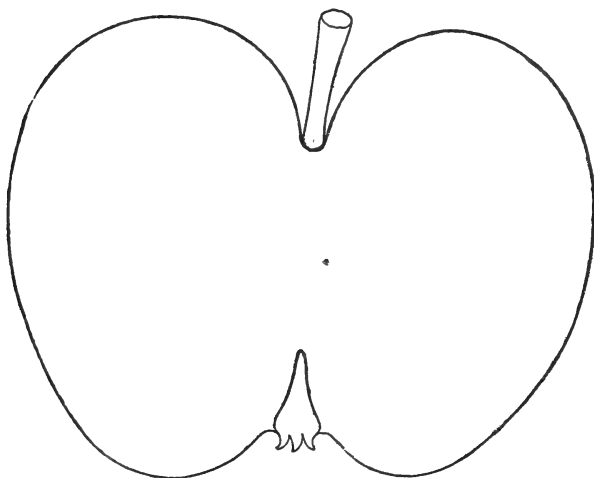
Origin, Berks Co., Pa.

Fruit below medium, roundish oblate, striped and marbled with bright red. Stalk long, slender. Calyx large. Flesh whitish, slightly stained with red, tender. Good. January to March. (Am. P. S. Rep.)

RED ASTRACHAN.

Deterding's Early.	Vermillon d'Été.
Astrachan Rouge.	Abe Lincoln.
Rother Astrakan.	

A fruit of extraordinary beauty, first imported into England, with the White Astrachan, from Sweden, in 1816. It bears abundantly with us, and its singular richness of color is heightened by an exquisite bloom on the surface of the fruit, like that of a plum. It is one of the



Red Astrachan.

handsomest dessert fruits, and its quality is good, but if not taken from the tree as soon as ripe it is liable to become mealy. Tree a vigorous

grower, upright spreading. An early and abundant bearer. Young shoots clear reddish brown.

Fruit pretty large, rather above the middle size, and very smooth and fair, roundish, a little narrowed towards the eye. Skin almost entirely covered with deep crimson, with sometimes a little greenish yellow in the shade, and occasionally a little russet near the stalk, and covered with a pale white bloom. Stalk rather short and deeply inserted. Calyx partially closed, set in a slight basin, which is sometimes a little irregular. Flesh quite white, crisp, moderately juicy, with an agreeable, rich, acid flavor. Good to very good. Ripens from last of July to middle of August.

RED AUTUMN CALVILLE.

Calville Rouge d'Automne.	Calville Rouge.
Calville d'Automne.	Pomme Violette.
Erd Beere, or Strawberry of Switzerland.	Rosseau, incorrectly.

An old French Apple of unknown origin. Tree vigorous, productive. Young wood dark reddish brown.

Fruit large, roundish conical, deeply ribbed, pale yellowish, washed and overspread with shades of rich dark, or very dark red. Flesh white, tender, juicy, often stained with red, sprightly aromatic, subacid. Good. September to December. An unprofitable variety.

RED BELLE-FLEUR.

Belle-Fleur. Striped Belle-Fleur. Belle-Fleur Rouge. Wigwam.

A French variety, scarcely worth cultivation.

Fruit large, regular, oblong conical, pale greenish yellow, but nearly covered with red, striped with dark red. Flesh white, tender, of tolerably mild flavor, apt to become mealy. Poor. November to January.

RED CANADA.

Old Nonsuch, of Mass.	Poland.	Richfield Nonsuch.
	Steele's Red Winter.	

An old fruit, formerly much grown in Connecticut and Massachusetts, but is not now much planted, on account of its small size and poor fruit; succeeds well in Western New York, Ohio, and Michigan. Tree thrifty, but of slender growth; very productive. Young wood brownish olive.

Fruit medium, oblate, inclining to conic. Skin yellow, mostly shaded with deep red or crimson, somewhat striped or splashed on the sunny side, and thickly sprinkled with gray, and sometimes greenish dots. Stalk short, inserted in a broad, deep cavity. Calyx closed. Segments long, in a small, narrow, somewhat irregular basin. Core small, close. Flesh white, tender, crisp, abounding with a brisk, refreshing juice, and retaining its fine, delicate flavor to the last. Very good to best. January to May.

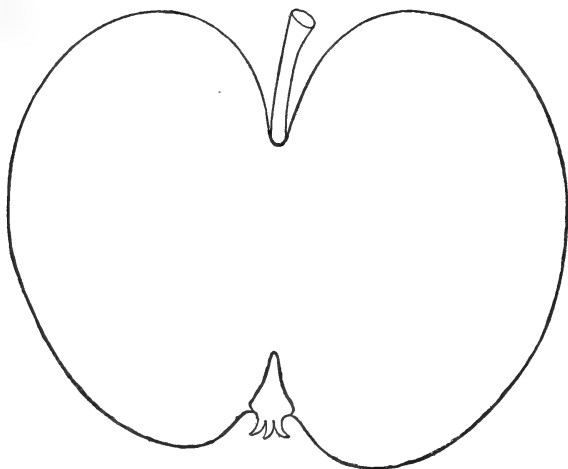
RED CATHEAD.

Cathead of some.

Tree upright, vigorous, and productive, extensively grown in the

eastern and southwestern counties of Virginia. Young wood dull reddish brown, downy.

Fruit large, roundish conic, yellow, partially shaded with dull red, and sometimes deeper red in the shade, and thickly sprinkled with whitish dots. Stalk short, inserted in a deep cavity. Calyx open, set in a large basin. Flesh yellowish, tender, juicy, pleasant subacid. Good to very good. October, November.



Red Canada.

RED CEDAR.

Origin unknown. Tree moderately vigorous, upright spreading.

Fruit medium, dark rich red. Flesh yellow, mild subacid. Valued for its long keeping quality.

RED CHEEK.

There are claimed to be three distinct Apples under this name. One is said to have originated on the farm of ——— Hull, Sharon, Conn.; the tree forming a small branching head, a great bearer, and the fruit a long keeper.

Fruit medium, roundish oblate conic, whitish, shaded in the sun with light red. Calyx small, closed. Flesh white, tender, juicy, pleasant mild subacid. Core medium. December to February.

Another RED CHEEK is said to have originated near Dracut, Mass.

Fruit medium, roundish conical, whitish, shaded with crimson in the sun, few gray dots. Calyx closed. Flesh white, tender, juicy, pleasant subacid. Core rather large. November, December.

Another comes from New Jersey.

Fruit medium, roundish oblong oval, inclining to conic, whitish yellow, shaded with crimson in the sun, gray and light dots. Stalk short. Calyx partially closed. Flesh white, tender, juicy, subacid. Core rather small. December, January.

RED FAVORITE.

Origin near Carlisle, Pa.

Fruit medium, oblate, juicy, subacid. (A. Pom. S. Rep.)

RED GILLIFLOWER.

Red Seek-no-Farther.

Harkness New Favorite.

Fruit medium, oblong conical, fine red. Flesh white, mild, rich subacid. November to January. Tree a poor bearer. (Elliott.)

RED HORSE.

Received from Kentucky. Tree of upright growth.

Fruit medium, oblate, with broad ribs, mostly covered with dark red, and obscure splashes and stripes, and pretty thickly sprinkled with light gray dots, and nettings of russet. Stalk short. Cavity large, irregular. Calyx open. Flesh yellowish, crisp, tender, juicy, mild subacid, aromatic. Very good. October, January.

We have had but little opportunity of comparing this with other varieties, and it may prove a variety known by another name.

REDICK.

An old Connecticut Apple. Tree moderately vigorous, productive.

Fruit below medium, roundish oblate, yellow, shaded, splashed, and striped with dark red. Flesh yellowish, tender, juicy, pleasant. Good. Core small. November, December.

RED INGESTRIE.

Raised by Mr. Knight. This is greatly admired as a dessert Apple in England, but not here.

Fruit small, oblong or ovate, with a wide basin at the eye, and a short and slender stalk. Bright yellow, tinged and mottled with red on the sunny side. Flesh very firm, juicy, and high flavored. Good. Ripens in September and October.

RED JEWELL.

Originated in Todd Co., Ky. Tree a good and handsome grower, an early bearer, and uniformly productive. A new promising sort.

Fruit small, roundish oblate. Sides often unequal. Color very dark crimson red, with many white conspicuous dots. Stalk slender. Calyx closed, or partially open. Flesh yellowish, firm, compact, juicy, mild, pleasant subacid. Good to very good. December to February.

RED JUNE SWEET.

June Sweeting.

Origin unknown. Received from Pennsylvania. Tree a fine grower and abundant bearer, continuing a long time in use.

Fruit medium, roundish inclining to oblate, greenish yellow, striped, splashed, and shaded with dull red. Stalk short. Calyx closed. Flesh

white, tender, moderately juicy, rich, pleasant, sweet. Very Good. July, August.

RED MORMON.

From Pennsylvania. Tree vigorous, upright spreading, productive.

Fruit medium, oblate, yellowish, shaded and indistinctly splashed with red, small dots. Stalk long, slender. Calyx closed. Flesh yellowish, tender, juicy, slightly aromatic subacid. Good to very good. Core small. January to March.

RED MUST.

An old Herefordshire (England) cider fruit, of large size, roundish oblate, yellow, with red cheek in the sun. Flesh rich. October, November.

RED RANCE.

Origin unknown. Tree a vigorous, upright spreading grower, productive.

Fruit medium or below, roundish, slightly conic. Color fine yellow, shaded with red and thickly covered with whitish dots. Stalk short, inserted in a small cavity. Calyx closed, set in a broad, shallow basin. Flesh yellowish, firm, juicy, rich, with a mild Spitzenburgh flavor. Good to very good. December, February.

RED REPUBLICAN.

Origin, Lycoming Co., Pa. Tree vigorous, spreading, moderately productive.

Fruit large, roundish oblate. Skin yellowish, striped and shaded with red, and sprinkled with large whitish dots. Stalk short, in a large cavity. Calyx closed. Basin broad, deep, and furrowed. Good. Flesh coarse, tender, juicy, subacid. December, January.

RED ROMARIN.

Pomme Romarin Rouge.

Mela di Rosmarino rossa.

An Italian fruit.

Fruit large, oblate oblong conic, bright yellow, shaded with red, and dotted with small brown spots. Stalk slender. Calyx closed. Flesh white, fine-grained, crisp, sugary acid, perfumed. Core small. December to March. (An. Pom.)

RED RUSSET.

Origin, farm of Mr. Sanborn, Hampton Falls, N. H. Tree very vigorous, upright spreading, and productive. Young wood clear reddish brown.

Fruit large, roundish conic, yellow, shaded with dull red and deep carmine in the sun, and thickly covered with gray dots, with a slight appearance of rough russet on most of the surface. Stalk rather short and thick, inserted in a medium cavity, surrounded with thin russet. Calyx nearly closed. Segments long, recurved, in a narrow, uneven basin. Flesh yellow, solid, crisp, tender, with an excellent rich, subacid flavor, somewhat resembling Baldwin. Very good. January to April.

RED SEEK-NO-FARTHER.

Origin unknown. From Pennsylvania. Tree open, spreading, good bearer.

Fruit medium, oblate, greenish yellow, splashed, striped, and shaded with red. Flesh whitish green, crisp, tender, juicy, pleasant, mild subacid. Core small. Good. December, January.

RED STREAK.

Herefordshire Red Streak. Scudamore's Crab. Johnson.

A capital English cider Apple, which thrives admirably in this country, and is very highly esteemed, as it makes a rich, high flavored, strong liquor. It is a handsome grower, and a great bearer.

Fruit of medium size, roundish. Calyx small, set in a rather deep basin. Stalk rather slender and short. Skin richly streaked with red, with a few yellow streaks and spots. Flesh yellow, rich, firm, and dry. Good.

RED STRIPE.

English Red Stripe. Carolina Red Stripe. Rockhill's Summer Queen.

Origin unknown. Comes to us from Indiana. Tree hardy and productive. Valuable fruit for market or cooking.

Fruit medium, oblong conical, almost ribbed, whitish, considerably striped, splashed, and mottled with crimson. Stalk short and slender. Calyx closed. Flesh white, tender, juicy, pleasant subacid. Good. August. Core large and open.

RED SWEET.

Origin, on the farm of D. C. Richmond, Sandusky, O. Tree upright, vigorous, and productive.

Fruit medium, roundish oval, yellowish, striped and shaded with light red, and sprinkled with greenish dots. Flesh whitish, very tender, juicy, sweet, and excellent. Good. November to February.

RED WARRIOR.

Origin, North Carolina. Distinct from Nickajack, which is sometimes grown under this name. Tree upright, with young shoots dark reddish.

Fruit large, roundish oblate, yellow, striped and marbled with two shades of red. Flesh yellowish, crisp, juicy. Good. November to March.

RED WINTER CALVILLE.

Calville Royale d'Hiver.	Calville Rouge d'Hiver.	Calville Rouge Normande.
Calville Rouge d'Anjou.	Calville Rouge.	Sanguinole.
Caillot Rosat.	Red Calville.	Calville vraie des Allemands.
	Cushman's Black?	

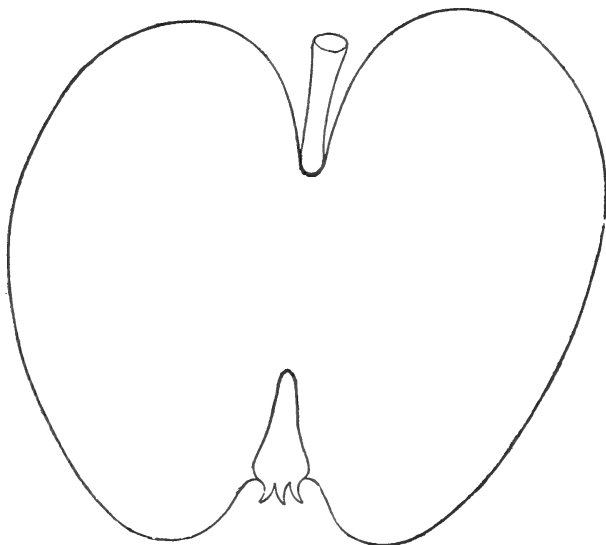
An old French variety, quite superseded.

Fruit medium, roundish conic, ribbed, pale and dark red. Flesh tender, mild subacid. Poor. November to February.

RED WINTER PEARMAIN.

Red Lady Finger.	Buncombe.	Red Fall Pippin.
Bunkum.	Red Vandevere.	Meig's.
Robertson's Pearmain.	Batchelor.	Tinson's Red.
Jackson's Red.	Southern Fall Pippin.	Powers.

Origin unknown. An old variety. Tree of moderate upright growth; a regular bearer. Young shoots clear rich reddish brown, slightly downy.



Red Winter Pearmain.

Fruit medium size, roundish oblong conic, yellowish white, mostly shaded with maroon and thickly sprinkled with large light dots. Stalk very short, in an acute deep cavity, slightly russeted. Calyx closed, set in a small, round, open basin. Flesh whitish yellow, tender, juicy, mild subacid, or nearly sweet, slightly aromatic. Good to very good. January to March.

RED WINTER SWEET.

Origin unknown. Specimens from Kentucky, although the fruit is there stated to have come from Virginia or Maryland.

Fruit medium, roundish conic, deep crimson on yellow, with indistinct splashes and stripes, large and small light dots. Stalk short. Cavity small. Calyx small, closed. Flesh yellow, a little coarse, rich, honeyed sweet. Fine for cooking. December, February.

REED.

Originated on the premises of George Reed, Leedsville, Dutchess Co., N. Y.

Fruit medium, roundish, whitish, shaded, splashed, and mottled with light and dark red. Stalk medium. Calyx small, closed. Basin shallow. Flesh white, a little stained next the skin, tender, juicy, pleasant subacid. Good. November.

REINETTE CALVILLE.

Fruit medium, roundish, inclining to oblong, rich yellow, with broad stripes of dull red in the sun. Flesh yellowish, tender, juicy, perfumed. November January. (Diel.)

REINETTE COULON.

A new Apple, originating with M. L. Coulon, Liege, in 1856. Tree vigorous, with dark reddish gray young shoots.

Fruit very large, roundish oblate, slightly conic, golden yellow, washed and splashed with rich bright red, many prominent reddish gray dots. Stalk stout, short. Cavity deep. Calyx closed. Basin rather deep. Flesh creamy white, semi-crisp, brisk subacid, agreeable. Core open, large. November, January. (An. Pom.)

REINETTE DANIEL.

Origin unknown. Tree vigorous, spreading.

Fruit above medium, roundish oblate. Sides unequal, whitish yellow, nearly covered with thin dull russet. Stalk short. Calyx small, closed. Flesh whitish, moderately tender, juicy, brisk, sharp subacid. Good. November to February.

REINETTE D'ANJOU.

Of French origin. New. Tree vigorous, upright spreading.

Fruit medium or above, roundish, slightly oblate, yellow, shaded and indistinctly splashed with rich red, few light or areole dots. Stalk rather slender. Cavity slightly russeted. Calyx large, open. Basin shallow. Flesh yellow, crisp, tender, juicy, brisk, rather rich subacid. Very good. Core medium, hollow. December, February.

REINETTE DE BAYEUX.

A Belgian Apple of unknown origin. Tree vigorous and productive.

Fruit large, roundish, slightly conical, golden yellow, shaded with red around the stalk, and with scattered red dots. Stalk short. Cavity large. Calyx half closed. Flesh white, half tender, sharp subacid. December to January. (An. Pom.)

REINETTE DE BREDÁ.

Fruit medium, roundish oblate, rich yellow, with russet and red in the sun. Flesh yellowish white, firm, crisp, juicy, vinous, aromatic. December to March. (Diel.)

REINETTE DE CAUX.

Of French origin. Tree vigorous, productive.

Fruit large, roundish, slightly oblate, yellow, splashed and mottled with bright red in the sun, many gray dots. Stalk slender. Calyx half closed. Flesh yellowish white, tender, juicy, agreeable aromatic, subacid. January, February. (Alb. Pom.)

REINETTE DE CLAREVAL.

Of French origin.

Fruit medium, roundish oblate, clear lemon yellow, with a slight tinge of red in the sun. Flesh fine, white, firm, juicy, aromatic, vinous. December, March. (Diel.)

REINETTE DE HONGRIE.

An old Apple, described by Lindley as :

Fruit medium, roundish oblate, rough gray russet, with faint orange in the sun, numerous warty specks. Flesh greenish white, firm, crisp, aromatic. November to April.

REINETTE DE THORN.

Supposed to have originated in Holland. It is described in the *Annals of Pomology* as a vigorous, upright, productive tree.

Fruit medium to large, roundish truncated, yellowish, washed, shaded, and mottled with bright red, gray dots. Stalk long, slender. Calyx with long segments. Flesh creamy white, tender, juicy, rich subacid. December.

REINETTE DORÉ.

Reinette Jaune Sardive.

Reinette Rousse.

Of French origin.

Fruit medium, roundish, pale yellow, with a tinge of red in the sun, nettings of russet, and large brown dots. Stalk short. Calyx closed. Flesh whitish, not very juicy, firm, subacid. Good. Core small. October, November.

REINETTE DU VIGAN.

Of foreign unknown origin. Tree vigorous, hardy, and productive.

Fruit medium, roundish conical, rich yellow, with many red and gray dots, faint blush of red in the sun. Stalk slender. Calyx small, closed. Flesh yellow, tinted with rose, fine-grained, firm, juicy, rich subacid. December to March. (An. Pom.)

REINETTE GRAIN D'OR.

Tree vigorous, productive.

Fruit large, roundish oblate, yellowish, with gray spots and dots, bronzed in the sun. Stalk slender. Calyx closed. Flesh yellowish, firm, juicy, brisk subacid. December, January. (Alb. Pom.)

REINETTE PIPPIN.

Origin, supposed France.

Fruit medium, oblate, inclining to conic, pale yellow, with light and gray dots. Stalk short. Cavity large. Calyx small, closed. Basin medium or small, corrugated. Flesh white, crisp, moderately juicy, brisk subacid. Good. Core rather large. December, January.

REINETTE QUARRENDON.

French origin.

Fruit medium to large, roundish oblate, golden yellow, washed and splashed with two shades of red, small black dots. Stalk slender. Calyx closed. Flesh white, half crisp, sugary acid. December. (Alb. Pom.)

REINETTE ST. LAMBERT.

Supposed to have originated in Liege.

Fruit medium to large, roundish oblate, yellow, mostly overspread with brilliant rich red or crimson, with a tinge of purple. Stalk short. Calyx in a deep basin. Flesh yellowish white, fine, juicy, delicate, perfumed. September. Of good promise. (An. Pom.)

REINETTE TRIOMPHANTE.

Victorious Reinette.

A German early winter Apple.

Fruit large, oblong, pale yellow, thickly dotted with white specks and rough, projecting warts. Flesh yellow, firm, juicy, pleasant aromatic. Good. The tree is of thrifty growth, and is said to bear well.

REINETTE VERVAENE.

Originated at Ledeberg-les-Gand. Tree spreading. Young wood brownish, downy.

Fruit medium, oblate, yellowish, mottled and shaded with brick red. Flesh greenish white, fine-grained, sharp subacid. Good. November.

REPUBLICAN PIPPIN.

Origin, Lycoming Co., Pa. First discovered by George Webb, who gave it the name. Tree of strong, but crooked growth, only moderately productive.

Fruit large, irregularly oblate, dull yellow, mostly shaded with red, somewhat striped and marbled, and thinly sprinkled with large gray dots. Stalk long, slender. Calyx small, closed. Flesh whitish, tender, juicy, pleasant subacid. Good. Cooking and drying. September, October.

RHODE ISLAND GREENING.

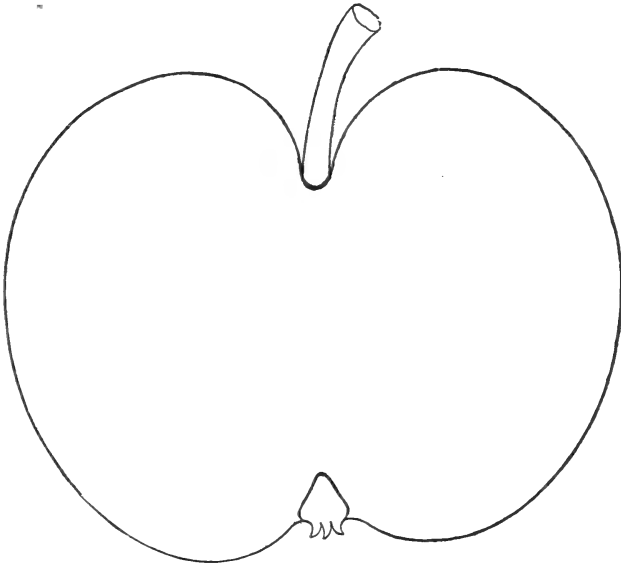
.Burlington Greening.
Jersey Greening.

Russine.
Grünling von Rhode Island.

Bell Dubois.

The Rhode Island Greening is such a universal favorite, and is so generally known, that it seems almost superfluous to give a description

of it. It succeeds well in almost all of the northern sections of the States, and on a great variety of soils, and where it does succeed is one of the most esteemed and profitable among early winter fruits. In Southern Ohio, Indiana, and farther south it drops too early. Tree a very vigorous, strong, spreading grower. Young shoots reddish brown. Very productive.



Rhode Island Greening.

Fruit large, roundish, a little flattened, pretty regular, but often obscurely ribbed, dark green, becoming greenish yellow when ripe, when it sometimes shows a dull blush near the stalk. Calyx small, woolly, closed, in a slightly sunk scarcely plaited basin. Stalk three-fourths of an inch long, curved, thickest at the bottom. Flesh yellow, fine-grained, tender, crisp, with an abundance of rich, slightly aromatic, lively, acid juice. Very good. November to February.

RHODE'S ORANGE.

Raised by Col. Mercer Rhodes, Newton Co., Ga. Tree a slow grower, spreading, productive.

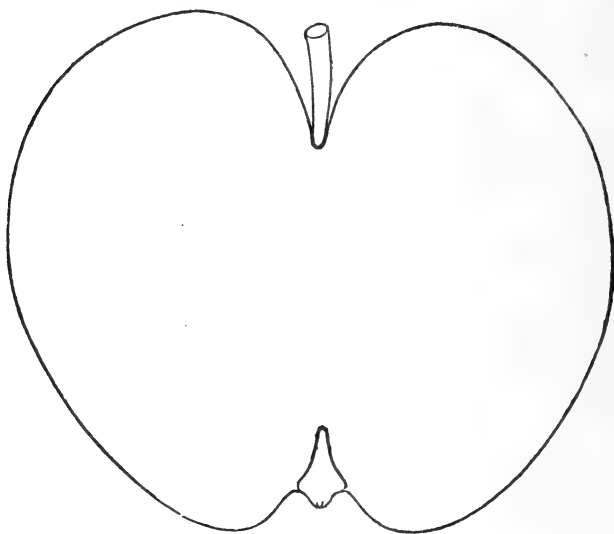
Fruit medium, roundish oblate, yellowish, washed, striped, and mottled with light red, many light and gray dots. Stalk rather long. Calyx small, closed. Flesh whitish, tender, juicy, pleasant subacid. Good. Core small. August.

RIBSTON PIPPIN.

Glory of York. Travers'. Formosa Pippin. Rockhill's Russet

The Ribston Pippin, a Yorkshire Apple, stands as high in Great Britain as the Bank of England, and to say that an Apple has a Ribston

flavor is there the highest praise that can be bestowed. But it is scarcely so much esteemed here, and must be content to give place with us to the Newtown Pippin, the Swaar, the Spitzenburgh, or the Baldwin. In Maine, and parts of Canada, it is very fine and productive.



Ribston Pippin.

Fruit of medium size, roundish, greenish yellow, mixed with a little russet near the stalk, and clouded with dull red on the sunny side. Stalk short, slender, planted in a rather wide cavity. Calyx small, closed, and set in an angular basin. Flesh deep yellow, firm, crisp, with a sharp, rich, aromatic flavor. Very good. The tree forms a spreading top. November to April.

RICHARD'S GRAFT.

Derrick's Graft.
Strawberry.

Red Spitzenburgh.
Wine.
Uncle Richard's Graft.

Derrickinan.
Dirck's Graft.

Originated at Greenport, Columbia Co., N. Y. An excellent fall Apple, worthy of extended cultivation. Tree a free, upright spreading grower, productive. Young shoots very dark reddish brown, downy.

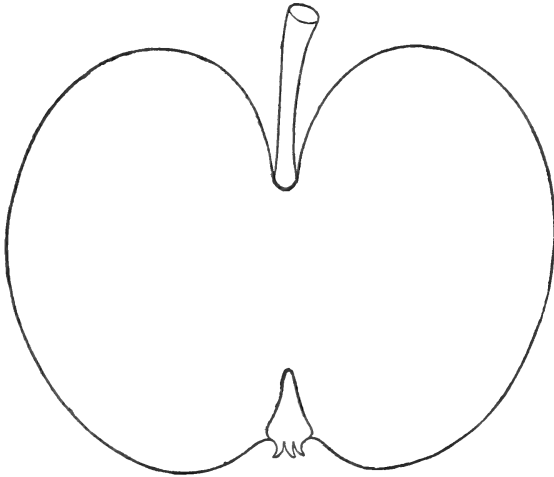
Fruit medium, roundish oblate. Color yellow, nearly covered with splashes, marblings, and shades of rich red. Stalk medium length, slender. Cavity large. Calyx small, closed. Segments sometimes recurved. Basin medium, slightly uneven. Flesh yellowish, tender, juicy, pleasant, rich, aromatic subacid. Very good. September, October.

RICHARDSON.

Origin, farm of Ebenezer Richardson, Massachusetts.

Fruit large, roundish conic, mostly covered with red, bright in the

sun, with numerous large, light specks. Stem rather stout, in a large cavity. Calyx large, open, in a deep narrow basin. Flesh greenish white, remarkably tender, juicy, with a fine, rich, almost saccharine flavor. Good. Last of August and September. (Cole.)



Richard's Graft.

RICHMOND.

Origin, farm of D. C. Richmond, Sandusky, O. Tree a free grower, and a profuse bearer.

Fruit large, oblate, light yellow, striped, splashed, and marbled with crimson, and thickly sprinkled with light brown dots. Stalk short. Calyx open. Flesh white, tender, juicy, vinous, sweet, and rich. Good. October to February.

RIDGE PIPPIN.

Origin unknown, supposed Pennsylvania. Tree a good grower and bearer.

Fruit rather large, roundish conical, very much ribbed. Yellow, very slightly shaded, sprinkled with russet and crimson dots. Stalk rather short, inserted generally in a large cavity. Calyx closed, set in an abrupt uneven basin. Flesh yellowish, juicy, crisp, with a mild, almost saccharine, slightly aromatic flavor. Good. March, April.

Valued mainly as a long keeper and salable in market.

RIEST.

From Simon S. Riest, Lancaster, Pa.

Fruit large, roundish, ribbed at apex, fair yellow. Flesh fine, pleasant. Good. August.

RIGLEY.

From Pennsylvania. Tree moderately vigorous, upright.

Fruit medium, roundish conical, pale yellow, shaded and splashed with shades of red. Stalk medium. Calyx closed. Flesh whitish, moderately juicy, subacid. Good. Core small. December to March.

RITTER.

Origin, Berks Co., Pa. Tree moderately vigorous, upright spreading.

Fruit medium, roundish oblate, yellow, striped and splashed with two shades of red. Stalk short. Calyx closed. Flesh white, tender, juicy, mild, pleasant subacid, almost sweet. Good. September.

RIVER.

Origin, Massachusetts. Tree of slow growth, but productive.

Fruit medium to large, oblate, slightly conic, ribbed, yellow, striped and shaded with dark red, with a slight bloom. Stalk medium, deeply planted. Calyx open, set in a basin of moderate depth. Flesh juicy, tender, pleasant subacid. Good. August, September.

ROADSTOWN PIPPIN.

Introduced to notice by James McLean, of Roadstown, N. J., and originated in that town. A strong, erect grower, and makes a large tree; a good bearer, and a profitable market fruit, large and uniformly fair, excellent for cooking and drying. Size large, oblate oblique. Calyx small, and closed. Skin greenish yellow, sparsely sprinkled with green dots. Flesh white, tender, sprightly subacid. Good to very good. Middle of April to the middle of September.

ROANE'S WHITE CRAB.

An old Virginia cider Apple; valuable only for that purpose.

Fruit small, round, yellow. September, October.

ROBERSON'S WHITE.

Origin said to be Culpepper Co., Va., where it is popular. Tree upright, of rapid growth, and bears regular crops.

Fruit medium, roundish oblate. Color greenish yellow, with many dark dots. Flesh yellowish, fine-grained, crisp, juicy, subacid. Good. October to December.

ROBERT BRUCE.

Origin, Wake Co., N. C. Tree of vigorous, upright growth, and good bearer.

Fruit rather above medium, oblate, crimson shaded. Calyx open. Stalk short. Flesh white, rather coarse, juicy, pleasant. August. (Gar. Mon.)

ROBERTS.

Roberts Seedling.

Origin, Muskingum Co., O.

Fruit medium, roundish oblate, pale yellow, with blush cheek in sun. Flesh white, tender, juicy, pleasant subacid. Very good. November, December.

ROBEY.

Robey's Seedling.

Raised by H. R. Robey, Fredericksburgh, Va. Tree vigorous and productive.

Fruit large, round, tapering to the eye. Color lively red, faintly striped, on a scarcely perceptible yellow ground, thickly covered with creamy spots. Flesh yellow, juicy, pleasant subacid. Good. November, December.

ROBIN.

This is a new Apple, originated in the garden of M. Robin, at Corbeil, and described in the Annals of Pomology.

Fruit medium to large, oblate conic, yellowish, mottled and veined with vermilion red in the sun. Stalk short. Calyx large. Flesh white, firm, juicy, perfumed subacid. April to May.

ROBINSON'S PIPPIN.

An old English Apple of little value.

Fruit small, roundish oblate, greenish yellow, bronzed in the sun. Flesh greenish, tender, juicy, sharp subacid or acid. December, February.

ROBINSON'S SUPERB.

Farrar's Summer.

An Apple from Virginia. Tree upright, productive.

Fruit large. Flesh crisp, juicy. September, October.

ROBINSON'S SWEET.

Origin, Vermont. Tree upright, vigorous, productive.

Fruit medium, round, light red, striped. Flesh fine-grained, juicy, sweet. Too much of the fruit imperfect to make it desirable.

ROCHELLE REINETTE.

Reinette de la Rochelle.

Tree vigorous, productive.

Fruit large, roundish oblong conical, pale yellow, brownish blush in sun, many large gray and red spots or dots. Flesh whitish, rather coarse, tender, juicy, mild subacid. January. (Am. Pom.)

ROCK.

Origin, Peterborough, N. H., recommended by Robert Wilson, of Keene, as an excellent fruit. Tree vigorous, with long, slender branches, very productive.

Fruit large, roundish, slightly flattened, striped and splashed with dark and bright red on a yellowish ground. Flesh white, tender, juicy, flavor subacid. Good. September, October.

Another Rock Apple comes from Pennsylvania.

Fruit medium, oblate, inclining to conic, whitish, sprinkled with a few indistinct gray and light dots. Flesh white, tender, juicy, lively subacid. Good. Core small. August.

ROCK PIPPIN.

Lemon.

Walnut Stem.

From Ohio.

Fruit medium, oblong conical, yellow, bronzed in sun. Flesh firm, and a good keeper, and in spring profitable market fruit. (O. P. S.)

ROCKPORT SWEET.

Origin, Massachusetts. Tree a strong grower and productive. Young shoots reddish brown, smooth.

Fruit medium, roundish oblate, greenish, becoming waxen yellow, with a dull red cheek. Stalk rather long, inserted in a cavity somewhat ribbed, surrounded by russet. Calyx large, nearly closed, set in a broad, open basin. Flesh whitish, juicy, brisk, sweet. Good to very good. January to April. Core small.

There is claimed to be another Rockport Sweet, originating in Ohio, but we fail to discover the distinction by means of the fruit.

ROCK SWEET.

Origin, farm of Elihu Pearson, Newbury, Mass. Tree hardy, vigorous, and a constant bearer. Young shoots reddish olive.

Fruit medium or below, roundish oblate, slightly conic, reddish, shaded, striped, and splashed with darker red, and sprinkled with large whitish dots. Stalk short, set in a broad, deep, russeted cavity. Calyx closed. Basin shallow, corrugated. Flesh white, tender, juicy, rich, sweet, and pleasant. Good to very good. September.

ROLEN'S KEEPER.

Rowland.

Fruit medium, round, regular, splashed red on russet. Dots scattered, small, white. Calyx small, closed. Flesh greenish yellow, fine-grained, acid, rich. Good to very good. March, April. (Warder.)

ROLLIN.

Rolla ?

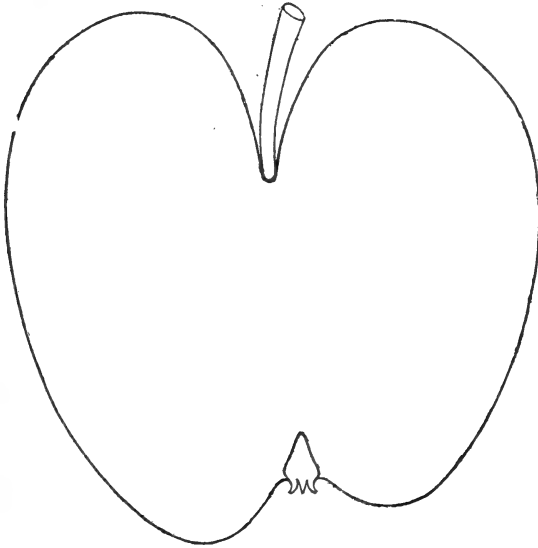
Origin, Franklin Co., N. C. Tree of moderate growth, bears abundantly.

Fruit medium, roundish oblate, yellow, stained and striped with dull red. Stalk long. Cavity wide and deep. Basin shallow. Flesh compact, fine-grained, subacid. Good to very good. October to January.

ROMANITE.

Broad River. Southern Romanite.

The origin of this Apple is unknown. It has been sometimes confounded or placed as identical with Shockley in North Carolina, where it is much grown, but it is quite distinct. It is also distinct from Gil-



Romanite.

pin, sometimes known as Romanite. Tree vigorous, spreading, very productive. Branches slender. Wood short-jointed, dull grayish brown.

Fruit small, roundish conical, truncated, yellow ground, mostly overspread with clear, light, handsome red, indistinct light dots. Stalk slender. Calyx in an abrupt basin. Flesh yellowish, fine-grained, juicy, mild, pleasant subacid. Good to very good. February, April. Valuable as a keeper, and for the evenness of its fruit.

ROMAN STEM.

Originated at Burlington, in New Jersey, and is much esteemed in that neighborhood. Tree very productive, moderately vigorous, spreading, irregular.

Fruit scarcely of medium size, roundish, whitish yellow, with a faint brownish blush, sprinkled with patches of dark russet, and, when ripe, having a few reddish specks, unless the fruit is very fair. Stalk

three-fourths of an inch long, inserted in a shallow cavity under a fleshy protuberance. Calyx set in a rather narrow basin, with a few plaits. Core hollow. Flesh tender, juicy, with a rich, pleasant, musky flavor. Very good. November to March.

ROME BEAUTY.

Gillett's Seedling.

Origin, Southern Ohio. Tree a moderate grower, succeeds well at the Southwest. Young wood clear reddish brown, slightly downy or gray. A late bloomer.

Fruit large, roundish, approaching conic, yellow, shaded and striped with bright red, and sprinkled with light dots. Stalk an inch long, inserted in a large, deep cavity, surrounded by greenish russet. Calyx partially closed, set in a narrow, deep basin. Flesh yellowish, tender, juicy, sprightly subacid. Good. Core rather large. October to December.

ROSA.

An old French Apple. Tree moderately vigorous.

Fruit large, roundish, light yellow, shaded and splashed with red in the sun, reddish gray dots. Flesh white, fine, tender, juicy, subacid. December, January. (Alb. Pom.)

ROSE.

Coxe calls this the Rose Apple of China, and says he imported it from England. Tree vigorous, upright, abundant bearer.

Fruit large, rather oblong, striped red and green. Flesh pleasant, juicy. October.

ROSEAU.

Foreign. Tree poor grower and unprofitable.

Fruit large, dark red, irregular in size and form. Flesh crisp, juicy, rich. Good. November, February.

ROSEAU D'AUTOMNE.

Tree large, vigorous grower, spreading.

Fruit medium, roundish ovate, flat at base, yellow, russet at stem, blush red cheek. Flesh yellow, juicy, tender, rich, firm. September. (Coxe.)

ROSE CALVILLE.

From France.

Fruit medium, roundish inclining to conic, yellowish, shaded and rather indistinctly splashed with crimson. Stalk short. Calyx closed, or partially open. Flesh whitish, tender, juicy, subacid. Good. November, January.

ROSE DE HOLLANDE.

Rose de la Benauge. Rose Tendre. Pomme de Codillac

Tree vigorous.

Fruit medium to large, oblate conical, golden yellow, spotted and veined with rosy carmine. Stalk small, short. Calyx half open. Flesh yellowish white, tender, sugary, acid. Winter. (An. Pom.)

ROSEMARY.

Rosemary Russet.

An old Apple described by Ronalds as of medium size, roundish conical, greenish, with a little red russet. Flesh firm, yellowish, rich, and good for table or kitchen use. December, February.

ROSS NONPAREIL.

An Irish fruit, rather below medium size, roundish, narrowing a little to the eye, covered with a thin mellow russet, and faintly stained with red on the sunny side. Flesh greenish white, tender, with a rich aromatic flavor. Very good. A profuse bearer. Very subject to rot before ripening. Unprofitable. October.

ROSTOCKER.

Stetting Rouge.	Annaberger.	Matapfel.
Rothe Stettiner	Rothe Hernapfel.	Bodickheimer ?
	Berliner Glossapfel.	

A large and favorite German Apple, says Hogg, valuable for culinary purposes.

Fruit oblate, ribbed, yellowish, deep red next the sun. November to May.

ROSY RED.

An old variety, origin unknown. It is grown in Michigan, where it is claimed as a seedling of Western New York, and in Indiana, and there claimed as a seedling of Cambridge, Ia.

Fruit medium, roundish oblate, slightly conical, yellow, shaded, splashed, and marbled with light and dark red, light dots. Stalk medium, slender. Cavity deep, acute. Calyx closed, medium, irregular. Flesh yellowish, breaking, sometimes a little stained, mild subacid. Good. November, January.

ROUND WINTER NONESUCH.

A variety described by Hogg as an excellent bearer, and valuable for market.

Fruit large, roundish oblate, obscurely ribbed, greenish yellow, with broken stripes and spots of red, some russet dots. Calyx large, closed. Stalk short. Flesh greenish white, tender, juicy, sweet. November to March.

ROWE.

Rowe's Seedling.

An old Devonshire sauce Apple, described by Ronalds as:

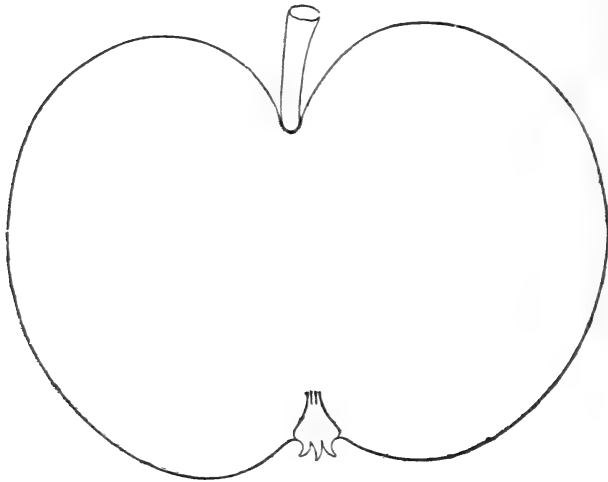
Fruit large, roundish conical, light green. Flesh greenish white, juicy, pleasant. August, September.

ROXBURY RUSSET.

Reinette Rousse de Boston.
 Howe's Russet.
 Marietta Russet.
 Belpre Russet.

Boston Russet.
 Putnam Russet.
 Warner Russet.
 Sylvan Russet.

This Russet, a native of Massachusetts, is one of the most popular market fruits in the country, as it is excellent, a prodigious bearer, and keeps till late in the spring wherever the soil and climate suit it. South and West it drops its fruit too early, and is therefore not valuable. The tree is healthy, moderately vigorous, spreading, with young shoots of a reddish brown, downy.



Roxbury Russet.

Fruit of medium size, often large, roundish, a little flattened, and slightly angular. Skin at first dull green, covered with brownish yellow russet when ripe, with, rarely, a faint blush on one side. Stalk nearly three-fourths of an inch long, rather slender, not deeply inserted. Calyx closed, set in a round basin of moderate depth. Flesh greenish white, moderately juicy, with a rather rich subacid flavor. Good to very good. Ripens in January, and may be brought to market in June.

ROYAL PEARMAIN.

Merritt's Pearmain.

An old Apple described by Coxe and Ronalds. It is to be found

in the old orchards of New Jersey, Pennsylvania, and Ohio. The tree a moderately vigorous grower, very productive, the fruit keeping well.

Fruit medium, roundish conical truncated, yellow, mostly overspread and indistinctly striped with red, warm rough russet at the apex. Stalk slender. Cavity russeted. Calyx with short divided segments. Basin irregular or broadly furrowed. Flesh yellowish, firm, rich, mild subacid, when fully ripe almost sweet. Very good. November to March.

ROYAL REINETTE.

Royal Grise Reinette.

From Sussex, England. Described by Lindley as : tree an abundant bearer.

Fruit rather small, conical, yellow, striped with red, many gray spots. Flesh pale yellow, firm, juicy, brisk subacid. November to May.

ROYAL RUSSET.

Leathercoat Russet.

Reinette de Canada Platte.

Reinette de Canada Grise.

Passe Pomme de Canada.

An old variety. Tree hardy, vigorous, and productive.

Fruit medium, roundish oblate conical, yellowish green, mostly covered with brownish russet, which is bronzed in the sun. Flesh greenish white, firm, rich acid. Good. November, February.

ROYAL SHEPHERD.

A culinary Apple, described in Hogg as :

Fruit above medium, roundish oblate, greenish yellow, dull red in the sun. Flesh greenish white, crisp, brisk, pleasant acid. November.

ROYAL SOMERSET.

Fruit medium, roundish oblate, pale yellow, with broken streaks of red in the sun. Flesh yellowish, tender, juicy, pleasant subacid. November to March. Cooking. (Hogg.)

RULES SUMMER SWEET.

Origin, Cumberland Co., Pa.

Fruit medium, oblong, yellow. August. Poor. (A. Pom. S. Rep.)

RUM APPLE.

Origin, Pawlet, Vt., on the farm of Brownley Rum. Tree upright, vigorous, an early and profuse bearer.

Fruit medium, oblate, yellow, slightly shaded with crimson. Stalk short. Cavity moderate. Calyx partially closed. Basin broad and shallow. Flesh whitish, juicy, tender, sprightly subacid. Good. November to March.

RUNNELLS.

Origin, Maine. Profitable as a market fruit from its great productiveness and long keeping.

Fruit medium, roundish, deep green in the shade, mostly covered with purplish brown. Flesh firm. Moderately good. April to June. (Me. Rep.)

RUSHOCK PEARMAIN.

Charles Pearmain.

An English Apple.

Fruit below medium, roundish, yellow, with cinnamon russet, becoming brownish in the sun. Flesh yellowish, firm, crisp, juicy, brisk subacid. December, April. (Hogg.)

RUSSET PEARMAIN.

An old variety from Connecticut. Tree moderately vigorous, productive.

Fruit medium, roundish conical, yellow, mostly covered with russet, and a brownish red cheek. Flesh yellowish, breaking, rich, brisk subacid. Good. December to March.

RUSSET TABLE PEARMAIN.

A little dessert Apple, from England. Tree of slender growth, productive.

Fruit small, roundish conical, yellowish green, slightly russeted, with a bright red cheek in sun. Flesh yellowish, firm, rich, aromatic, subacid. Very good. November to February. (Ron.)

RUSSIAN TRANSPARENT.

Ronalds describes this as forming a large broad tree, but a poor bearer.

Fruit large, roundish conical, ribbed at apex, golden yellow, faced with a flush of rose, and speckled with dark points. Flesh sweet, peculiar. Good for cooking. November, December.

RYMER.

Caldwell.
Cordwall.

Green Cossings.
Newbold's Admiral Duncan.

Newbold's Duke of York.

Of foreign origin. Tree vigorous, productive.

Fruit medium, roundish oblate, pale yellow, shaded with deep red, light dots. Flesh yellowish, rather firm, tender, subacid. Good. December to April.

SABLE SWEET.

Origin, Vermont. Tree good grower, spreading, productive.

Fruit medium, roundish oblate conic, whitish yellow, partially splashed and mottled with red. Flesh whitish, tender, juicy, mild sweet, subacid. Good. August.

SACK AND SUGAR.

Morris's Sack and Sugar.

A little, old, early English Apple. Tree a fine grower, and good bearer.

Fruit small, roundish conical, pale yellow. Flesh white, soft, juicy, sweet. Good. August.

SAILLY AUTUMN.

Salle?

Origin, Plattsburgh, N. Y., on the farm of J. H. Sanborn. Tree upright, vigorous, and productive.

Fruit medium, roundish oblate conic, greenish yellow, the exposed side frequently deep red. Stalk short, in a medium cavity. Calyx small, closed. Basin small, narrow. Flesh very tender. Subacid. Good. September.

SAINT JULIEN

Saint Julian.

Seigneur d'Orsay.

Concombre des Chartreux.

Heilige Julian's Apfel. De Saint Julien.

Pomme de Saint Julien.

An old variety, probably of French origin. Tree a strong, vigorous grower, productive.

Fruit medium, roundish conical, obtusely ribbed, yellowish russet green, slight tinge of red in sun. Flesh yellowish white, firm, rich, sweet. December. (Lind.)

ST. LAWRENCE.

Origin uncertain. Tree vigorous, upright, productive. Young shoots smooth, reddish brown.

Fruit large, oblate, tapering towards the eye, yellowish, striped and splashed with carmine. Stalk of medium length, inserted in a large cavity. Calyx firmly closed. Basin small and deep. Flesh white, lightly stained, crisp, juicy, tender, and vinous. Good to very good. September, October.

SAINT SAUVEUR.

Calville Saint Sauveur.

Pomme Saint Sauveur.

Originated in France.

Fruit large, roundish oblong conical, pale yellowish, faint blush in the sun, many light dots. Stalk short. Flesh milk white, tender, juicy, aromatic, acid. Good. November. (An. Pom.)

SALEM.

Salem Sweet.

An old Massachusetts Apple, somewhat grown in Ohio and westward. Tree a good grower and productive.

Fruit medium or above, roundish oblate conic, rough, yellow, with brown and green dots, sometimes a blush in sun. Flesh yellowish, crisp, tender, mild, almost sweet. Good. Core small. October, December.

SALOPIAN PIPPIN.

A Shropshire Apple, described by Ronalds. Tree a compact grower, constant bearer.

Fruit medium, oblate, yellowish green, faint bronzed cheek in sun, many small brown specks. Flesh white, juicy. Valued for cooking. October, December.

SAM YOUNG.

Irish Russet.

Origin, Ireland.

Fruit small, slightly flattened and regularly formed, bright yellow, a good deal covered with gray russet. Flesh greenish, quite juicy and tender. Good. November to January.

SANTOUCHEE.

Panther.

Wildcat.

Origin, North Carolina. Tree vigorous, upright grower, productive. Young shoots grayish brown, with prominent buds.

Fruit large, roundish conical, oblique, waxen white, with brown dots. Stalk medium, slender. Cavity large, furrowed. Calyx partially closed, small. Basin narrow. Flesh white, crisp, tender, juicy, subacid. Good. November to February.

SAPSON.

Sapsonvine.

An old but very nice little dessert Apple. Tree an abundant bearer.

Fruit small, roundish, crimson red, stained and striped with purplish crimson. Flesh white, stained with pink, crisp, juicy, pleasant subacid. Good. August to October.

SARTHA'S YELLOW.

Pomme de Jaune. Pomme d'Argent. Pomme de Jaune de la Sartha.

Of French origin. Tree vigorous, productive.

Fruit small or medium, roundish, yellow, spotted with brown spots. Stalk short. Calyx small, closed. Basin furrowed. Flesh yellowish white, firm, crisp, juicy, subacid. (An. Pom.)

SAVAGE'S CHEESE.

Origin, Columbia Co., Ga. Tree moderately vigorous, spreading, a good bearer.

Fruit medium, oblate, yellow, marked and striped with red. Flesh white, juicy. October. Good bearer.

SAVEWELL.

Putnam's Savewell.

Cornell's Savewell.

Origin, Westchester Co., N. Y. Tree vigorous, spreading, productive.

Fruit medium, roundish oblate, inclining to conic, pale yellow, often shaded with dull red. Stalk short. Calyx closed. Flesh yellowish, crisp, tender, juicy, pleasant subacid. Good. February, March. Valuable keeper.

SAWYER.

Origin, Amos Sawyer, Hillsborough, Ill. Tree vigorous, upright, early bearer.

Fruit medium. Form conic truncated, regular. Color waxy yellow, with faint blush of crimson, thinly sprinkled with small gray dots. Stalk medium, slender. Cavity medium, acute. Calyx rather large, somewhat open. Segments reflexed. Basin deep, abrupt, regular. Flesh yellow, breaking, tender, juicy, subacid. Core small. Quality good. April to July. (Am. Jour. of Hort.)

SAWYER SWEET.

Origin unknown. Tree a strong, healthy grower, upright spreading. Young wood reddish brown, grayish, slightly downy.

Fruit large, greenish, with blush in the sun. Flesh white, sweet. Good. October, November.

SCARLET CROFTON.

Red Crofton.

An Irish Apple.

Fruit medium, oblate, yellowish russet, red in the sun. Flesh firm, crisp, rich, sugary. October, December. (Lindley.)

SCARLET LEADINGTON.

Of Scottish origin.

Fruit above medium, roundish conical, four-sided, yellow and red striped. Flesh yellowish, veined with pink or lilac, firm, crisp, juicy, brisk, sugary. November, February. (Hogg.)

SCARLET NONPAREIL.

New Scarlet Nonpareil.

Foreign; medium size, roundish oblate conical, whitish, striped and shaded with red. Flesh yellowish white, firm, juicy, subacid. Very good. November, December.

SCARLET PEARMAIN.

Bell's Scarlet Pearmain.

Sigler's Red?

Oxford Peach.

A showy dessert Apple, of English origin.

Fruit medium sized, pearmain or conical shaped. Skin light crimson or yellow in the shade, rich crimson on the sunny side. Stalk nearly an inch long, deeply set. Flesh white, stained with a tinge of pink, crisp, juicy, subacid. Very good. In eating from the last of August to the tenth of October. A plentiful bearer.

SCARLET SWEET.

Origin, Ohio. Tree vigorous, productive. Young wood dark brownish red, downy.

Fruit medium, roundish oblate, inclining to conic, yellow, shaded

and indistinctly striped and splashed with light scarlet, many light dots. Stalk varying. Cavity open, deep. Calyx small, open. Flesh yellowish white, tender, juicy, mild pleasant sweet. Core small. Good to very good. October to February.

SCARLET TIFFING

A culinary Apple, from Lancaster, England.

Fruit above medium, roundish, inclining to oblate, pale yellow, mostly overspread with deep scarlet in the sun. Flesh pure white, tender, crisp, juicy, pleasant acid. November, December. (Hogg.)

SCHAFFER'S EARLY.

Schaffer's Early Red. Schaffer's Garden.

Origin, Lehigh Co., Pa. Tree an upright thrifty grower, and a good bearer.

Fruit medium, oblate, slightly conic, pale yellow, striped, splashed, and marbled with red, sometimes only a red cheek. Stalk short. Calyx closed. Flesh whitish, juicy, tender, pleasant subacid. Good, or very good. Core small. August, September.

SCHOONMAKER.

Schoolmocker.

An old Apple. Origin unknown. Tree moderately vigorous, upright spreading.

Fruit large, roundish oblate, yellow, bronzed blush in the sun. Flesh yellowish white, crisp, brisk subacid. Good to very good. January to March.

SCHREVEYTON GOLDEN PIPPIN.

From Nottinghamshire, England.

Fruit small, roundish, yellowish, marked with russet. Flesh yellowish, tender, crisp. Good. December, April.

SCIOTA BEAUTY.

Origin, Ohio. Tree moderately vigorous, upright spreading.

Fruit below medium, roundish ovate, whitish yellow, shaded, splashed, and striped with two shades of red. Flesh white, tender, juicy, pleasant subacid. Good. Core small. January to April.

SCOLLOP GILLIFLOWER.

Scolloped Gilliflower.

Striped Gilliflower ?

This, according to Elliott, is an entirely distinct variety from Red Gilliflower. Origin unknown.

Fruit medium to large, roundish conical, flattened at base, tapering towards the eye, always much ribbed or scolloped, light yellow, striped and splashed with shades of light and dark red. Stalk short, slender. Cavity deep, russeted. Calyx with long segments. Basin abrupt, deep, ribbed. Flesh yellowish, firm, tender, juicy, slight tinge of sweet. Core large, hollow. Good. November to February.

SCOTCH BRIDGET.

A cooking fruit, Lancaster, England.

Fruit medium, roundish oblate, ribbed or knobbed at apex. Flesh white, tender, soft, juicy. October, January. (Hogg.)

SCOTT'S BEST.

Origin, farm of Luther Scott, Hinsdale, Cattaraugus Co., N. Y. Tree moderately vigorous, spreading.

Fruit medium to large, roundish oblate, yellowish, shaded and mottled with light red, striped and splashed with crimson. Stalk variable, slender. Cavity slightly russeted. Calyx nearly closed. Flesh whitish, fine-grained, tender, juicy, agreeable, slightly aromatic, subacid. Good to very good. November, December.

SCRIVENER'S RED.

An admired cider fruit in some parts of Maryland and Delaware.

Fruit medium, roundish oblong conical, bright red, with dark stripes. Flesh juicy, breaking, rich. October.

SEACONK SWEET.

An old Connecticut Apple. Tree strong grower, very productive.

Fruit medium, roundish oblong conic, red, with stripes of darker red, few small white dots. Flesh white, compact, sweet. Good. January to April.

SEAMAN'S SWEET.

From Long Island.

Fruit medium, roundish oblate, whitish, splashed, striped, and shaded with red. Calyx closed. Stalk very short. Flesh white, not tender, juicy, sweet. Good. Baking. October.

SEAVER SWEET.

Grafton Sweet.

Origin unknown. Tree vigorous, productive, spreading. Young wood light reddish brown, slightly downy.

Fruit medium, roundish oblong conical, pale yellow, blush of red in the sun, few gray dots. Stalk medium, slender. Calyx closed. Flesh yellowish, moderately tender, juicy, sweet. Good. Core small. January to April.

SEEDLESS.

Origin in the grounds of Alfred Smith, Addison, Vt. Tree drooping habit, healthy and productive.

Fruit below medium, oblate roundish, light greenish yellow, with dark carmine cheek in sun. Stalk slender. Cavity open, deep. Calyx small, closed. Flesh white, dry, very mild subacid. Only good. Core without seeds. November, December.

SEEVER.

Seever's Red Streak.

From Coshocton Co., O.

Fruit medium, globular, lemon yellow, striped with bright clear red. Stalk short, slender. Calyx with long segments. Basin deep, open. Flesh yellowish, juicy, subacid. October to November. (Elliott.)

SELBY BELLFLOWER.

A seedling from the Yellow Bellflower. Tree hardy and productive.

Fruit large, roundish, approaching conic, pale yellow on rather a greenish ground. Stalk medium, slender. Calyx medium. Basin shallow. Flesh yellowish white, tender, juicy, mild, spicy, subacid. November to March. (Gar. Mon.)

SELMA.

From Clark Co., O.

Fruit medium to large, roundish flattened, yellow, with pale russet patches, especially around the stem, dull faint red in sun. Flesh yellowish white, breaking, mild subacid. Very good. November, December. (Elliott.)

SELWOOD'S REINETTE.

From Lancaster, England. Tree a healthy grower and a good bearer.

Fruit large, roundish oblate, greenish, mostly covered and striped with red. Flesh greenish white, tender, brisk, pleasant. Cooking. December, March. (Hogg.)

SEPTEMBER.

Pride of September.

Origin, Centre Co., Pa., received from W. G. Waring. Tree hardy and vigorous, a good and regular bearer. Young wood smooth, reddish brown. Buds prominent.

Fruit large, globular, somewhat depressed, very slightly conic, yellow, slightly shaded and thinly sprinkled with brown dots. Stalk short, inserted in a deep, abrupt cavity, surrounded by thin russet. Calyx partially closed, set in an open basin. Flesh yellowish, tender, juicy, very agreeable subacid. Very good. October.

SERGEANT'S SWEET.

Origin, Massachusetts.

Fruit medium, round, straw color, with a blush next the sun. Flesh tender, very sweet, superior for baking. October. (Kenrick.)

SHAKER GREENING.

Hampshire Greening?

Shaker Pippin.

Origin, Enfield, N. H. Tree vigorous, upright spreading, very productive.

Fruit medium, oblate conic, greenish yellow. Flesh yellowish, tender, crisp, juicy, brisk subacid. Good. March, November.

SHAKESPEARE.

An English dessert Apple, described by Hogg as of medium size, roundish oblate conic, greenish, with brownish red next the sun, few broken stripes of darker red, many russety dots. Flesh greenish yellow firm, crisp, juicy, brisk, vinous. December to April.

SHARPE'S GREENING.

Origin, North Carolina. Tree thrifty, and upright grower.

Fruit medium, oblate, greenish yellow, with a blush cheek. Flesh juicy, subacid. Good. January to March.

SHEEPNOSE.

There are several Apples to which this name has been applied : some are proved identical with well-known varieties ; others, of which no origin can be traced, may yet prove only synonyms of well-known kinds.

Warder describes a *Sheepnose* as :

Fruit medium, round, slightly conic, irregular, greenish yellow, white striæ about the base. Dots minute. Flesh yellowish white, breaking, tender, juicy, subacid. Good. December, February.

Another Sheepnose is grown in New Jersey and Pennsylvania, which is medium size, roundish conical, yellow, sometimes a blush in sun. Calyx closed. Flesh yellow, rather firm, juicy, subacid. Good. November, December.

SHELL.

Supposed origin, Virginia.

Fruit large, roundish, greenish yellow, becoming clear yellow in the sun. Flesh yellowish, juicy, rich. August. New.

SHEPHERD'S FAME.

Fruit large, roundish oblate, ribbed, pale yellow, streaked with a deeper shade and rich red. Flesh yellowish, soft, tender, sweet. October, March. (Hogg.)

SHEPPARD'S SWEET.

Origin, Windham Co., Conn. Tree thrifty, upright, and a great bearer.

Fruit medium, roundish, approaching conic, yellow, striped with red. Stalk long, slender, inserted in an acute cavity. Calyx firmly closed, set in a small basin. Flesh white, tender, sweet and pleasant. Good. October, November.

SHIAWASSEE BEAUTY.

Michigan Beauty.

Originated in Shiawassee Co., Mich. Tree a strong upright grower, until in full bearing, when it becomes partially pendent, very productive. Young wood dull reddish brown, slightly downy. This variety resembles Fameuse, but its wood shows its distinctiveness.

Fruit medium, oblate, whitish, shaded, marbled, splashed, and striped with rich red, few light dots. Stalk rather short. Cavity large. Calyx small, closed. Basin large, open, slightly corrugated. Flesh firm, very white, tender, juicy, brisk, refreshing subacid. Very good. October, January.

SHIPLEY GREEN.

Origin, Maryland.

Fruit medium, oblong, red, and very acid. Good for cooking and keeping only.

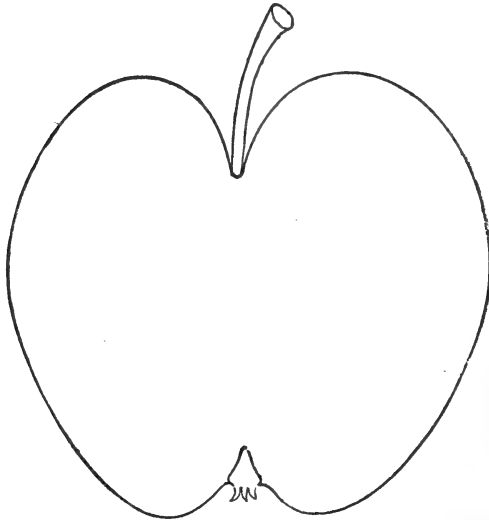
SHIPPEN'S RUSSET.

Originated in Philadelphia. It is often found at the West, and as a market sort profitable, but inferior in quality to the Roxbury Russet. The tree is very vigorous, forming a large round spreading head, productive.

Fruit large, oblate, irregular, yellowish green, somewhat russeted. Flesh greenish, rather dry, soft, mild subacid. Good. November, February.

SHOCKLEY.

Origin, Georgia. Tree moderately vigorous, upright, very productive, bearing young and regularly. Young wood reddish, grayish on under side.



Shockley.

Fruit below medium, roundish conical, pale yellow overspread with red, inconspicuous minute dots. Stalk long, slender, inserted in a deep

acute cavity. Calyx partially closed, set in a shallow corrugated basin. Flesh crisp, juicy, rich, saccharine, slightly vinous, and pleasant. Good. April, May.

This is one of the most profitable varieties at the South, where it not only bears abundantly, but keeps and sells remarkably well.

SIMPSON SWEET.

Origin, Mercer Co., Pa. Tree vigorous, upright.

Fruit medium, roundish oblong, flattened at base and crown, greenish yellow, with a tinge of brown in the sun. Calyx small, closed. Flesh white, moderately juicy, sweet, and pleasant. Good. Core small. December.

SINE-QUA-NON.

A native of Long Island, named by the late Wm. Prince.

Fruit roundish conical, about medium size, smooth, pale greenish yellow. Stalk slender. Flesh white, very tender, juicy, and of a delicate and very sprightly flavor. Good. The young trees are rather slow and crooked in growth. August.

SINK.

Origin, Boalsburg, Centre Co., Pa. Tree vigorous, upright spreading, productive.

Fruit medium, roundish, inclining to conic, whitish, splashed and marbled with red. Flesh very white, stained next the skin, tender, juicy, brisk subacid. Good. September.

SIR WILLIAM GIBBONS.

An English cooking Apple.

Fruit large, roundish oblate, ribbed, yellow, streaked with light and dark red. Flesh yellowish white, crisp, juicy, slightly acid. November, January.

SKUNK.

An old New Jersey Apple.

Fruit large, yellow, resembling Newtown Pippin, with red spots and blotches. Flesh yellowish, juicy, pleasant. Good. November, December. (Coxe.)

SLEEPING BEAUTY.

Winter Sleeping Beauty.

Sleeper.

Tree an excellent bearer.

Fruit medium, roundish, somewhat flattened, straw-color, washed with lively red. Flesh yellowish white, crisp, tender, juicy, acid. November, February. (Hogg.)

SLEIGHT'S LADY APPLE.

This valuable Apple was raised by Edgar Sleight, Dutchess Co., N. Y. It is almost a perfect fac-simile of Lady Apple, except being nearly twice as large. Tree somewhat more vigorous and spreading than the Lady Apple, and very productive. The fruit a little earlier in ripening.

SLINGERLAND PIPPIN.

Raised by Mr. Slingerland, of Albany Co., N. Y. Tree vigorous, spreading.

Fruit medium to large, roundish, often oblique, yellow, shaded with red and sprinkled with minute dots. Stalk short. Calyx small, partially closed. Flesh white, tender, juicy, brisk, rather rich subacid. Good to very good. December, February.

SMALLEY.

Spice.

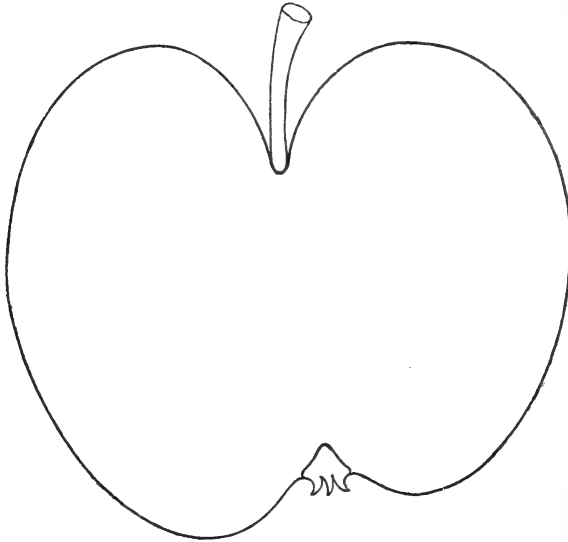
From Kensington, Conn. Tree vigorous, spreading, a good bearer.

Fruit medium size, oblate conic, yellow, with a slight blush. Stalk short. Calyx closed. Flesh tender, juicy, brisk, pleasant aromatic. Good. September, October.

SMALL'S ADMIRABLE.

This is described by Hogg as an immense bearer, and adapted for dwarf culture.

Fruit above medium, roundish ovate, flattened, lemon yellow. Flesh firm, yellowish, crisp, subacid. November, December.



• Smith's Cider.

SMITH'S CIDER.

Smith's.
Fuller.

Pennsylvania Cider.
Fowler.

Popular Bluff.

Origin, Bucks Co., Pa. This Apple is widely grown, and much esteemed as a profitable market sort. The tree is a very vigorous, strag-

gling, spreading grower, and productive. Young wood a rich dark brown.

Fruit medium to large, roundish oblate conic, yellow, shaded and striped with red, sparsely covered with gray dots. Stalk slender, of medium length, inserted in a deep, rather narrow cavity. Calyx closed, set in a broad, rather shallow basin. Flesh whitish, tender, juicy, crisp, pleasant, mild subacid. Good. December, March.

SMOKEHOUSE.

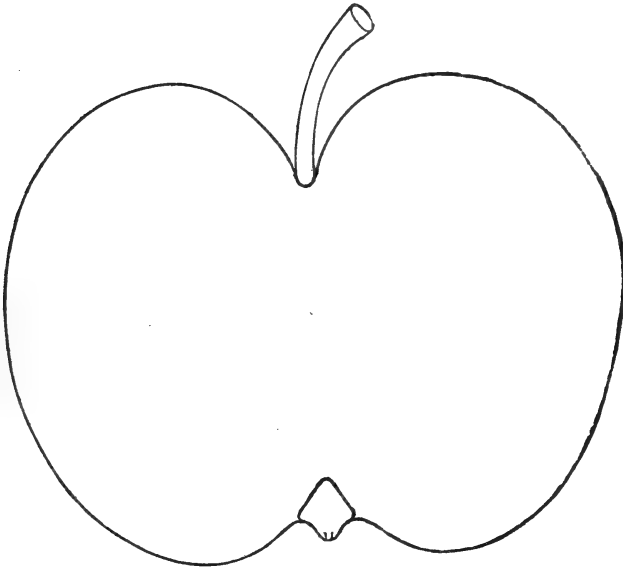
Millcreek Vandevere.

Red Vandevere.

English Vandevere.

Origin, Lancaster Co., Pa., near Millcreek, grew on the farm of ——— Gibbons, near his smokehouse, hence its name. An old variety and popular in Pennsylvania. It somewhat resembles the old Pennsylvania Vandevere, and is supposed to be a seedling of it.

Tree moderately vigorous, with a spreading head, a good bearer. Young wood dull dark reddish brown.



Smokehouse.

Fruit rather above medium, roundish oblate, skin yellow, shaded and splashed with crimson, and thinly sprinkled with large gray and brown dots. Stalk rather long, curved, inserted in a broad cavity. Calyx closed, set in a wide basin, of moderate depth, slightly corrugated. Flesh yellowish, somewhat firm, juicy, crisp, rather rich subacid. Good. September to February. Valued for culinary uses.

SNEDIKER.

Origin unknown. Tree an upright vigorous grower, productive.

Fruit large, roundish conical, sides unequal, yellow, marbled with large red dots, few gray dots. Stalk very short. Calyx closed or partially open. Basin slightly corrugated. Flesh yellowish, crisp, juicy, tender, brisk subacid. Core rather small. Good. December, February.

SNEPPS'.

Jno. Snepps'.

Supposed origin, Edinburgh, Ia. Tree vigorous and sufficiently productive.

Fruit above medium, almost large, flat, dull green, becoming pale yellow, with many dark dots that often give it a gray appearance. Calyx large, closed. Stalk stout. Flesh yellowish, breaking, fine-grained, juicy, agreeably sweet. December, March. (Warder.)

SOMERSET.

Origin, Somerset Co., Me. Tree very vigorous, upright spreading.

Fruit large, roundish, somewhat flattened, bright yellow, mostly covered with splashes and stripes of bright red. Flesh yellowish, sometimes a little stained with red, tender, juicy, agreeable subacid. September. (Me. Rep.)

There is another SOMERSET grown in Western New York, the fruit of which is medium or below, roundish conical, whitish yellow, partially netted with russet. Flesh yellow, tender. Good. August, September. The wood as well as fruit of these is quite distinct, the former being reddish brown, the latter dull grayish reddish brown, downy.

SOMMERSET LASTING.

A fine showy English Apple, described by Ronalds as large, roundish oblate, clear yellow, with a blush red cheek. Flesh white, tender, brisk, sharp subacid. Valuable for cooking or market. December to March.

SOPS OF WINE.

Red Shropsavine?
Bell's Early?

Worden's Pie Apple.
Washington.
Bennington.

Hominy.
Dodge's Early Red.

An old European variety. Tree vigorous, upright, an early and productive variety.

Fruit medium, roundish, yellow and red, splashed and shaded with deep red, and sprinkled with white and gray dots, and a thin bloom. Stalk slender, in a narrow cavity. Calyx closed. Basin rather shallow, uneven. Flesh white, often stained, not very juicy, mild, pleasant subacid. Good. August, September.

SOUISSON RUSSET.

Origin unknown.

Fruit medium, roundish conic, yellow, shaded with rich red or crimson in the sun, and splashes and blotches of russet in the shade, and sometimes russet mixed with the red. Flesh whitish, tender, juicy, rich, brisk subacid. Very good. Core small. February, March.

SOUR BOUGH.

An old variety, grown in Westchester Co., N. Y. Tree thrifty, upright.

Fruit medium, roundish conic, yellow, moderately sprinkled with gray and light dots. Flesh whitish, brisk subacid. Good for cooking. September. Often knotty and unprofitable.

SOUTHERN LADY.

From North Carolina.

Fruit small, oblate, whitish, much shaded with bright crimson, many light dots. Stalk short and small. Calyx closed. Flesh yellowish, tender, juicy, very mild subacid, aromatic. Very good. September, October.

SOVEREIGN.

A little Apple from England, described by Ronalds as :

Fruit small, oblong oblate, light yellowish brown, with a small flush of red. Flesh firm, rich, and sweet. February, April.

SPAFFORD RUSSET.

Origin, Ohio.

Fruit medium, roundish conical, flattened at ends, yellowish, slightly russeted. Flesh greenish white, soft, moderately juicy, mild subacid. Hardly good. December, February.

SPARK'S LATE.

Spark's.

A variety somewhat grown in Southern Illinois, its origin unknown. Tree an upright grower, hardy, and good bearer.

Fruit large, roundish oblong conic, greenish yellow, rarely with a shade of crimson in the sun, brown dots. Stalk slender. Calyx closed. Flesh whitish, half tender, pleasant, mild subacid. Good. Valuable for cooking.

SPECKLED.

Westbrook.

Origin uncertain. Tree a rapid grower and annual bearer.

Fruit large, roundish oblong, yellowish white, red in the sun, small russet dots. Flesh white, tender, subacid. Good. October, January.

SPECKLED OLEY.

From Berks Co., Pa.

Fruit medium, roundish, greenish yellow, striped and mottled with red, large white dots. Flesh white, moderately juicy. Hardly good.

SPECTATOR.

Originated by J. W. Bailey, Plattsburgh, N. Y. Tree spreading, very productive.

Fruit medium, roundish oblong oval, ribbed, yellow, shaded with red in the sun. Flesh white, tender, juicy, subacid. Hardly good. September.

SPICE RUSSET.

Sweet Russet of some, erroneously.

Origin unknown. Tree a good grower and productive.

Fruit below medium, roundish flattened, light yellow russet, with numerous small fine dots, exposed to the sun carmine and yellow bronzed. Stalk slender. Calyx closed. Flesh whitish, fine-grained, juicy, almost sweet, aromatic subacid. December to March. (Elliott.)

SPICE SWEET.

Berry Bough.

Tree vigorous, productive, medium, oblate, smooth, pale yellow. Flesh rather firm, sweet, highly aromatic, apt to be knotty and unfair. August, September.

SPONGE.

There are two varieties under this name, neither of which is at all valuable.

One is: Fruit large, roundish oblate. Skin greenish, striped with dull red, dotted with whitish spots. Flesh white, coarse, subacid. A kitchen fruit. October and November.

The other is: Fruit medium, oblong conic, green, splashed with red. Flesh white, moderately juicy. Poor. November.

SPRAGUE.

Fruit rather small, oblong oval, slightly conic, yellow. Flesh yellow, juicy, tender, sprightly subacid. Scarcely good. October.

SPRINGER.

Springer's Seedling.

Origin, Ohio.

Fruit small, roundish oblong, yellowish green, with faint stripes of red. Flesh firm, negative character. January to May. (Elliott.)

SPRING GROVE CODLIN.

An old English cooking Apple.

Fruit medium, roundish conical, greenish yellow, deeper in the sun. Flesh greenish yellow, crisp, juicy, brisk, sharp subacid. October.

SPRING PIPPIN.

Springport Pippin.

Origin, Springport, Cayuga Co., N. Y. Tree upright, thrifty, unproductive.

Fruit above medium, roundish oblong, yellowish green. Flesh yellowish white, crisp, sprightly subacid. December to May. (Elliott.)

SQUIRE'S GREENING.

An English culinary Apple.

Fruit described by Hogg as above medium, roundish, flattened, green, with dull brownish red in the sun. Flesh yellowish white, firm, brisk subacid. December to April.

STAATS' SWEET.

Originated in Somerset Co., N. J. Tree a strong, upright, vigorous grower, with curved erect branches, forming a beautiful head, productive.

Fruit medium, roundish, slightly conical, greenish yellow, shaded, splashed, and overspread mostly with light and dark red. Stalk short. Calyx large, open. Flesh yellowish white, breaking, juicy, mild, pleasant, sweet. Good to very good. December to February.

STACK.

Origin, Indiana.

Fruit medium to large, roundish conical, red, striped with deep red. Dots minute and few. Stalk long, slender. Calyx medium, closed. Basin medium. Flesh light yellow, fine-grained, juicy. Good. Core large, open. December to January. (Ind. Trans.)

STACKYARD.

Originated in Montgomery Co., Pa. An old variety.

Fruit medium, oblate, greenish yellow, covered and marbled with yellow and red, and speckled with small spots and patches of russet. Flesh white, crisp, tender, juicy. Good. November, December.

STAMFORD PIPPIN.

An English Apple, described by Hogg as first-rate for dessert.

Fruit above medium, roundish, yellow, tinge of orange in sun. Flesh yellowish, firm, tender, crisp, sweet, brisk, pleasant aroma. December to March.

STANARD.

Stanard's Seedling.

An Apple extensively disseminated in Illinois and West, from Colonel B. Hodge, through "The Grove" nurseries. The tree is extremely hardy, enduring uninjured the most severe changes of the prairies. It is a crooked, spreading, irregular, but rapid grower; a young, abundant, and annual bearer. Young wood reddish brown, downy.

Fruit medium to large, roundish oblate, slightly conical, dull green, changing to yellow at maturity, splashed and striped with red, large russet specks. Stalk in a deep cavity. Calyx closed. Flesh yellowish white, rather coarse, very juicy, rather rich subacid. Very good. December to March. Superior for cooking.

STANLEY.

Stanley's Seedling.

Originated in Alabama. Tree moderately vigorous, upright.

Fruit large, roundish conical, greenish yellow. Flesh whitish, tender, moderately juicy, subacid. Good. October, November.

STANLEY'S WINTER SWEET.

Origin, Winthrop, Me. Tree productive.

Fruit large, oblate, red, streaked and specked with purple. Flesh juicy, sweet. December to March. (Me. Rep.)

STANSILL.

Origin, North Carolina. Tree a good grower and early bearer.

Fruit medium, roundish oblate, yellowish green, sometimes a blush in sun, and occasionally indistinctly striped. Flesh yellow, subacid. Good to very good. January.

STAR.

An old variety, grown in Dutchess Co., N. Y.

Fruit medium, roundish oblate, yellowish, shaded and indistinctly splashed with crimson, large light dots. Stalk short. Calyx closed. Flesh white, pleasant, mild subacid. Good. November.

STARK.

Origin unknown, grown in some parts of Ohio, and valued as a long keeper and profitable market fruit. Tree vigorous, upright, spreading. Young shoots dark brownish red.

Fruit large, roundish, inclining to conic, sometimes a little elongated, and sometimes slightly oblique. Skin greenish yellow, shaded, splashed, and striped with light and dark red nearly over the whole surface, and thickly sprinkled with light and brown dots, a portion of them areole dots. Stalk short, rather stout, inserted in a medium cavity. Calyx closed. Basin rather large, slightly corrugated. Flesh yellowish, a little coarse, moderately juicy, mild subacid. Good. Core small. January to May.

STARR.

From New Jersey.

Fruit medium to large, roundish oblate, greenish white. Stalk slender. Flesh whitish, pleasant subacid. July to September. Cooking only.

STAR REINETTE.

Reinette Etoile.

Calville Etoile.

A Belgian Apple. Tree vigorous, productive.

Fruit medium, roundish, ribbed at apex end, washed and shaded with red, distinct white dots. Flesh white, tender, subacid. November. (Alb. Pom.)

STEEL'S SWEET.

Origin, Connecticut; productive, keeps well, but not always fair.

Fruit medium, globular, yellowish, slight blush. Flesh white, compact, juicy, with a peculiar saccharine flavor. December to March.

STEPHENSON'S WINTER.

Origin, Marshall Co., Miss. Tree a moderate grower and a good bearer. Young shoots smooth, reddish brown, slightly grayish.

Fruit medium, roundish oblate, greenish yellow, shaded and sometimes striped with red. Stalk long, slender. Calyx open. Flesh whitish, rather firm, juicy, pleasant, brisk subacid. Core small. Good. January to April.

STEVENS' GILLIFLOWER.

Originated in Sweden, Me. Fruit large, roundish conical, dull whitish ground striped with red. Flesh white, tender, pleasant subacid. November to February. (Cole.)

STILLMAN'S EARLY.

Origin, Clinton, Oneida Co., N. Y. Tree of moderate upright growth, productive.

Fruit small, roundish conic, yellow, sometimes a slight blush, and a few brown dots. Stalk long. Calyx closed. Flesh yellow, tender, pleasant subacid. Good. Last of July and first of August.

STILLWATER SWEET.

Grandmother.

Originated by Caleb Mendenhall, near Dayton, O. Tree an upright grower, productive. Young shoots clear reddish brown, very slightly downy.

Fruit medium, roundish, slightly conical, faintly ribbed, greenish yellow, shaded, minute black dots, sometimes in the sun it has a pale red cheek. Flesh yellowish white, fine-grained, tender, sweet. Good to very good. September, October.

STIRZAKER'S EARLY SQUARE.

A Lancaster, England, variety, described by Hogg as:

Fruit below medium, roundish, ribbed, pale yellow, overspread and mottled with a dingy brown russet. Flesh white, tender, pleasant. August, September.

STOCKADE SWEET.

Origin, Marietta, Ohio. Tree thrifty, very upright, and productive.

Fruit below medium, roundish oblate, yellow, shaded, splashed, and striped with red. Stalk slender. Calyx closed. Flesh whitish, compact, moderately juicy, rich, sweet. Core small. Good. Valuable for baking and keeping. December to May.

STONE PIPPIN.

White Stone Pippin.

A Norfolk, England, Apple, described by Lindley as worthy of cultivation. Tree vigorous, hardy, and abundant bearer.

Fruit medium, oblong conic, pale green, becoming yellow. Flesh very firm, almost sweet. November to May.

STONEWALL JACKSON.

A new Southern Apple, mostly valued because of its long-keeping quality. Tree an upright, stout grower, productive.

Fruit medium, roundish conical, sides unequal, whitish yellow, shaded, and obscurely striped and splashed in the sun with light red. Stalk small. Flesh white, firm, not very juicy, brisk subacid. Good. A long keeper.

STONOR PARK.

An English dessert Apple, described by Ronalds as of medium size, conical, yellow, with faint stripes and shades of red. Flesh white, tender, brisk subacid. Good. November.

STRAUDT.

Origin, Berks Co., Pa.

Fruit large, roundish, inclining to conical, deep crimson, with stripes of paler red, and numerous light dots. Stalk short. Calyx small, closed. Flesh fine-grained, tender, white, subacid, pleasant. Good. November.

STRAWN.

Strawn's Seedling.

Raised by James Strawn, Virginia. Tree a thrifty grower and good bearer.

Fruit rather large, reddish stripes on a pale yellow ground, cream-colored spots. Flesh yellow, juicy, slightly acid. Good. December to April.

STREAKED PIPPIN.

Red Pippin.

Hempstead.
Skunk, erroneously.

Quaker of some.

Origin, Westbury, Long Island, N. Y. Tree thrifty, hardy, vigorous, spreading, and productive.

Fruit large, roundish oblong, pale yellow, shaded, splashed, and striped with rich red, few light and gray dots. Stalk short, small. Cavity narrow, sometimes russeted. Calyx closed. Basin slightly corrugated. Flesh yellow, a little coarse, tender, juicy, pleasant subacid, slightly aromatic. Good to very good. November to January.

STRIPED BEAUFIN.

An English Apple. Tree hardy, productive.

Fruit large, roundish oblate, broadly ribbed, greenish yellow, covered

and mottled with broken stripes and dashes of deep red. Flesh yellowish white, firm, juicy, pleasant acid. October to May. (Lindley.)

STRIPED BELLE ET BONNE.

An old Eastern Apple. Origin unknown. Tree vigorous, upright spreading, productive. Young shoots dull reddish brown, somewhat downy. A profitable market variety.

Fruit large, roundish oblate, whitish yellow, mostly covered, striped, splashed, and mottled with light and dark red, few light brown dots. Stalk short. Calyx closed. Flesh white, crisp, brisk subacid, moderately juicy. Good. Core rather small. August, September.

STRIPED HOLLAND PIPPIN.

An old Holland fruit. Tree a free grower, and productive; valued mainly for cooking.

Fruit large, roundish, obscurely ribbed, yellow, striped with red. Flesh white, subacid. October, December. (Lindley.)

STRIPED MOHAWK.

Fruit above medium, roundish, red striped on yellow. Flesh dry, poor. Late autumn. (Elliott.)

STRIPED MONSTROUS REINETTE.

An English cooking Apple. Tree a strong grower, productive.

Fruit large, roundish, with irregular ribs, terminating in strong wrinkles around the eye, greenish yellow, mostly covered, striped, and blotched with red. Stalk small. Flesh tender, juicy, agreeable acid. October, November. (Ronalds.)

STRIPED PORTER.

Fruit large, roundish oblong conical, yellow, with stripes and splashes of red, red and russet specks. Stalk slender. Cavity deep, russeted. Basin wrinkled. Flesh white, crisp, juicy, subacid. October. (N. E. Far.)

STRIPED SHROPSAVINE.

Curtiss Early Stripe.

Fruit small, oblong conic, pale yellow, striped with bright red. Flesh crisp, pleasant. July, August. A poor grower.

STRIPED WINTER PEARMAIN.

Striped Sweet Pippin.

Snorter.

Winter Pearmain of some.

Missourian?

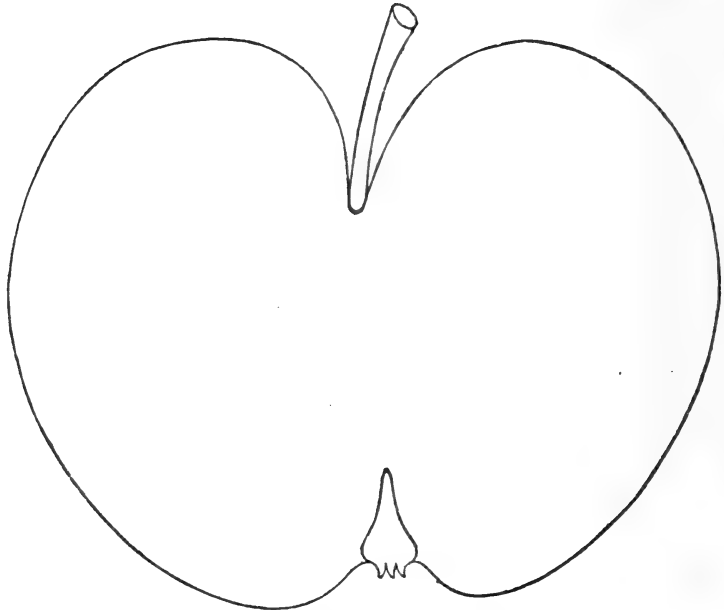
Large Striped Winter Pearmain.

Striped Pearmain.

Missouri Keeper?

An old variety, which can only be traced to Kentucky. It is considerably grown now all through the West, and largely under the name of Striped Sweet Pippin. Tree hardy, vigorous, spreading, productive. Young shoots clear reddish brown, slight bloom on ends.

Fruit medium to large, roundish, inclining to oblate, yellow, striped, splashed, and shaded with shades of red, numerous gray dots, giving it somewhat appearance of bloom. Stalk medium or short, and small, in-



Striped Winter Pearmain.

serted in a large cavity surrounded by russet. Calyx small, closed, set in a broad, uneven basin. Flesh yellow, juicy, crisp, tender, very mild, rich, pleasant, scarcely subacid. Very good. October to January.

STROAT.

Straat.

An Apple formerly in high esteem among the descendants of the Dutch settlers on the North River. Not profitable.

Fruit above the middle size, roundish, and tapering a little to the eye, yellowish green. Flesh yellow, very tender, brisk subacid. Good. September to December.

STRODE'S BIRMINGHAM.

Strode's.

Origin, Chester Co., Pa. A vigorous, upright grower, very productive.

Fruit rather below medium, oblong oval or conic, yellow, sprinkled with a few gray dots. Stalk slender, set in a deep, narrow cavity. Basin broad, shallow, corrugated. Flesh yellow, moderately juicy, subacid. Good to very good. September.

STRUBEL.

Origin, Pennsylvania. Tree a moderate grower, hardy, and productive.

Fruit medium to large, roundish oblong conic, yellowish, shaded, splashed, and marbled with rich red. Stalk short. Calyx closed. Flesh compact, yellowish, juicy, subacid, slightly aromatic. Good. Core small. November to March.

STUMP.

Supposed origin, Delaware. Tree spreading, productive.

Fruit medium, oblate, yellowish, shaded with light red nearly over the whole surface. Stalk short, small. Calyx closed or partially open. Flesh whitish, rather firm, crisp, juicy, tender, sprightly subacid. Good. Core small. September, October.

STURMER PIPPIN.

An English fruit. Below medium, oblate, approaching conic, yellow, with a bronzed or crimson cheek. Stalk of medium length, inserted in a large cavity. Calyx closed. Segments long. Basin shallow and uneven. Flesh compact, rich subacid. Good. January, May.

STYMUS.

This new and really excellent Apple originated on the farm of Jacob Stymus, Dobb's Ferry, N. Y. Tree moderately thrifty, upright, and productive. Young shoots dull reddish brown, slightly downy.

Fruit medium, oblate, inclining to conic, yellowish, shaded, splashed, and striped with light and dark crimson. Stalk short, small. Cavity large, deep. Calyx closed or partially open. Segments short, erect. Basin large, deep, uneven. Flesh whitish, fine, tender, juicy, mild, pleasant subacid, slightly aromatic. Core small. Very good. October, November.

STYRE.

Forest Styre.

A famous old English cider fruit, of medium size, roundish, pale yellow, with an orange cheek. Flesh firm, and makes a high-colored liquor. October, January.

SUDBURY SWEET.

Origin unknown. Tree vigorous, upright, a good bearer.

Fruit medium, roundish, inclining to conic, yellow, faintly splashed, marbled, and striped with dull red, many light and gray dots. Flesh whitish, rather tender, moderately juicy, rather rich, sweet. Good. December, January.

SUFFOLK BEAUTY.

A new variety from H. H. & E. L. Brown, Deer Park, Long Island. Tree a free grower and abundant bearer.

Fruit medium, roundish oblate, yellowish white, with a few dark green dots, and a little russet near the stalk. Stalk slender. Calyx

small. Flesh white, agreeable subacid. August, September. (Gar. Mon.)

SUGAR AND BRANDY.

A Lancashire, England, Apple.

Fruit medium, roundish, slightly conical, rib on one side, deep dull yellow, pale red in the shade, bright orange red in the sun. Flesh deep yellow, spongy, juicy, very sweet. August, September. (Hogg.)

SUGAR LOAF PIPPIN.

Hutching's Seedling.

A foreign sort. Tree of good growth and productive.

Fruit of medium size, oblong or conical, smooth, clear pale yellow, becoming nearly white on one side when fully ripe. Flesh white, firm, very slightly acid, and moderately juicy. Good. Ripens the latter part of July, and is very showy on the tree.

SUGAR SWEET.

From Massachusetts. Tree vigorous, upright, a moderate bearer.

Fruit large, roundish oblate conic, yellow, mostly shaded with red, and a dark maroon cheek. Flesh white, fine-grained, not very tender, but with a rich, honeyed sweetness. Good. December to February.

SUISSE.

Pomme Suisse.

Pomme Rubanee.

Pomme de Perroquet.

An old variety, described in 1665.

Fruit medium to large, roundish, slightly conical, greenish, and striped in the shade with yellowish green, which in sun becomes dull reddish. Stalk slender. Calyx small. Flesh white, tender, moderately juicy, subacid. Good.

SUMMER BELLFLOWER.

Origin, farm of J. R. Comstock, Dutchess Co., N. Y. Tree vigorous, upright, productive. Young shoots clear reddish brown.

Fruit medium or above, oval, inclining to conic, clear yellow, with rarely a faint orange blush on the side of the sun. Stalk an inch long, in a shallow cavity. Calyx closed, with small reflexed segments, slightly five-sided basin. Flesh white, fine-grained, tender, excellent subacid. Good. Middle of August to middle of September.

SUMMER BELLFLOWER OF PENNSYLVANIA

is quite distinct from the above, and very much resembles Yellow Bellflower in shape and color, but has a very wide and deep cavity, and closed calyx. Flesh yellowish white, firm and fine texture, not very juicy, with a brisk, agreeable, pleasant subacid. Good. Last of August and first of September. Young shoots light reddish brown, downy.

SUMMER BROADEN.

Summer Colman. Summer Broadend.

An old Norfolk, England, cooking Apple.

Fruit above medium, roundish oblate, dull greenish yellow, tinged on the sunny side with dull pale brown. Flesh greenish white, subacid. October, November. (Lindley.)

SUMMER CHEESE.

Cheese Apple. Maryland Cheese. Prather Apple. Findlay Apple.

An old variety, of poor quality. Origin unknown. Tree a strong grower, spreading, not an early bearer, but moderately productive when old.

Fruit medium, oblate, sides sometimes unequal, yellow, occasionally with a tinge of red in the sun. Flesh whitish, tender, juicy, subacid. August, September.

SUMMER GOLDEN PIPPIN.

A nice little English dessert Apple, but inferior to many of our own.

Fruit small, ovate, flattened at the eye, bright yellow, with a little orange next the sun. Flesh yellow, firm, crisp, and rich. Good to very good. August.

SUMMER HAGLOE.

Hagloe.

An old sort. Tree vigorous, but slow in its growth while young, thick blunt shoots, productive. Young shoots clear light reddish brown.

Fruit large, roundish oblate, whitish yellow, striped and splashed with bright red, and covered with a thin bloom. Stalk short and thick, inserted in a broad, open cavity. Calyx closed, set in a small, round basin. Flesh white, rather coarse, tender, juicy, subacid. Good to very good. An excellent culinary and table variety. August, September.

SUMMER HARVEY.

Origin unknown. Tree thrifty, spreading, very productive, an early and abundant bearer.

Fruit large, roundish oblate, greenish yellow, sometimes nettings of russet and red cheek in the sun, thickly sprinkled with light and green dots. Flesh whitish, tender, juicy, brisk subacid. Good. August.

SUMMER JANET.

Fruit medium, round truncated, regular. Surface smooth, pale yellow, mixed red, striped darker red. Dots scattered, gray. Flesh yellow, tender, fine-grained, subacid, aromatic. Good. September. (Warder.)

SUMMER LIMBERTWIG.

A Southern fruit from Greensboro', N. C.

Fruit medium, flat, regular, pale yellow, mixed pink, striped dark red.

Flesh white, tender, fine-grained, juicy, subacid, aromatic. August, September. (Warder.)

SUMMER MARIGOLD.

An old English Apple. Tree a good grower and great bearer.

Fruit medium, roundish conical, yellow, striped with two shades of red. Flesh breaking, juicy, pleasant subacid. August.

SUMMER PIPPIN.

Sour Bough.

Walworth.

Haverstraw Pippin.

Paper Apple.

Calkin's Pippin.

Tart Bough.

Champlain.

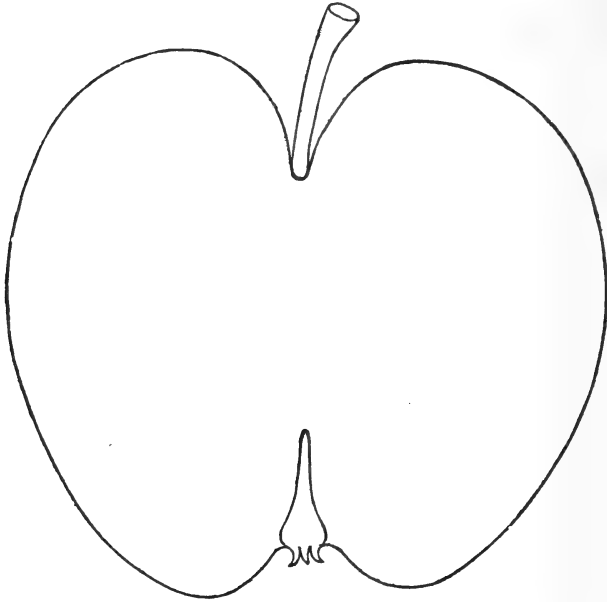
Large Golden Pippin.

Underdunk.

Nyack Pippin.

Geneva Pearmain.

Origin unknown. An old fruit, much cultivated in Rockland and Westchester Counties, N. Y.; a valuable market fruit. Tree vigorous, forming a beautiful round head, a regular and good bearer. Young shoots dull reddish grayish brown, slightly downy.



Summer Pippin.

Fruit medium to large, variable in form, generally roundish oblong, inclining to conic, pale waxen yellow, shaded with a delicate crimson blush, and sprinkled with green and grayish dots. Stalk varies in length and thickness, inserted in a deep, abrupt cavity. Calyx closed, set in a deep, abrupt, corrugated basin. Flesh white, tender, moderately juicy, pleasant, refreshing, subacid, valuable for culinary uses, and

profitable for market. Ripens the middle of August, and continues a month or more.

There is another SUMMER PIPPIN which we have received from Iowa. Tree very vigorous, productive.

The fruit is medium, oblate, inclining to conic, yellowish, shaded, splashed, and striped with crimson in the sun, large light dots. Stalk rather long. Calyx closed. Flesh white, pleasant subacid. August, September.

SUMMER POUND ROYAL.

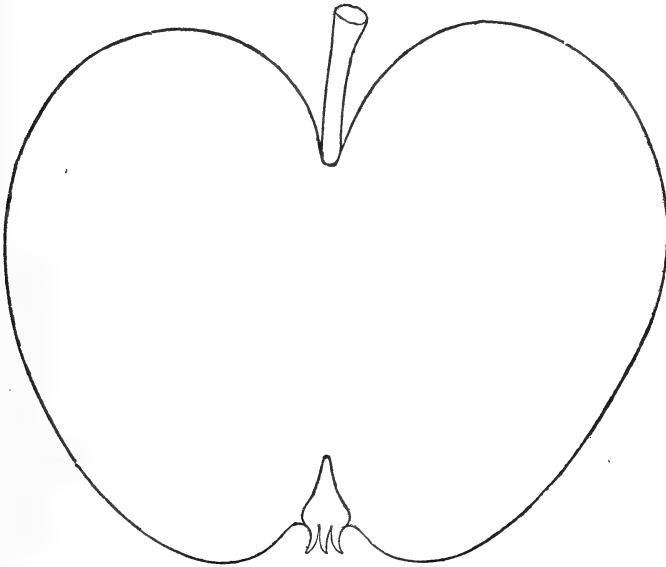
Pound Royale.

Summer R. I. Greening.

Pound Royal of the Putnam List.

Orange.

An old variety, the origin of which has not been traced. It is now pretty widely disseminated in some parts of Michigan, Ohio, and in the South and West. Tree a strong, vigorous, upright spreading grower, hardy and productive. Young shoots very dark brown.



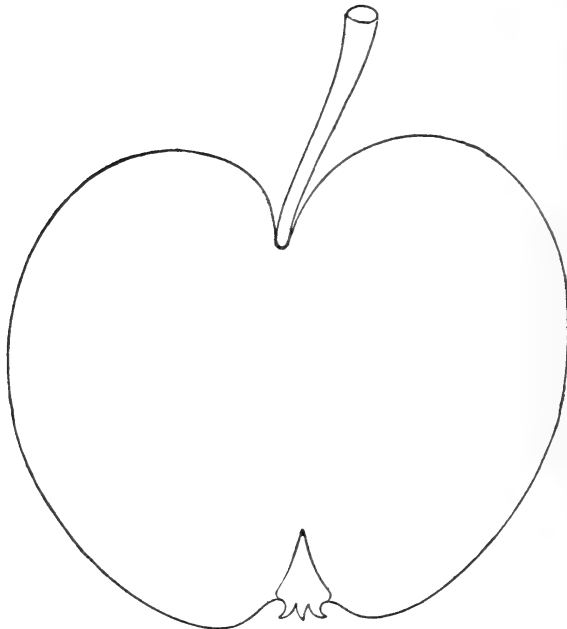
Summer Pound Royal.

Fruit large, roundish conical, sometimes roundish oblate conical, greenish white, and moderately sprinkled with green and light dots. Stalk rather short. Cavity large, deep, slightly russeted. Calyx closed. Segments medium, erect. Basin abrupt, rather deep. Flesh white, fine-grained, tender, juicy, mild, sprightly subacid. Good to very good. Core small. August, September. A profitable orchard and market variety.

SUMMER QUEEN.

Sharpe's Early. Lancaster Queen. Polecat.

This variety forms a large tree with somewhat pendent boughs, and is a profitable sort for orchards and marketing over a large territory.



Summer Queen.

The fruit is large and broad at the crown, tapering towards the eye. The stalk is rather long, and is planted in a pretty deep cavity, sometimes partially closed. Calyx but little sunk, in a narrow plaited basin. Skin fine deep yellow in its ground, though well striped and clouded with red. Flesh aromatic, yellow, rich, and of good flavor. August and September.

SUMMER RAMBO.

Rambour Franc. Rambour Gros. Frank Rambour.
 Summer Rambour. Rambour d'Été.

This is an old French Apple which was pretty freely distributed many years since, and the old trees of which everywhere prove hardy and profitable for early marketing. Tree vigorous, spreading, open round head.

Fruit a little above medium size, flat, generally evenly formed, but occasionally a little irregular, pale greenish yellow, stained and streaked with red on the sunny side. Flesh rather soft, sprightly subacid. Good. Ripens early in September.

SUMMER RED CALVILLE.

Calville Rouge d'Été. Calville d'Été. Madeleine.
Rother Sommercalville.

An old French Apple of medium size, roundish conical, ribbed, yellowish white, streaked and stained with red, becoming very bright in the sun. Flesh white, soft, tender, tinged with red, mild subacid. Good. July, August.

SUMMER RED STREAK.

Origin, Columbia Co., N. Y. Tree moderately vigorous, productive.

Fruit medium, roundish oblate conical, yellowish, shaded, splashed, and striped with rich red. Stalk small. Calyx closed. Flesh white, sometimes a little stained next the skin, juicy, brisk subacid. Good. Valued for cooking. September.

SUMMER REINETTE.

Weisse Wack's Reinette. Weisse Sommer Reinette. Reinette d'Été Blanche.

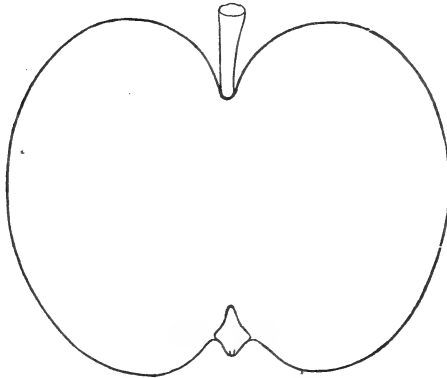
A beautiful German Apple.

Fruit very large, roundish oblate. Skin oily. Color clear yellow, faintly washed with clear bright red. Calyx half open. Stalk very short. Cavity russeted. Flesh white, fine, juicy, vinous, sweet, aromatic. September, October. (Diel.)

SUMMER ROSE.

Woolman's Harvest. Lippincott's Early.

A very pretty and very excellent Apple, highly esteemed as a desert fruit. Tree moderately vigorous, productive.



Summer Rose.

Fruit scarcely of medium size, roundish, smooth, rich waxy yellow, streaked and blotched with a little red on the sunny side. Stalk

rather short and slender. Calyx closed, set in an even basin. Flesh tender, abounding with sprightly juice. Very good or best. Ripens early in August.

SUMMER SWEET.

An old Connecticut Apple. Tree vigorous, very spreading, and productive.

Fruit medium, oblate, inclining to conic, yellowish, netted with russet. Stalk short and small. Calyx closed. Flesh whitish, crisp, tender, moderately juicy, rich, sweet. Excellent for baking. Core small. September.

SUMMER SWEET PARADISE.

Originated in Pennsylvania. Tree very vigorous, spreading, productive.

Fruit quite large, round and regular in its form, a little flattened at both ends. Skin rather thick, pale green, sometimes faintly tinged with yellow in the sun, and very distinctly marked with numerous large dark gray dots. Stalk strong, and set in an even, moderately deep hollow. Flesh tender, crisp, very juicy, sweet, rich, aromatic. Good to very good. Ripe in August and September.

SUMMER THORLE.

Thorie. Thoral Pippin. Whorle Pippin. Watson's New Nonsuch.

A favorite Scotch Apple. Tree a free grower, rather pendent, very productive, bearing in clusters.

Fruit small, oblate, rich yellow, with mottled stripes of rich red. Stalk short. Calyx half open. Flesh yellowish white, firm, crisp, juicy, brisk subacid. August, September. (Ron.)

SUMMER WHITE CALVILLE.

Calville Blanche d'Été.
Calville Blanc.

White Calville.
Wahrer Weiser Sommercalville.

An old variety. Tree a strong grower and productive.

Fruit medium, roundish oblate, with prominent ribs, pale straw color, with traces of delicate russet in the sun. Flesh white, tender, delicate, sweet, and pleasant. August, September. (Hogg.)

SUPERB.

Origin, Franklin Co., N. C. Tree tolerably vigorous, spreading, and a prodigious bearer.

Fruit medium or above, roundish oblate, regular. Skin green, rarely with a blush. Stalk of medium length, in a shallow cavity. Calyx large and open. Flesh yellow, solid, slightly coarse-grained, rich, subacid. Good to very good. November to March.

SUPERB SWEET.

Raised by Jacob Deane, Mansfield, Mass. Tree vigorous, productive.

Fruit rather large, roundish, inclining to conic, pale yellow, shaded, splashed and mottled with red. Stalk long, inserted in a deep cavity. Calyx large, open. Basin broad. Flesh white, very tender, juicy, sweet, rich. Core large. Good to very good. September, October.

SURPRISE.

A small, round, whitish yellow Apple, of little or no value, but admired by some for its singularity, the flesh being stained with red. November to January.

SURREY FLAT CAP.

Hogg describes this as a very excellent dessert Apple.

Fruit above medium, roundish oblate, pale bluish green, rough veiny russet, and deep red next the sun. Flesh yellow, firm, rich, and sugary. October, January.

SUSANNAH.

Large, oblong oval, greenish yellow. Flesh crisp, rich, aromatic. November to April. (Sumner MS.)

SUSAN'S SPICE.

Originated in Franklin Co., Pa. Tree moderately vigorous, upright.

Fruit medium, compressed, glossy light crimson, deeper in the sun, with fawn-colored dots. Stalk short. Flesh yellowish white, stained occasionally with red, juicy, pleasant, aromatic. October. (Gar. Mon.)

SUTTON BEAUTY.

Beauty.

Origin, Sutton, Mass. Tree upright, thrifty, and very productive.

Fruit medium or above, roundish oblate conic, waxen yellow, shaded, mottled, and obscurely striped with fine crimson, and thinly sprinkled with whitish dots. Stem rather short, inserted in a medium cavity, slightly surrounded by greenish russet. Calyx partially closed, set in a moderate, uneven basin. Flesh whitish, crisp, tender, juicy, sprightly subacid. Very good. November, February.

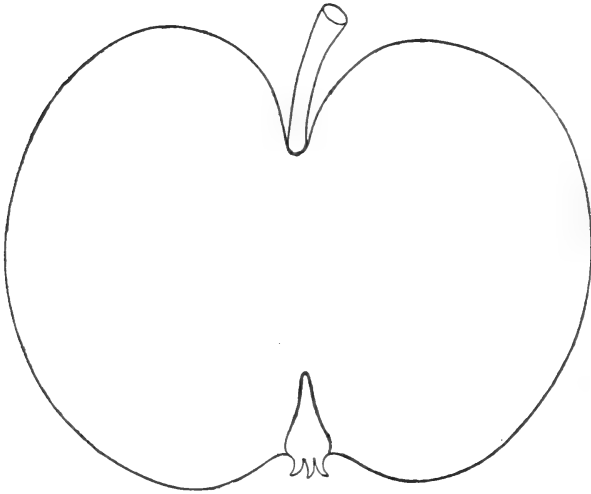
SWAAR.

Hardwick.

This is a truly noble American fruit, produced by the Dutch settlers on the Hudson, near Esopus, and so termed from its unusual weight, this word, in the Low Dutch, meaning *heavy*. It requires a deep, rich, sandy loam to bring it to perfection, and, in its native soils, we have seen it twelve inches in circumference, and of a deep golden yellow color. It is one of the finest flavored apples in America, and deserves extensive cultivation in all favorable positions, though it does not succeed well in damp or cold soils.

Fruit large, regularly formed, roundish or roundish oblate. Skin greenish yellow when first gathered, but when entirely ripe of a fine,

dead gold color, dotted with numerous distinct brown specks, and sometimes faintly marbled with gray russet on the side and round the stalk. Stalk slender, three-fourths of an inch long, inserted in a very round cavity. [Sometimes this cavity is partially closed.] Calyx small, greenish,



Swaar.

set in a shallow basin, scarcely plaited. Flesh yellowish, fine-grained, tender, with an exceedingly rich aromatic flavor and a spicy smell. Very good to best. Core small. The trees bear fair crops, and the fruit is in season from December to March.

SWASEY.

Supposed origin, Ohio. Tree hardy, but a poor grower.

Fruit small, oblate, yellow, with a red cheek in the sun. Flesh whitish, crisp, tender, subacid. Good. Core small. December, January.

SWEENEY NONPAREIL.

An English Apple. Tree a good grower and bearer.

Fruit above medium, roundish conical, greenish, with patches of russet and brilliant red cheek in sun. Flesh firm, crisp, juicy, acid. January to April. Cooking.

SWEET AND SOUR.

Origin unknown. Tree vigorous, spreading, productive.

Fruit large, oblate, ribbed, the ribs being green, and the intervening hollows light yellow; the ribs bearing the flavor of the fruit, which is acid, the intervening hollows being almost flavorless, but sweetish; this portion not having its juice well elaborated. December, February.

SWEET BALDWIN.

Origin unknown. Tree very vigorous, upright spreading, productive.

Fruit medium, roundish oblate, yellowish, shaded, splashed, and striped with light and dark red, thin bloom, light dots. Flesh yellowish, moderately juicy, mild, sweet. Good. October.

SWEET BELLE BONNE.

Belle et Bonne.

A very old Apple. Origin unknown. Tree a spreading, moderately upright grower, and an annual bearer. Young shoots reddish brown, somewhat grayish, slightly downy.

Fruit medium to large, roundish oblate conic, yellow, with nettings and patches of russet, few large brown dots. Calyx small, closed. Flesh yellow, moderately juicy, rich, sweet. Good. October, December.

SWEET BELLFLOWER.

Sweet Butter?

Butter of some.

Of unknown origin. Tree vigorous, spreading.

Fruit above medium, roundish oblate, slightly ribbed, greenish yellow, with a few brown dots, slight blush in the sun. Stalk rather long, slender. Calyx closed. Flesh yellowish white, tender, aromatic, sweet. Good. October, November.

SWEET BELLFLOWER OF WYANDOT COUNTY.

The origin of this Apple is unknown, but as Elliott has first described it as of Wyandot County, we follow him until its history is disclosed. The variety is a profitable market sort. Tree a good grower, somewhat drooping in fruit. Young wood reddish brown.

Fruit rather large, roundish oblong conic, rough greenish yellow, netted and patched with russet. Stalk rather short. Calyx closed. Flesh yellowish, moderately juicy, half tender, sweet. Good. October, November.

SWEET DOCTOR.

From Pennsylvania. Tree vigorous, upright spreading.

Fruit medium, roundish oblate, yellowish, shaded, splashed, and striped with light and dark red. Stalk slender. Calyx closed. Flesh white, tender, juicy, rich, sweet. Good. Core small. October.

SWEET FALL PIPPIN.

Grown in Westchester Co., N. Y. Tree vigorous, productive.

Fruit large, oblate, greenish yellow, slightly sprinkled with brown dots. Stalk short, in a large cavity. Calyx closed, in a very shallow basin. Flesh juicy, sweet, and rich. Good. October, November.

SWEET GREENING.

Origin unknown. Tree vigorous, spreading, productive.

Fruit large, roundish oblate, greenish yellow, with dull bronzed red

in the sun, many irregular scattered rough dots and marblings of russet. Stalk medium. Cavity broad, acute, regular. Calyx in a broad, deep, slightly furrowed basin. Flesh white, loose-grained, mild, sweet, rather dry. Good. Core small. December to February.

SWEET JANET.

Origin, Indiana. Tree healthy, vigorous, spreading, annually productive.

Fruit large, round, somewhat conical, covered with rich red or crimson, mixed and striped. Stalk short. Calyx small, closed. Flesh yellow, breaking, not juicy, sweet. Good. December, January. Fine for baking, and the tree claimed to bloom late in season and thus escape frosts. (O. P. S.)

SWEET KING.

Origin, Oyster Bay, Long Island. Tree a stout, erect grower, an early and abundant bearer. Young wood reddish brown, slightly grayish.

Fruit medium, roundish conic, yellowish, shaded, striped, and splashed with red, few light gray dots. Stalk varying. Calyx large, open. Flesh white, tender, juicy, sweet. Good to very good. October to March.

SWEET MARY.

Originated with J. W. Dodge, Pomona, Tenn. Tree a vigorous, upright grower, and a great bearer. Young shoots dull grayish brown.

Fruit above medium, roundish conical, whitish yellow, very smooth, sprinkled with a few light brown dots. Stalk very short. Calyx closed. Flesh yellowish white, tender, juicy, sweet. August, September.

SWEET PEAR.

Origin unknown. Tree a vigorous, upright grower, very hardy and productive.

Fruit medium, roundish conical, pale yellow, with dull blush red in the sun. Stalk short. Calyx closed. Flesh white, tender, juicy, sweet, aromatic. Very good. September, October.

SWEET PEARMAIN.

An old variety, of unknown origin. Tree a strong, upright grower, and good bearer.

Fruit medium, roundish, slightly conic. Stalk short. Cavity broad, deep. Calyx small, closed. Basin shallow. Flesh whitish, juicy, tender, brisk, rich, sweet, aromatic. Very good. January to April.

SWEET PIPPIN.

An old variety. Tree productive.

Fruit medium, roundish oblate or oblate, yellowish, with red in the sun. Stalk short. Flesh firm, moderately juicy, sweet. Good. November, December.

SWEET QUEEN.

Dale's Sweet Fall Queen.

Origin, Pennsylvania. Tree a fair grower, and productive.

Fruit large, elongated conic, ribbed at apex, whitish, shaded, striped, and splashed with shades of red. Flesh white, tender, pleasant, sweet. Scarcely good. November.

SWEET RAMBO.

Origin, supposed Pennsylvania. Tree stout, upright, vigorous, not an early bearer.

Fruit medium, roundish oblate, yellow, mostly shaded with red, and thickly covered with large gray dots, a little elevated above the surface. Stalk slender, inserted in a deep cavity, surrounded by russet. Calyx closed, set in an open basin. Flesh whitish, juicy, pleasant sweet. Core small and close. Good to very good. October to December.

SWEET RIBBED GILLIFLOWER.

An old Connecticut variety.

Fruit large, roundish elongated conic, ribbed, mostly covered with light red, striped and splashed with dark. Stalk short. Calyx closed. Flesh white, rather compact, moderately juicy, half tender, sweet. Good. Core large. November, December.

SWEET ROMANITE.

Red Winter Sweet? Sweet Nonsuch.

Origin unknown. Tree a strong, upright grower, hardy, moderate bearer.

Fruit medium, roundish oblate, greenish yellow, shaded, splashed, and striped with red, light dots. Stalk short, slender. Calyx closed. Segments erect, slightly recurved. Basin corrugated. Flesh yellowish white, compact, tender, juicy, rich, sweet. Good to very good. Core small. November to March.

SWEET RUSSET.

Summer Russet.

Received from Parsons & Co., Flushing, Long Island. Origin unknown. A nice little Apple. Tree moderately vigorous, productive. Young wood reddish olive.

Fruit small, roundish, inclining to conic, sometimes oblate, yellow, mostly covered with light russet, and sprinkled with brown russet dots, tinge of red in the sun. Stalk slender. Calyx closed. Flesh whitish, crisp, very tender, juicy, rich, sweet, aromatic. Very good. September.

Another SWEET RUSSET is grown in Massachusetts, New York, and elsewhere. The tree an upright, spreading grower, productive. Good for cooking.

Fruit medium, oblate, yellow, mostly covered with nettings and patches of russet. Flesh whitish, half tender, rich, sweet. Good. November, March.

Another SWEET RUSSET of Kentucky, is described by Warder as :

Fruit small, conical, truncated, rough, dark russet. Dots minute, white, prominent. Flesh yellowish white, fine-grained, not tender, sweet. Scarcely good. December, February.

SWEET SEEK-NO-FARTHER.

Origin, Hanover, N. H. Tree a good grower, an early and abundant bearer.

Fruit above medium, roundish conical, yellowish green, with a red cheek next the sun. Flesh firm, juicy, sweet. Good. A long keeper.

SWEET SPONGE.

Origin unknown.

Fruit medium, oblate, yellowish white. Flesh white, tender, sweet. July. (Warder.)

SWEET WILLIE.

Origin, Todd Co., Ky. Tree a good grower, and productive.

Fruit large, greenish, mostly covered with stripes of red. Flesh fine-grained, tender, juicy, rich, sweet. Good to very good. November, December.

SWEET WINESAP.

Henrick Sweet?	Henry Sweet.	Ladies Sweet, of some.
Sweet Pearmain, of some.		Red Sweet Winesap.

From Pennsylvania. Tree of moderate, upright growth, productive.

Fruit medium, oblate, slightly approaching conic. Color red, splashed with deep crimson. Stalk long and slender, inserted in a deep cavity, surrounded with russet. Calyx partially open, set in a rather deep, open basin. Flesh tender, juicy, very sweet, rich. Good to very good. November to March.

SWEET VANDERVERE.

Sweet Redstreak.	Sweet Harvey.
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Origin unknown. Tree of crooked growth, a profuse bearer.

Fruit medium, roundish oblate, yellow, shaded and striped with dull red. Stalk short, rather slender, inserted in a large, irregular cavity. Calyx partially closed, set in a broad, open basin. Flesh tender, juicy, mild, sweet, aromatic. Good. November, March.

SWEET WINTER PENNOCK.

From Ohio, supposed origin Belmont Co. Tree moderately vigorous, upright, rather slender, a moderate bearer.

Fruit medium, oblate, greenish yellow, shaded and striped with red. Flesh whitish, moderately juicy, mild sweet. Poor. December, January.

SWISS REINETTE.

Reinette Suisse.

Of foreign origin. Tree moderately vigorous, spreading.

Fruit medium or above, oblate, inclining to conic, fine yellow, moder-

ately sprinkled with gray and rather indistinct light dots. Stalk short. Cavity large, slightly russeted. Calyx closed. Basin abrupt, deep, slightly corrugated. Flesh yellowish, crisp, rather tender, juicy, pleasant subacid. Very good. December, February.

SYKE-HOUSE RUSSET.

A Yorkshire Apple. Tree spreading, productive.

Fruit medium, oblate, yellowish, mostly covered with light brown russet. Flesh yellowish, firm, crisp, sprightly, juicy, subacid. November, February. (Ron.)

SYLVESTER.

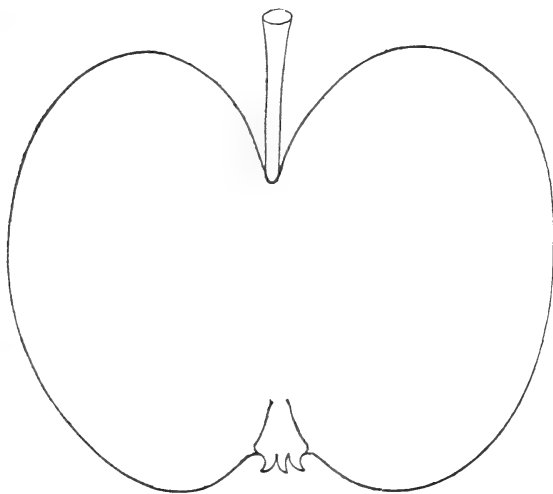
Originated on the farm of Dr. E. W. Sylvester, Lyons, N. Y. Tree vigorous, forming a beautiful open, round, spreading head, a profuse bearer. Young shoots dark reddish brown, slightly grayish or downy.

Fruit below medium, roundish oblate, regular, waxen white, beautifully shaded on the sunny side with bright crimson, thinly sprinkled with minute light and brown dots. Stalk small, short. Cavity regular. Calyx closed. Basin rather shallow. Flesh very white, tender, crisp, juicy, brisk subacid. Very good. September, October. Excellent for cooking and drying.

TABLE GREENING.

Origin, Cornish, Me. Tree vigorous, upright spreading, productive.

Fruit medium, roundish, dull green. Flesh juicy, mild, pleasant subacid. Good. December to March.



Talman's Sweet.

TALMAN'S SWEET.

Tolman's Sweeting. Tallman's Sweeting. Brown's Golden Sweet.

A native of Rhode Island. In quality the fruit is scarcely second rate as a table sort, but it is a very popular and profitable orchard sort,

from the hardihood of the trees, their great productiveness, and its value for stock feeding and various culinary uses. Tree an upright spreading grower, vigorous.

Form nearly globular. When fully ripe, whitish yellow, with a soft blush on one side, and generally a line running from stem to calyx. Stalk rather long and slender, inclining to one side, and inserted in a rather wide, shallow, but regular cavity. Calyx set in a small basin, slightly depressed. Flesh quite white, rather firm, fine-grained, with a rich sweet flavor. November to April.

TARDIVE DE JONCRET.

Originated in Belgium. Tree vigorous, very productive.

Fruit medium to large, roundish conical truncated, ribbed, golden yellow, with bright red on the sun side. Dots and splashes of gray. Stalk short. Calyx closed. Basin deep. Flesh white, tender, sweet subacid. December, February. (An. Pom.)

TART BOUGH.

Sour Bough of some.

An old variety, originally disseminated, so far as we can learn, by Judge Buel, of Albany, N. Y. It much resembles Early Harvest in the fruit, but the trees are more rapid in growth, and it ripens much later, is more acid, and not considered profitable.

There is another TART BOUGH, the fruit of which is small, roundish conical, whitish, thickly sprinkled with dots. Stalk long, slender. Calyx closed, with long segments. Basin shallow. Flesh white, firm-grained, tender, juicy, sprightly, pleasant subacid. Good. Core small. August.

TARVEY CODLIN.

Raised from seed of the Manks Codlin.

Fruit large, conical, dull olive green, with yellow and yellowish red, much spotted with broken rows of blood-red dot, next the sun. Flesh white, juicy. A good culinary apple. November, December. (Hogg.)

TAUNTON.

Origin unknown. Some claim it for Alabama, others Georgia. The tree is a vigorous but straggling grower, very productive. Young shoots reddish brown, slightly downy.

Fruit rather large, oblate conic, greenish yellow, striped and splashed with red, darkest on sun side, large light dots. Stalk slender. Cavity deep, russeted. Calyx closed. Segments long, slender. Basin slightly corrugated. Flesh whitish, tender, juicy, aromatic, acid. Good. September, October.

TAUNTON GOLDEN PIPPIN.

Tree hardy and productive.

Fruit below medium, roundish, rich yellow, markings and freckles of russet in shade, clouded red, and streaked in sun. Flesh yellow, firm, crisp, delicate, brisk, vinous. December to March. (Hogg.)

TENDERSKIN.

Of Southern origin. Tree very vigorous, healthy, and productive. Young wood reddish brown, downy, very short-jointed, with prominent buds.

Fruit below medium, roundish conical, yellow, striped and splashed somewhat with red, some bloom. Stalk long. Calyx closed. Flesh yellowish, tender, very juicy, pleasant subacid. Good to very good. November to January.

TEN SHILLINGS.

Fruit medium, roundish oblate, greenish yellow, covered with pale brown russet orange streaked with red in the sun. Flesh yellowish white, tender, sweet acid. November. (Hogg.)

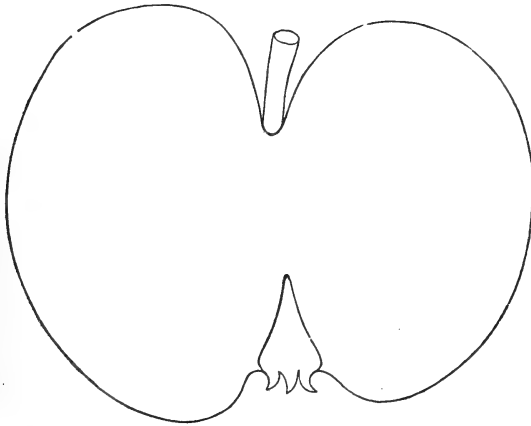
TENTERDEN PARK.

Fruit medium, roundish, yellowish green, mostly covered with deep red, striped with a still deeper shade in the sun. Flesh greenish white, tender, crisp, brisk, juicy, not rich. October, February. (Hogg.)

TERRAL'S LATE.

A Southern Apple of unknown origin. Tree very productive.

Fruit large, oblong oblique, whitish, shaded with light red, striped and splashed with dark red, thickly sprinkled with light brown dots. Stalk very short. Cavity narrow, deep, partially russeted. Calyx small, closed. Segments small, erect. Basin abrupt, deep. Flesh white, tender, juicy, pleasant subacid. Good. Core small. October, November.



Tetofsky.

TETOFSKY.

The Tetofsky is a Russian Summer Apple, which proves profitable for market growing. The tree is an upright spreading grower, forming

an open head, comes early into bearing, and produces annually. Very hardy. Young shoots yellowish reddish brown, leaves very large.

Fruit of medium size, oblate conic, sometimes nearly round, smooth, with a yellow ground handsomely striped with red, and, like most apples of that country, covered with a whitish bloom, under which is a shining skin. The flesh is white and juicy, sprightly acid, fragrant, and agreeable. Good. August. Succeeds at the North.

TEUCHAT'S EGG.

Chucket Egg. Summer Teuchat Egg.

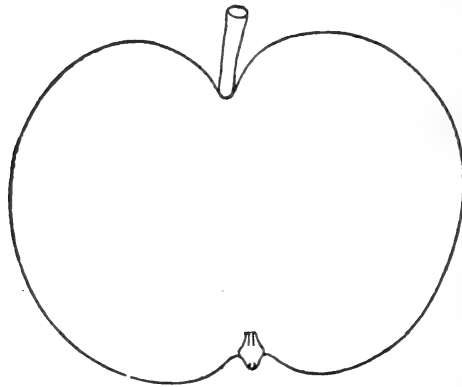
Fruit below medium, varying in shape from ovate to conical, irregularly ribbed, pale yellow, washed and streaked with red. Flesh tender, juicy, pleasant. September. (Hogg.)

TEWKESBURY WINTER BLUSH.

Tewkesbury Blush.

Coxe says this Apple was brought from Tewkesbury, Hunterdon Co., N. J.

It is a handsome, fair fruit, with more flavor and juiciness than is usual in long-keeping apples. They may be kept till August, without



Tewkesbury Winter Blush.

particular care, quite plump and sound. The tree grows rapidly and straight, and the fruit hangs till late in the autumn. Young shoots grayish reddish brown.

The size is small, rather flat. The skin smooth, yellow, with a red cheek. Flesh yellow, with more juice and flavor than any other long-keeping variety. Mild, pleasant subacid. January to July.

THEM'S RED STREAK.

Fruit medium, roundish, pale green, with red stripes. Flesh acid. Winter. (Hov. Mag.)

THOMAS.

An old unknown variety, carried many years since from Maryland to Illinois, where it has received the name of Thomas. The tree is very hardy, moderately vigorous, forming a handsome-shaped top, annually productive.

Fruit large, roundish conical truncated, greenish, becoming yellow when fully matured. Skin thin. Flesh soft, tender, juicy, pleasant subacid. December to February. (N. Lyon: MS.)

TIFT'S SWEET.

Origin, New England. Tree vigorous, upright spreading.

Fruit medium, oblate, green, netted with russet, sometimes with a dull brown cheek. Flesh yellowish, exceedingly sweet and rich. A regular, but not profuse bearer. Unprofitable. September, October.

TILLAQUA.

Big Fruit.

Origin, North Carolina. Tree vigorous, upright spreading.

Fruit above medium, roundish oblate or oblate, yellowish ground, nearly covered, shaded, splashed, and striped with red, moderately sprinkled with large light dots. Stalk short. Calyx closed. Flesh whitish, moderately juicy, brisk subacid. Good to very good. November to March.

TINMOUTH.

Teignmouth. Vermont Pippin.

Origin, Tinmouth, Vt. This fine Apple is much esteemed in the region of its origin. The tree is a good grower, very productive, and a profitable sort. Young shoots dull brownish red, slightly downy.

Fruit above medium, oblate, whitish yellow, considerably shaded with carmine, and sprinkled with a few brown dots. Stalk short, inserted in a deep cavity. Calyx partially closed, set in a deep open basin. Flesh whitish, juicy, tender, pleasant, mild subacid, with a peculiar melon-like aroma. Good to very good. November to February.

TITUS PIPPIN.

Well Apple. Hang-On. Timothy.
Timothy Titus Sort.

Origin, near Hempstead, Long Island. Tree an upright, thrifty grower, productive, and profitable for market.

Fruit large, roundish oblong conic, somewhat ribbed, pale yellow, rarely with a blush. Stalk rather slender. Calyx open. Flesh whitish yellow, a little coarse, breaking, juicy, tender, brisk subacid. Good. Core large and open. December to February.

TOCCOA.

Muskmelon.

Originated in Habersham Co., Ga.

Fruit medium, roundish conical, yellow, with a light shade of crim-

son in the sun, few gray dots. Stalk slender. Calyx closed. Basin small, corrugated. Flesh yellowish, tender, mild subacid. Good. August, September.

TOKER'S INCOMPARABLE.

An English culinary sort.

Fruit large, roundish oblate, ribbed or five-sided, yellowish green, with traces and streaks of red in the sun. Flesh yellowish, firm, crisp, tender, juicy, brisk, pleasant acid. November, December. (Hogg.)

TOLBERT.

From Pennsylvania.

Fruit medium, roundish, deep red, with indistinct stripes, and light dots. Stalk short and small. Cavity narrow, a little russeted. Calyx closed. Flesh yellowish, moderately juicy and tender, mild subacid. Good. Core small. September.

TOM POTTER.

A Devonshire, England, Apple, described by Ronalds. Tree healthy, but uncertain bearer.

Fruit medium, roundish oblate conical, yellow, shaded and striped with red in the sun. Flesh juicy, high-flavored. September, October.

TOOLE'S INDIAN RARERIPE.

Origin unknown. Tree stout, upright, short-jointed, forming a dense round head, moderately productive. Young shoots smooth clear reddish.

Fruit large, roundish slightly conic, greenish yellow, with a tinge of red in the sun. Stalk very short. Calyx small, closed. Basin medium, uneven. Flesh greenish white, tender, brisk subacid, valuable for cooking. Core large. September, October.

TOWER OF GLAMMIS.

Glammis Castle.

Late Carse of Gowrie.

Carse of Gowrie.

A fine culinary Apple from the Clydesdale orchards, Scotland. Tree an excellent bearer.

Fruit large, roundish conical, sides sometimes unequal, pale yellow, shaded with crimson in the sun. Stalk rather slender. Calyx large, open. Basin slightly corrugated. Flesh white, tender, juicy, sharp subacid. Good. December, January.

TOWER'S GLORY.

A cooking Apple, described by Hogg as of medium size, roundish, with obtuse angles, yellow, covered in sun with red, and streaked with darker shades. Stalk very short. Calyx large, open. Flesh yellowish, tender, juicy, brisk, acid. October to April.

TOWNSEND.

Hocking.

Seager.

Originated in Bucks Co., Pa., found over one hundred years ago, in

an Indian clearing by Stephen Townsend, when he first settled in that then wild country. Tree healthy, vigorous, upright spreading, productive. Young wood reddish brown, slightly downy.

Fruit medium, oblate, slightly conic, pale yellow, striped and splashed with red, and covered with a thin bloom. Stalk rather long, slender, inserted in a medium cavity. Calyx closed, set in a basin of moderate depth. Flesh white, tender, very mild, agreeable, subacid. Good to very good. Ripe middle of August to middle of September.

TOWNSEND'S SMILING BEAUTY.

An excellent kitchen Apple.

Fruit large, roundish oblate, ribbed, yellow, with a brownish red cheek. Calyx closed. Flesh tender, fine-grained, juicy, agreeable acid. October to April. (Hogg.)

TRADER'S FANCY.

Originated in the nurseries of Solomon Phillips, Washington Co., Pa. Tree a vigorous grower, a good and regular bearer, and popular where known; valued as a late keeper and market fruit at the Southwest. Young wood dull reddish brown.

Fruit medium, roundish oblate, greenish yellow, striped and shaded with dull red, covered with a bloom. Stalk short, slender. Calyx closed. Basin broad and corrugated. Flesh whitish, crisp, tender, juicy, with a mild, pleasant, subacid flavor. Good to very good. January to May.

TRANSPARENT CODLIN.

Lindley describes this as a handsome Apple, forming a spreading tree, and an excellent bearer.

Fruit medium, roundish oblong conic, lemon yellow, tinged with salmon or red in the sun. Flesh tender, semi-transparent, juicy, sweet. September, November.

TRANSPARENT DE ZURICH.

Fruit small or medium, beautiful waxen white, clear, translucent. September. (Elliott.)

TRANSPORT.

Origin, Indiana. Tree poor in the nursery, good in the orchard, very productive.

Fruit large, globular, flattened, angular, pale yellow, blushed carmine. Dots scattered, green, with white bases; purple where exposed, bloom white. Flesh yellowish white, tender, melting, fine-grained, juicy, mild subacid. Good to very good. December to February. Not very profitable. (Warder.)

TRENTON EARLY ?

A variety somewhat grown in Ohio and the West, the origin or identi-

ty of which has not yet been discovered. The tree is a moderately vigorous grower, hardy, and quite productive. Young wood reddish brown.

Fruit above medium, irregular, ribbed. Color yellowish, with slight undulations over the surface, which are green. Skin smooth and oily. Cavity wide. Basin furrowed. Flesh not very fine-grained, very light and tender, with a pleasant, subacid flavor. Good. August.

TRESCOTT RUSSET.

Originated in Sharon, Conn. Tree a strong grower, good bearer; and the fruit keeps well, but inclines to shrivel.

Fruit roundish conic oblique, yellow russet, with a dull red cheek. Stalk short, thick. Calyx closed. Flesh tough, mild subacid, vinous, almost sweet. Good. February, April.

TRUMBULL SWEET.

Fenton Sweeting. Trumbull Sweeting.

Originated in the orchard of Aaron Fenton, Trumbull Co., Ohio. Tree a healthy, spreading, vigorous grower, an early and good bearer.

Fruit medium, roundish oblate, whitish yellow, with a blush in the sun, and a few brown and indistinct green or gray dots. Stalk rather short and slender. Cavity broad, uneven. Calyx closed. Flesh white, juicy, tender, mild, sweet. Very good. Core rather large. September, October.

TRUMPETER.

Treadle-Hole.

An Apple esteemed in the orchards of Lancaster, England.

Fruit large, oblong, ribbed, pale green, with a tinge of yellow in the sun. Flesh greenish white, crisp, juicy, sweet subacid. October, December.

TUCKER.

A cooking Apple, described by Cole as medium, flattish round, greenish yellow, crisp, juicy, acid. July, August.

TUEBNER'S CIDER.

Origin, Missouri. Valued only for cider.

Fruit below medium, roundish truncated, dull yellowish red. Flesh yellow, acid. October.

TUEBNER'S GOLDEN.

Originated in Missouri.

Fruit small, roundish, yellow. Flesh acid. Valued only for its productiveness. September.

TUFT'S.

Tuft's Baldwin.

Originated in Cambridge, Mass. The tree is vigorous, forming a handsome head, and bearing annually. Young wood dark brown.

Fruit large, roundish oblate, yellowish, much shaded and sometimes striped with red. Stalk in a large cavity. Calyx closed, in a plaited basin of moderate depth. Flesh crisp, rather juicy, with a flavor scarcely subacid, and slightly aromatic. Good. September, October.

TULIP.

Tulp. Tulpen. Dutch Tulip. Calville Tulipee. Tulipen Calville.

A Dutch Apple.

Fruit medium or below, roundish, yellow, nearly overspread with deep, almost purplish red. Stalk slender. Calyx open. Flesh yellowish white, juicy, tender, sweet subacid. Good. November, January.

TURKEY GREENING.

From Connecticut. Tree vigorous, very productive.

Fruit fair and very productive, large, oblate, slightly conic. Skin green, with a dull blush and many light dots. Flesh greenish, tender, juicy, subacid, not valuable. January, February.

TURK'S CAP.

A cooking Apple, described by Hogg as :

Fruit large, roundish oblate, ribbed, golden yellow, some russet and a brownish tinge of red in the sun. Calyx large, open. Stalk long. Flesh yellow, firm, crisp, juicy, pleasant subacid. November, December.

TURN OFF LANE.

Winter Strawberry.

Origin, Salem, N. J. Tree moderately vigorous, upright, a regular and good bearer.

Fruit medium or below, oblate, inclining to conic, yellow, striped and shaded with red. Flesh white, tender, brisk, sprightly subacid. Good. Prized in the neighborhood of its origin as a late keeper.

TUSCALOOSA.

Tuscaloosa Seedling.

A variety originated by Andrew Clements, of Tuscaloosa Co., Ala. A new seedling of good promise as a market sort for the South. Tree moderately vigorous, spreading, productive.

Fruit medium to large, roundish oblate, slightly conic, yellow, shaded, striped, and marbled with red russet near the stalk, few gray dots. Stalk slender. Cavity slightly russeted. Calyx closed. Basin corrugated. Flesh yellowish, firm, juicy, mild subacid. Good to very good. Core small. October to February.

TUSCALOOSA SWEET.

Supposed a native of Kentucky. Tree moderately vigorous, upright, spreading.

Fruit large to very large, oblate, slightly ribbed, yellowish green, becoming deep yellow in the sun, small white suffused specks surrounded with crimson red. Stalk medium. Cavity broad and russeted. Calyx

small, closed. Flesh yellowish white, crisp, tender, brisk, sparkling, sweet. Core medium, compact. Very good. October, December.

TUTTLE.

Origin unknown. A strong, vigorous, upright, spreading grower.

Fruit above medium, roundish, slightly conic, yellow, mostly shaded and splashed with dark and light red, few whitish dots. Stalk very short and stout. Cavity small, russeted. Calyx closed. Flesh whitish, rather firm, tender, juicy, pleasant, mild subacid. Good to very good. December, February.

TWENTY OUNCE.

Morgan's Favorite.
Twenty Ounce Apple.
Eighteen Ounce Apple.
Aurora.

Coleman.
Cayuga Red Streak.
Lima.
Wine of Connecticut.

A very large and showy Apple, well known in Cayuga Co., N. Y., but an old fruit from Connecticut. It is a good, sprightly fruit, though not very high flavored, but its remarkably handsome appearance and large size render it one of the most popular fruits in market. The tree is thrifty, and makes a compact, neat head, bears regular crops, and the fruit is always fair and handsome. Young wood rich brownish red.

Fruit very large, roundish, slightly uneven, greenish yellow, boldly splashed and marbled with stripes of purplish red. Stalk short, set in a wide, deep cavity. Calyx small. Basin moderately deep. Flesh coarse-grained, sprightly, brisk subacid. Good to very good. October to January.

TWIN.

A variety introduced and disseminated in Michigan by a nurseryman, who, having lost its true name, applied the above, because of its bearing its fruit in pairs. It has not yet been identified, but will probably prove some old variety.

Fruit above medium, oblate, yellowish white, nearly covered with bright red, shaded and striped with dark red, usually a patch of russet next the stalk. Flesh fine-grained, crisp, juicy, with occasional pink lines or threads through it, aromatic. October, November. Core small, close. (T. T. Lyon, MS.)

TWITCHELL'S SWEET.

Origin, Dublin, N. H.; a vigorous grower, with slender branches, and very productive.

Fruit medium, roundish conic, red, shaded with purple, and partially sprinkled with small gray dots. Stalk long and slender, inserted in a deep cavity. Calyx small and closed, set in an abrupt, plaited basin. Flesh very white, veined with red under the skin, and sometimes at the core, tender, very sweet and pleasant. Good. November, December.

TYRE BEAUTY.

A new variety, originated on the farm of Jason Smith, Tyre, Seneca

Co., N. Y. Tree a good grower, productive of fruit uniformly even in size, and valuable as a market sort.

Fruit medium size, roundish oblate, pale yellow, with broken lines and splashes of deep crimson, shaded and marbled intermediate, mouldy bloom, light gray dots. Stalk short. Cavity deep. Calyx with almost erect segments. Basin deep. Flesh white, crisp, tender, breaking, slightly acid, pleasant. Good. Core small. Seeds broad, pointed. Season, early September. (Rural New Yorker.)

TYROLER PIPPIN.

Reinette der Tyrol

A Swiss Apple.

Fruit small to medium, roundish, yellow, with dull red, broken stripes in the sun. Flesh white, veined with green, firm, sugary. Winter. (Verg.)

UNCLE JOHN.

Origin, Eastern Pennsylvania. Tree a strong, upright grower, productive.

Fruit medium, oblate oblique, whitish, shaded with light, and splashed and striped with dark red or lake, thickly sprinkled with large light dots. Stalk short and small. Calyx closed. Flesh quite white, tender, juicy, mild subacid. Good to very good. Core small. November, December.

UNIQUE.

A French Apple.

Fruit medium, oblong conic, ribbed, pale yellow, lightly shaded in the sun with red, and thickly sprinkled with small gray and light dots. Stalk short. Cavity medium. Calyx small, closed. Segments short to a point. Basin small, abrupt. Flesh white, firm, moderately juicy, subacid. Good. Core small. November, December.

UNION.

Originated in the County of Way, Ia. Tree a good bearer.

Fruit medium, roundish oblong conical, yellow, with pale red stripes. January. (Lewis Jones' MS.)

UPDEGRAFF.

From Pennsylvania. Tree vigorous, spreading.

Fruit medium, oblate or roundish oblate, inclining to conic, pale yellow, shaded, splashed, and striped with light and dark red, darkest in sun, few areole dots. Stalk slender, Calyx large, open, or partially closed. Basin corrugated. Flesh white, tender, juicy, pleasant subacid. Core small. Good. November.

UTTER.

A popular Apple in Wisconsin and some other Western sections. Tree a regular bearer, and hardy.

Fruit medium to large, oblate, lemon yellow ground, mottled, shaded, and striped with light red, small russet dots. Stalk short and slender. Calyx small, closed. Basin open, furrowed. Flesh white, tender, juicy, mild, pleasant subacid. Good. November, December.

VALE MASCAL PEARMAIN.

Fruit below medium, roundish, greenish yellow, with bright red in the sun, and many spots of russet. Flesh yellow, crisp, sugary. (Hogg.)

VAN BUREN.

A Southern variety.

Fruit medium to large, globular, a little conical, yellow, shaded with dark red, specks and patches of russet. Stalk short, fleshy. Cavity narrow. Calyx small, closed. Basin shallow. Flesh yellow, juicy, tender. Good keeper. October to April. (White.)

VANCE'S HARVEST.

Vance's Early.

Origin, Edgar Co., Ill. Tree vigorous, productive.

Fruit small, oblate, inclining to conic, yellow, shaded with orange red in the sun, few gray and light dots. Cavity russeted. Calyx closed. Flesh yellowish, tender, juicy, pleasant subacid. Good. August. Core small.

VANDENABEELE.

Originated in Flanders. Tree vigorous, productive.

Fruit large, oblong conical truncated, ribbed at apex, golden yellow, splashed and marbled with red in the sun, many gray dots and shades. Stalk short. Cavity deep. Calyx large, open. Flesh yellowish white, half tender, agreeable subacid. December to February. (An. Pom.)

VANDERNOOT.

One of Van Mons' seedlings.

Fruit large, roundish conical, clear yellow, splashed and clouded with deep rich red in the sun, greenish mould toward the apex. Stalk long. Cavity deep. Calyx open. Basin furrowed. Flesh white, tender, juicy, subacid. November, December. (Alb. Pom.)

VANDERSPIEGEL.

Seek-no-Further of some.

Origin, Bennington, Vt. Tree a good grower, and productive.

Fruit below medium, roundish conic truncated, yellowish, shaded and splashed with red, few light dots. Calyx partially closed. Flesh yellowish, crisp, juicy, pleasant subacid. Good. December, February.

VANDEVERE.

White Vandevere.	Vandevere of Pa.	Green Vandevere.
Little Vandevere of Indiana.	Stalclubs.	Vandiver.
Vanderveer.	Yellow Vandevere.	Striped Vandevere.
Pennsylvania Vandevere.	Lasting Vandevere?	Fall Vandevere?
	Red Vandevere.	

The Vandevere is an old fruit, a native of Wilmington, Del., and took its name from a family there by name of Vandiver, which should be by right the name of the Apple; but it has so long been known and grown under the spelling Vandevere, that we deem it best not to change it. There is much confusion existing respecting this Apple and its sub-varieties, which possibly some of those may be, grown under what we give as synonyms. Tree of moderate horizontal growth, not very productive. Young shoots smooth, dark grayish reddish brown, with bold, full, projecting, rounded conical buds.

Fruit of medium size, oblate. Stalk about an inch long, inserted in a deep cavity. Calyx small and closed, set in a round, moderate basin. Color waxen yellow, striped with red, and covered with numerous green dots. Flesh yellowish, compact, but tender, with a fine, rich, subacid flavor. Good. October to January. Valuable for culinary purposes.

There is a Vandevere which we have received from Virginia, the young wood of which is slender, with very small inconspicuous buds.

VANDERVERE PIPPIN.

Indiana Vandevere.	Watson's Vandevere.	Big Vandevere.
Mountain Vandevere.	Imperial Vandevere?	

Origin unknown. Tree a strong, rapid grower, spreading, a moderate bearer. Young wood smooth, light reddish brown, medium sized, buds reddish.

Fruit large, oblate, approaching conic, yellow, flaked all over with red, striped on the sunny side, and covered with rough brown dots. Stalk short, inserted in a broad, deep cavity, often russeted. Calyx partially closed, set in a moderate basin. Flesh crisp, with a brisk subacid flavor. Good. September to February. Valuable for cooking and drying.

VANDYNE.

Origin unknown. Tree upright, vigorous grower, productive. Young wood smooth, brownish.

Fruit large, roundish, slightly conic, yellowish, with a tinge of red, and slightly sprinkled with brown and reddish dots. Stalk rather slender, in a large cavity. Calyx closed, in a deep, uneven basin. Flesh white, tender, juicy, subacid, agreeable. Good. September, October.

VAN MONS REINETTE.

Reinette Van Mons.

Origin unknown.

Fruit small, roundish oblate, slightly conic, rich yellow, with a rich red cheek in sun, considerable russet. Stalk rather short. Calyx closed. Flesh yellow, rich subacid. Very good. December, March. Not profitable.

VAUGHN'S WINTER.

Origin, Christian Co., Ky. Tree hardy, vigorous, and productive. Introduced by J. S. Downer, of Elkton, Ky.

Fruit medium, oblate. Sides unequal, whitish, waxen yellow, shaded with crimson and lilac, and sometimes obscurely striped, and thickly covered with conspicuous light dots. Stalk small and short. Deep, uneven cavity. Calyx closed. Basin deep, abrupt, open, slightly corrugated. Flesh yellowish, tender, juicy, mild subacid. Good. January to March.

VAUGHN'S PIPPIN.

Colonel Vaughn's.

Fruit small, conical, waxen yellow, with bright crimson in the sun. Calyx small, closed. Stalk short. Flesh white, tinged with red under the skin on the side, crisp, juicy, sweet. September, October. (Hogg.)

VAUGOYEAU.

Cadeau du General.

Origin unknown. Tree vigorous.

Fruit large, roundish conical, flattened at base, dull yellow, shaded and splashed with red, spotted with gray. Stalk short. Cavity deep. Calyx half closed. Flesh white, tender, juicy, subacid. December to March. (An. Pom.)

VERMILLON ROYÉE.

A French Apple.

Fruit medium, roundish oblate, inclining to conic, yellow, mostly covered, shaded, splashed, and striped with red, few gray dots. Stalk short. Cavity russeted. Calyx large, open. Flesh yellow, crisp, juicy, brisk subacid. Very good. Core small. December, March.

VERSAILLAISE REINETTE.

Reinette Versailles.

Of French origin. Tree vigorous, upright spreading.

Fruit medium, roundish, slightly conic, yellow, mostly covered with dull russet, a slight tinge of red in the sun. Stalk rather short. Calyx closed. Basin corrugated. Flesh white, fine, tender, moderately juicy, brisk subacid. Good to very good. Core small. December, February.

VICTUALS AND DRINK.

Big Sweet.

Pompey.

An old Apple, which originated in the neighborhood of Newark, N. J., about 1750. Tree of vigorous, upright spreading habit, and a moderate bearer.

Fruit large, oblong, rather irregular, and varies a good deal in size. Skin thin, but rough, dull yellow, marbled with russet, with a faint

russet blush on the sunny side. Stalk moderately long and slender, deeply inserted in an irregular cavity. Calyx small, set in a rather shallow basin. Flesh yellowish, tender, breaking, rich, sprightly, sweet. Very good. In perfection from October to January, but will keep till April.

VIOLETTE.

A sauce or cooking Apple, described by Ronalds as of medium size, oblong conical, dark copper or purple color, covered with a fine bluish bloom. Flesh white, tinged with red under the skin, juicy, brisk acid. December to March.

VIRGINIA GREENING.

Ross Greening. Green Mountain Pippin. Virginia Pippin?

Origin unknown, supposed Southern. Tree a vigorous grower and very productive.

Fruit large, oblate, greenish yellowish, thinly covered with large brown dots, and a slight blush. Stalk rather long, in a large cavity. Calyx open. Basin broad, corrugated. Flesh yellow, compact, a rather pleasant subacid. Esteemed at the South as a late keeper and a good market apple.

VIRGINIA QUAKER.

Origin not known. Tree vigorous, upright.

Fruit quite small, globular, slightly conic, greenish yellow. Dots scattered, minute, black. Calyx small, closed. Flesh yellowish white, firm, breaking, subacid. Good. Midsummer. (Warder.)

VIRGINIA SPICE.

Origin unknown. Tree an erect, slender, moderate grower.

Fruit medium, oblate conic, whitish, thinly sprinkled with brown dots. Stalk very short. Cavity russeted. Calyx small, closed. Basin small. Flesh yellowish, juicy, crisp, sprightly subacid. Good. September, October.

VOSS' WINTER.

Southern.

Fruit medium to large, globular, unequal, smooth white, with leather cracking, and a heavy bloom. Dots minute, brown. Calyx small, closed. Basin abrupt, deep, wavy. Stalk long. Cavity deep. Flesh whitish yellow, firm, juicy, subacid. Good. December. (Warder.)

WABASH.

Wabash Bellflower.

Origin, Pennsylvania.

Fruit large, roundish oblong, or somewhat conical, deep yellow, covered with clear orange red, brightest on the sunny side, and streaked with russet in the cavity around the stalk. Stalk short, slender. Calyx

rather large, open. Flesh white, firm, crisp, tender, subacid. Core large. November, December. (Hov. Mag.)

WADDELL HALL.

A Southern Apple of unknown origin. Tree moderately vigorous. Young wood brownish.

Fruit small, roundish conical, pale yellow, shaded, striped, and splashed with light red. Stalk long, slender. Calyx closed. Flesh whitish, juicy, tender, pleasant subacid. Good. December to March.

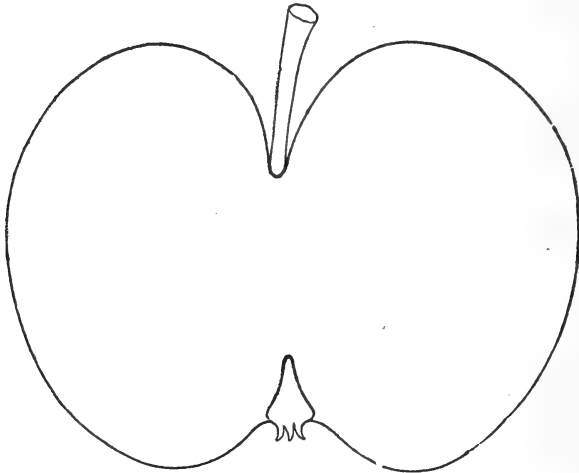
WADHURST PIPPIN.

Origin, Wadhurst, Sussex, England. A valuable cooking Apple.

Fruit large, roundish conical, ribbed at apex, yellow, splashed and marbled with red in sun, small gray dots. Stalk very short. Calyx closed, with long segments. Flesh yellowish, crisp, juicy, brisk acid. November, February.

WAGENER.

Origin, Penn Yan, Yates Co., N. Y. Tree thrifty, upright, hardy, and early bearer; requires thinning to produce good-flavored fruit; when grown in the shade is wanting in flavor. Young wood light reddish brown, slightly downy. Buds prominent.



Wagener.

Fruit medium or above, roundish oblate, yellow, mostly shaded with crimson, obscurely striped, and sprinkled with light dots. Stalk nearly an inch long, rather slender, inserted in a large, broad, irregular cavity. Calyx small and closed, set in a rather abrupt somewhat corrugated basin. Flesh yellowish, very tender, juicy, excellent, brisk, somewhat vinous. Very good to best. A very delicate apple. Ripe, November to February

WALKER'S YELLOW.

Walker's Winter.

This Apple is a native of Pulaski Co., Georgia, and introduced by George Walker. Tree upright, vigorous.

Fruit large, roundish conic, fine golden yellow, with a faint blush on the sunny side. Stalk of moderate length, in a deep, acute cavity. Basin small. Flesh yellowish white, juicy, hard, rather too acid for a dessert fruit. Good. November to April.

WALPOLE.

Origin, Walpole, Mass. Tree moderately vigorous. Young wood grayish.

Fruit medium, roundish, yellow, shaded and striped with bright red. Stalk short. Cavity large. Calyx closed. Basin shallow. Flesh yellowish, tender, juicy, sprightly subacid. Very good. Last of August and first of September.

WALTHAM ABBEY.

Waltham Abbey Seedling

Origin, Essex, England.

Fruit large, roundish, slightly conic, yellow, with dull red in the sun, many minute russet dots. Stalk short. Cavity russeted. Calyx large, open. Flesh yellowish, tender, juicy, sweet. October, January. (Lindley.)

WANSTALL.

Green Street Apple.

Originated in Kent, England.

Fruit medium, roundish, slightly conical, ribbed at apex, golden yellow, striped and mottled with dark red in the sun, patches and veins of russet, and russet dots. Calyx half open. Basin furrowed. Flesh yellow, firm, crisp, juicy, sugary, rich. December to May. (Hogg.)

WARD.

Origin, Westville, Champagne Co., Ohio. Tree healthy and productive.

Fruit large, oblong, flattened at ends, yellow, streaked and spotted with mottled red. Flesh yellowish white, subacid. (O. P. S.) Forsyth describes an apple under this name as of medium size, flat, green, with some red in sun, sharp acid, and keeps till June.

WARFIELD.

Originated in Muscatine, Ia. Tree hardy, thrifty, vigorous grower, an early and abundant bearer.

Fruit medium, roundish oblate, light waxen yellow, with a blush in the sun, moderately sprinkled with gray dots. Stalk slender. Cavity slightly russeted. Calyx large, open. Segments short. Flesh whitish, moderately juicy, mild subacid. Good. Core small. Valuable for cooking. September, October.

WARNER'S KING.

Tree a free and vigorous grower, and a good bearer; hardy, valuable for culinary use.

Fruit very large, roundish ovate, deep yellow, with russet dots and patches. Stalk short. Calyx small, closed. Flesh white, tender, crisp, brisk subacid. November to March. (Hogg.)

WARRASCHKE DE GUBEN.

A Russian variety, new.

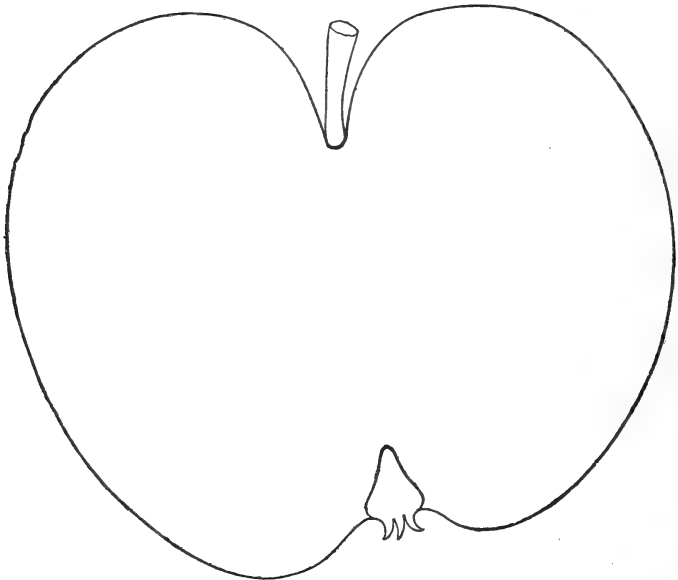
Fruit medium to large, roundish oblate, slightly conical, greenish yellow, with considerable brownish red at apex end. Flesh white, fine, tender, mild, sweet, agreeable. Early Winter. (Ver.)

WASHINGTON ROYAL.

Palmer Greening.

Originated in Leominster, Mass. Tree vigorous and productive.

Fruit above medium size, roundish oblate, yellowish green, with numerous small gray dots, and a clear red in the skin. Calyx closed, in a broad basin. Stalk short. Flesh whitish, crisp, juicy, subacid, slightly aromatic. Core small. Good to very good. Keeping till July.



Washington Strawberry.

WASHINGTON STRAWBERRY.

Originated on the farm of Job Whipple, Union Springs, Washing-

ton Co., N. Y. Tree hardy, vigorous, upright spreading, an early and abundant bearer. Young wood reddish. Buds prominent, rounded.

Fruit large, roundish conical, flattened at base, yellow, shaded, splashed, and mottled with rich red, or crimson. Stalk short. Cavity thinly russeted. Calyx closed. Segments rather long, reflexed. Basin abrupt, deep, furrowed. Flesh yellow, a little coarse, crisp, tender, juicy, brisk subacid. Very good. September, October.

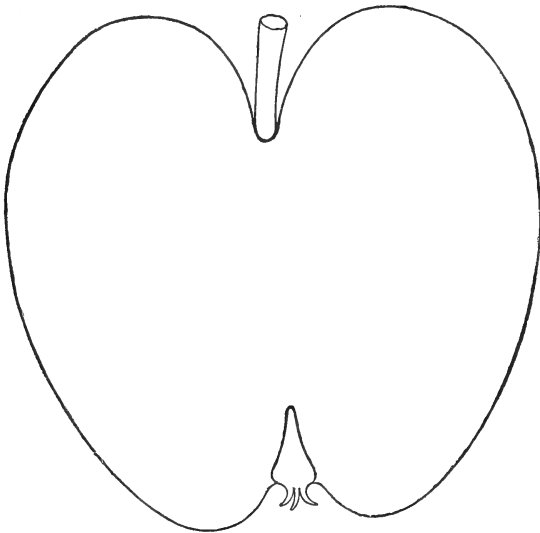
WASHINGTON SWEET.

Origin, Berlin, Mass. Tree a thrifty grower and annual bearer. Young wood reddish brown, slightly downy.

Fruit below medium, roundish, slightly oblong conic, flattened at ends, yellow occasionally with crimson cheek in the sun, few green dots. Stalk slender. Calyx closed. Flesh yellowish, crisp, juicy, pleasant sweet. Good. October, November.

WATER.

Originated in Durham Township, Bucks Co., Pa. Tree vigorous, erect, forming a round somewhat close head, blooms nearly two weeks later than other varieties, and produces abundantly every other year. Young wood very dark, blackish brown.



Water.

Fruit medium, roundish conical, sometimes oblong conic truncated, whitish yellow, shaded with rich purplish crimson in the sun, few brown dots. Stalk short, slender. Calyx closed. Basin small, abrupt, slightly corrugated. Flesh white, very tender, juicy, pleasant subacid. Very good. October, November.

WATERMAN'S SWEET.

Fruit medium, oblate inclining to conic, yellow, shaded, splashed, and mottled with crimson, few light gray dots. Stalk slender. Calyx small, closed. Flesh yellowish, crisp, tender, juicy, moderately sweet. Good. December to March.

WATSON'S DUMPLING.

A large English kitchen Apple, nearly round, yellowish green, faintly striped with dull red. Flesh juicy, pleasant, subacid. Good. October to January.

WATSON'S FAVORITE.

From Maine.

Fruit medium, roundish oblate, reddish blush on yellow. Flesh yellowish, juicy, pleasant subacid. Very good. (Cont. Gent.)

WAUGH'S CRAB.

Claimed to have originated in Culpepper Co., Va. Tree thrifty, very productive, valued mainly for cider and long keeping.

Fruit small, roundish conic truncated, shaded with light red, splashed and striped with deep red in the sun. Stalk long, slender. Calyx in an abrupt basin. Flesh whitish, very firm, moderately juicy, sweet subacid. Good. February to April.

WAX.

Fruit large, roundish oblate, yellowish green, slightly shaded with red. Stalk short. Calyx closed. Flesh white, a little coarse, sweet. Good. December, February.

WAXEN.

Origin, supposed to be Virginia. Tree thrifty. Young wood dark.

Fruit medium, roundish, slightly oblate, pale yellow, oily, sprinkled with a few dots. Stalk slender, in a deep cavity. Calyx closed. Basin shallow. Flesh whitish yellow, crisp, tender, juicy, sprightly, mild subacid. Good. November, December.

WEALTHY.

A new variety originated by Peter M. Gideon, near St. Paul, Minn., from seed gathered in Maine about 1860. So far the tree has proved hardy, vigorous, and healthy.

Fruit medium, oblate or roundish oblate, whitish yellow ground, shaded with deep rich crimson in the sun, obscure broken stripes and mottlings in the shade, sometimes entirely covered with crimson, many light dots. Stalk short to medium, slender. Cavity green, russet. Calyx partially closed. Basin deep, abrupt, uneven. Flesh white, fine-grained, stained with red, tender, juicy, lively, vinous, subacid. Very good. Core small. Season, December, February.

WEALTHY'S FAVORITE.

Winter Seedling.

Bradley's Winter.

Origin, Town of Plymouth, Mich.

Fruit medium, roundish oblate, pale waxen yellow, shaded in sun with crimson, and thinly sprinkled with brown and white dots. Stalk short. Cavity deep, acute. Calyx closed. Basin abrupt, uneven. Flesh whitish yellow, tender, juicy, mild subacid, pleasant. Very good. December to February. An amateur's fruit.

WEBB'S WINTER.

A Southern, probably Mississippi, variety. Tree slender, with drooping branches.

Fruit medium, roundish, yellow, shaded and rather faintly splashed and striped with red. Stalk long, slender. Calyx closed. Flesh whitish, fine-grained, moderately tender, juicy, pleasant, mild subacid. Good. Core small. December, February.

WELLFORD'S YELLOW.

Origin, Essex Co., Virginia. A rapid grower and a great bearer.

Fruit rather small, roundish flattened, pale yellow, with faint red streaks on one side. Flesh yellow, fine-grained, juicy, subacid, aromatic. Keeps well until June.

WELL'S SWEET.

Sweeting, Well's.

Origin unknown. Tree upright spreading, productive.

Fruit of medium size, roundish, broadest in the middle, and lessening each way, pale dull green, with a dull red or brownish cheek. Stalk rather slender and short. Calyx short, set in quite a shallow basin. Flesh very white, and very tender, abounding with a rich, agreeable, sprightly juice. Good to very good. November to January.

WESTERN SPY.

Origin, farm of John Mansfield, Jefferson Co., O. Tree a slender spreading, moderate grower, but very productive.

Fruit rather large, roundish oblate, yellow, often much shaded with crimson. Stalk short and stout, inserted in a large cavity. Calyx open, set in an abrupt basin. Flesh yellowish, tender, juicy, brisk subacid. Excellent for cooking. Good. October to June.

WESTFIELD SEEK-NO-FURTHER.

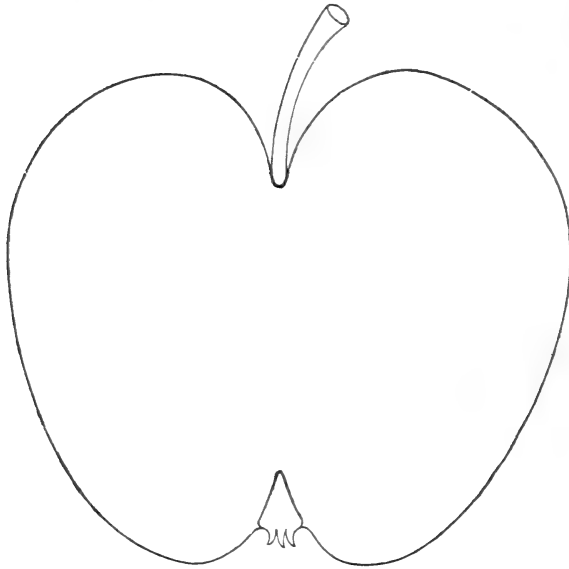
Connecticut Seek-no-Further.

Seek-no-Further.

The Westfield Seek-no-Further is the Seek-no-Further of Connecticut, and is an old and highly esteemed variety of that district. It has a pearmain flavor.

Fruit large, pretty regularly round conical, pale or dull red over a pale clouded green ground—the red sprinkled with obscure russeted yel-

low dots. Stalk very slender, three-fourths of an inch long, inserted in an even cavity. Calyx closed, or with a few reflexed segments, and set



Westfield Seek-no-Further.

in an even basin of moderate depth. Flesh white, fine-grained, tender, with a rich pearmain flavor. Very good or best. A first-rate fruit. October to February.

WEST GRINSTEAD PIPPIN.

East Grinstead.

A Sussex, England, Apple, described by Ronalds as of great excellence.

Fruit medium, roundish conical, greenish, with broken stripes and splashes of red brown dots. Stalk short. Calyx open. Flesh greenish white, soft, tender, brisk subacid. November, February.

WESTON.

Origin, farm of Major Weston, Lincoln, Mass. Tree vigorous, spreading.

Fruit medium, roundish conical, light yellow, shaded, striped, and splashed with red. Flesh white, moderately juicy, mild pleasant flavor. Good. Core large. October.

WHEELER'S EXTREME.

Origin, Gloucester, England.

Fruit small, oblate, greenish yellow, shaded and mottled with red, and traced with russet. Flesh yellowish white, tender, sweet. November, February. (Hogg.)

WHEELER'S RUSSET.

An Apple originated in Gloucester, England, and described by Lindley, as:

Fruit medium, roundish oblate, yellowish, gray russet brown in the sun, and darker russet specks. Flesh firm, greenish white, brisk, saccharine. November to March.

WHEELER'S SWEET.

Origin, Harding Co., O.

Fruit medium, roundish conic, yellow, with a red cheek in the sun, minute brown and light dots. Stalk short. Cavity deep, furrowed. Calyx closed. Basin abrupt, deep. Flesh yellowish, rather firm, moderately juicy, pleasant, sweet. Good. Core rather small. October, November.

WHIG.

From Pennsylvania. Tree moderately vigorous, spreading.

Fruit below medium, oblate, inclining to conic, often oblique, yellow, shaded, splashed, and striped with light and dark red, sometimes very dark, large light dots, often with a brown centre. Stalk short, small. Cavity russeted. Calyx closed. Flesh white, tender, juicy, mild subacid, almost sweet. Good. Core small. December.

WHITE ASTRACHAN.

Pyrus Astracanica.

Transparent de Moscovie.

Glacé de Zélande.

Weisser Astrakan.

Astracanischer Sommerapfel.

A nearly white, semi-transparent Russian Apple.

Fruit of medium size, roundish. Skin very smooth, nearly white, with a few faint streaks of red on one side, and covered with a white bloom. Flesh quite white, partially transparent, tender, and of delicate flavor, but rather dry. Poor. First of August.

WHITE BEAUTY.

Origin, Ashtabula Co., O. Tree a good grower, young shoots, reddish, with gray specks.

Fruit medium, roundish, smooth, dull greenish, with grayish specks. Flesh very white, tender, sprightly subacid. Good. September, December. (Elliott.)

WHITE CALVILLE.

White Winter Calville.

Calville Blanche d'Hiver.

Weisser Winter Calville.

The White Calville is a celebrated old French sauce and cooking Apple; but, like most others of its class, is not worthy of cultivation.

Fruit medium, roundish conic, ribbed, yellow, faint blush. Flesh coarse, tender, pleasant. Hardly good. November, February.

WHITE DOCTOR.

Origin, Pennsylvania. A profitable market sort, and valuable for culinary uses. Tree vigorous and productive.

Fruit large, roundish oblate, greenish yellow. Stalk short, set in an acute cavity. Calyx closed. Basin shallow and furrowed. Flesh white, tender, brisk subacid. Good. September, October.

WHITE INCOMPARABLE.

Large White Incomparable Crab.

An Apple described by Ronalds as above medium size, clear creamy yellow. Stalk slender. Flesh crisp, juicy, acid. October, December. Valuable for culinary uses.

WHITE JUNEATING.

Joanetting.	Owen's Golden Beauty.	Juneating.
Juniting.	Jennetting.	Ginetting.
Gennetting.	Juneting.	Early Jennetting.
Primiting.	May Pippin.	Yellow May.
May of Virginia.	Caroline.	Carolina of some.
	Early May.	

This is an old variety, mentioned by Evelyn in 1660, and described by Ray in 1688, and is a very tolerable little Apple, ripening among the very earliest, during the last of June and the first of July. It is very distinct from the Early Harvest, sometimes called by this name. Tree a moderate grower, and forms a roundish upright spreading head. Productive.

Fruit small, round, a little flattened. Calyx closed. Stalk rather long and slender. Pale green at first, light yellow, with sometimes a faint blush on the sunny side. Flesh crisp and of a pleasant flavor, but soon becomes dry. Good.

WHITE NONPAREIL.

Tree vigorous and productive.

Fruit medium, roundish, depressed at the ends. Skin greenish yellow, almost entirely covered with reddish gray. Flesh white, half firm, sugary, acid. May. (Soc. V. Mon.)

WHITE PARADISE.

Paradise Pippin.	Lady's Finger.	Long May.
May.	Egg.	Eve.

A Scotch fruit of some beauty, but of little value except for culinary use. Tree a free grower, and productive.

Fruit medium, oblong roundish conical, broadest at base, clear yellow, splashed and mottled with red, brown russety dots. Flesh yellowish, tender, crisp, pleasant acid. October.

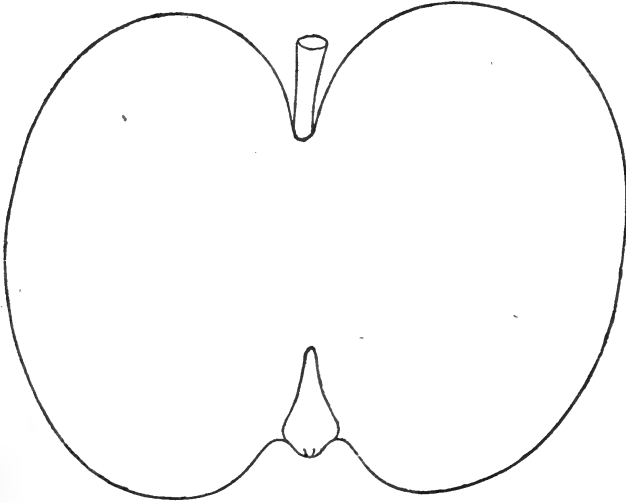
WHITE PIPPIN.

Canada Pippin.

This Apple is much cultivated at the West, but of unknown origin.

It is of the Newtown Pippin class, distinct from Canada Reinette. Tree thrifty, upright, a regular and good bearer. Young shoots dark clear reddish brown, downy.

Fruit large, form variable, roundish oblate, slightly oblique, greenish white, waxy, sprinkled with green dots, and becoming pale yellow at maturity, sometimes having a dull blush and a few brown dots. Stalk short, inserted in a large cavity, surrounded by green russet. Calyx



White Pippin.

small, nearly closed, set in an abrupt furrowed basin. Flesh white, tender, crisp, juicy, fine, rich subacid. Very good to best. Core small. January to March.

WHITE RAMBO.

Origin, Huntington Co., Pa. Tree of medium growth. Branches remarkably slender. Very productive.

Fruit medium, oblate, approaching conic, yellowish white. Stalk short, in a russeted cavity. Calyx closed. Basin shallow, surrounded by prominences. Flesh yellowish, fine, pleasant subacid. Good. Core small. November.

WHITE ROMARIN.

Romarin Blanche.

An Italian Apple.

Fruit medium, oblong conical, clear light yellow, faint red in the sun, large gray dots. Stalk slender. Calyx closed. Flesh yellowish white, fine, aromatic subacid. Core large, open. December to March. (An. Pom.)

WHITE RUSSET.

An Irish dessert Apple.

Fruit large, roundish oblate, yellowish russety green, intermixed with white, and having a little light red on the sunny side. Stalk short. Flesh firm, good. Apt to grow mealy. November. (Lindley.)

WHITE SPANISH REINETTE.

D'Espagne.	Reinette Blanche d'Espagne.
Fall Pippin, erroneously.	Reinette d'Espagne.
Large Fall Pippin.	Camnesar.
Cobbett's Fall Pippin.	Elgin Pippin ?

A very celebrated old Spanish variety.

Fruit very large, roundish oblate, with broad ribs on its sides, terminating in an uneven crown, where it is nearly as broad as at the base. Calyx large, open, very deeply sunk in a broad-angled, oblique, irregular basin. Stalk half an inch long, set in a rather small, even cavity. Skin smooth, yellowish green on the shaded side, orange, tinged with brownish red next the sun, and sprinkled with grayish dots. Flesh yellowish white, crisp, tender, rich subacid. Very good. The tree has the same wood, foliage, and vigorous habit as our Fall Pippin, and the fruit keeps a month longer. This is quite distinct from Fall Pippin.

WHITE SPICE.

Origin, Cumberland Co., Pa.

Fruit large, roundish oblate. Flesh subacid, good. September. (A. Pom. S. Rep.)

WHITE SPITZENBERG.

Origin, Northampton Co., Pa. Tree an annual productive bearer.

Fruit medium, roundish oblong, yellow, interspersed with large gray dots, with a blush on the exposed sides. Stalk short, in a deep, open cavity. Calyx small, closed, narrow basin. Flesh breaking, sufficiently juicy, subacid, agreeable aroma. Good. December to March.

WHITE'S RED WINTER.

Southern.

Fruit large, oblong, shaded and striped with red. Flesh rich, juicy. Good keeper. (Cont. Gent.)

WHITE SUMMER PIPPIN.

An early dessert Apple, described in Ronalds as of medium size, roundish, straw color, mottled and variegated with some russet and purple spots. Flesh tender and delicious, if eaten off the tree in August.

WHITE SWEET.

Witherill's White Sweet.

Honey Sweet of some.

Origin, supposed New Jersey. Tree vigorous, productive.

Fruit medium, roundish oblate conic, whitish with a blush of crim-

son in the sun. Stalk slender. Calyx closed. Flesh white, not very tender, moderately juicy, mild sweet. Good. September, October. Valuable for stock, cider, and cooking.

WHITE VIRGIN.

Scotch Virgin.

A culinary Apple, described by Hogg as :

Fruit medium, oblate, pale yellow to rich orange, and streaked with red in the sun, a few dark dots and veins of russet. Stalk short. Calyx large, closed. Flesh white, soft, tender, juicy, brisk acid. October to February.

WHITE'S WINTER.

Origin, Guilford Co., N. C. Tree thrifty, a great and early bearer.

Fruit medium, roundish oblate, yellowish white, somewhat rich, juicy, and very good. Keeps well. (Count. Gent.)

WHITEWATER SWEET.

From Southern Ohio. Tree moderately vigorous, spreading.

Fruit small, roundish oblate, yellowish green, with a few gray and many indistinct light dots. Calyx closed. Flesh whitish, compact, juicy, crisp, mild sweet. Good. December to March.

WHITE WINE.

Fruit medium, roundish conical, yellowish, with rays, patches, and specks of russet. Stalk short and fleshy. Calyx open. Flesh white, firm, crisp, pleasantly acid. October, December.

WHITE WINTER.

Origin, farm of Mr. Cocklin, Cumberland Co., Penn. Tree moderately vigorous, very productive.

Fruit small, nearly globular, light yellow, with a dull crimson cheek. Stalk medium, in an acute cavity. Calyx firmly closed, a little sunk, in a very small basin. Flesh whitish, juicy, almost buttery, mild subacid. Good. January to May.

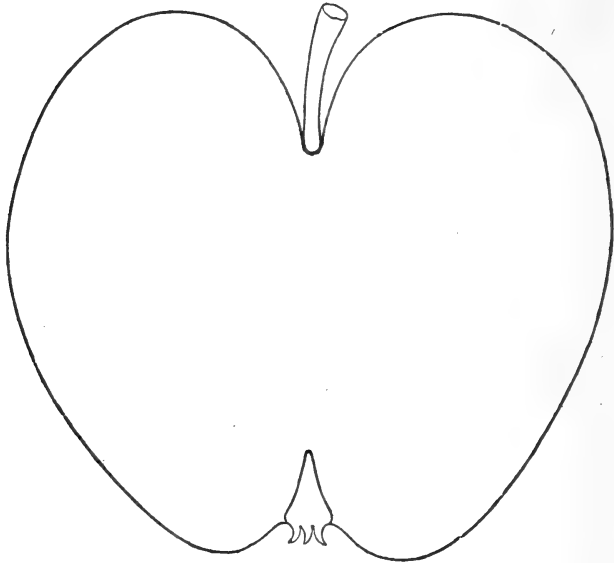
WHITE WINTER PEARMAIN.

Campbellite.

Origin unknown, by some thought to be an old Eastern variety, highly esteemed at the West. Tree spreading, hardy, and thrifty, a regular and good bearer. Young shoots very short-jointed, dull reddish brown, slightly grayish or downy at end.

Fruit medium or above, roundish oblong conic, somewhat oblique. Stalk short, in a deep cavity. Calyx nearly closed. Segments long. Basin uneven. Skin pale yellow, with a slight blush or warm cheek, thickly

sprinkled with minute brown dots. Flesh yellowish, tender, crisp, juicy, very pleasant subacid. Very good. January to April.



White Winter Pearmain.

WHITMAN.

From South Abington, Mass.

Fruit a little above medium, oblong, greenish yellow, with russet blotches. Stalk slender. Flesh sweet. December. (N. E. Farm.)

WHITMORE'S PIPPIN.

Fruit medium, conical, ribbed, yellowish green, dark green specks, and slight tinge of red in the sun. Flesh whitish green, breaking, brisk, slight aromatic. November, January. (Lindley.)

WHITNEY RUSSET.

Origin unknown. Supposed Canadian. Tree a vigorous grower, productive. Young shoots reddish brown, grayish.

Fruit small, oblate, slightly inclining to conic, yellow, mostly covered with thin light russet, sometimes a shade of crimson in the sun. Stalk long, often with bracts. Cavity large, deep. Calyx closed. Basin slightly corrugated. Flesh yellowish, tender, juicy, rich, mild subacid. Very good. Core small. December to April.

WICKHAM'S PEARMAIN.

Wick Pearmain.

This variety, says Hogg, was grown at Wickham, near Winchester, Hampshire, England. It is an excellent dessert Apple.

Fruit small, roundish conical, flattened at base, yellow, tinged and shaded with red, patches and specks of russet. Flesh greenish yellow, tender, crisp, juicy, high flavored. October to December.

WIER SWEET.

Origin unknown. Tree moderately vigorous, forming a round, regular head, productive.

Fruit medium, oblate, greenish yellow or yellow, often with a shade of bronze in the sun, moderately sprinkled with brown dots. Stalk slender. Calyx closed. Flesh whitish, tender, juicy, mild, pleasant, rather rich sweet. Good. Core medium or rather small. December to March.

WILFONG.

From North Carolina. Tree vigorous, spreading.

Fruit below medium, oblate, depressed, greenish yellow, shaded with dark purplish red, indistinct splashes and stripes, light dots. Stalk short, stout. Calyx closed. Flesh whitish, rather firm, moderately juicy, tender, pleasant subacid. Good. Core small. December to March.

WILLIAM PENN.

From Columbia, Pa. Tree vigorous, upright spreading.

Fruit medium, roundish oblate, inclining to conic, yellow, shaded, splashed, striped, and mottled with bright red, many light dots. Stalk very short. Cavity considerably russeted. Calyx closed. Basin large, deep, slightly corrugated. Flesh yellowish, crisp, juicy, pleasant subacid, slightly aromatic. Good to very good. Core small. December to March.

WILLIAM'S FAVORITE.

William's Early.

William's Red.

A large and handsome dessert Apple. It originated at Roxbury, near Boston, Mass., bears abundantly, and ripens from the last of July to the first of September. An excellent market variety.

Fruit of medium size, roundish oblong conic, and a little one-sided. Stalk an inch long, slender, slightly sunk. Calyx closed, in a furrowed basin. Skin very smooth, of a light red ground, but nearly covered with a fine dark red. Flesh yellowish white, and of a very mild and agreeable flavor. Good. Requires a strong, rich soil.

WILLIAM'S PIPPIN.

Fruit below medium, somewhat conical, pale yellow, mottled with pale red in the sun. Flesh pale yellow, soft, pleasant subacid. Good to eat from the tree, and for baking and roasting. October, December. (Lindley.)

WILLIAM'S WHITE.

Origin, supposed Cumberland Co., Pa.

Fruit medium or below, oblate, slightly conic, whitish yellow, sprin-

kled with a few brown dots. Stalk short. Calyx small, closed. Flesh light yellow, tender, juicy, pleasant subacid. Good. August, September.

WILLIS'S RUSSET.

Origin, farm of Mr. Willis, Sudbury, Mass. Tree hardy, vigorous, and an abundant bearer.

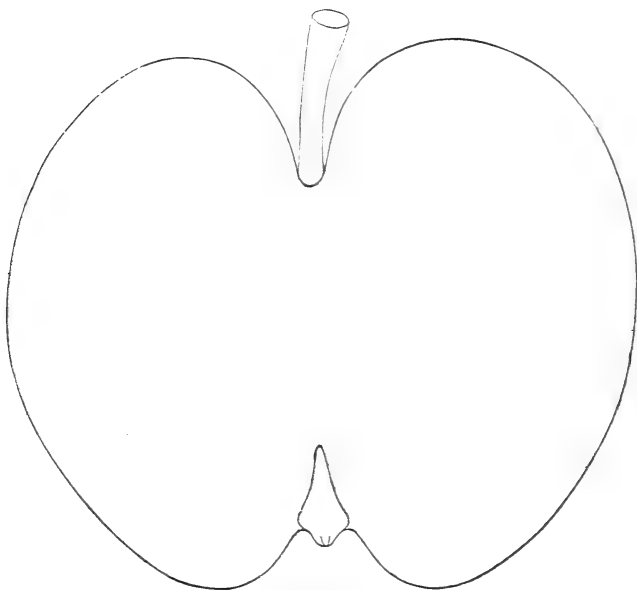
Fruit small, oblate conic, russet on a yellow ground, and occasionally a sunny cheek. Stalk long, slender, curved, set in a large cavity. Calyx closed. Basin shallow. Flesh tender, juicy, with a rich pear-like flavor. Very good. December, January.

WILLIS SWEET.

Pear Lot.

Pear-Tree Lot.

Origin on the farm of Edward Willis, Oyster Bay, Long Island. Tree a vigorous, spreading grower, productive. Young shoots rich, warm brown, slightly grayish.



Willis Sweet.

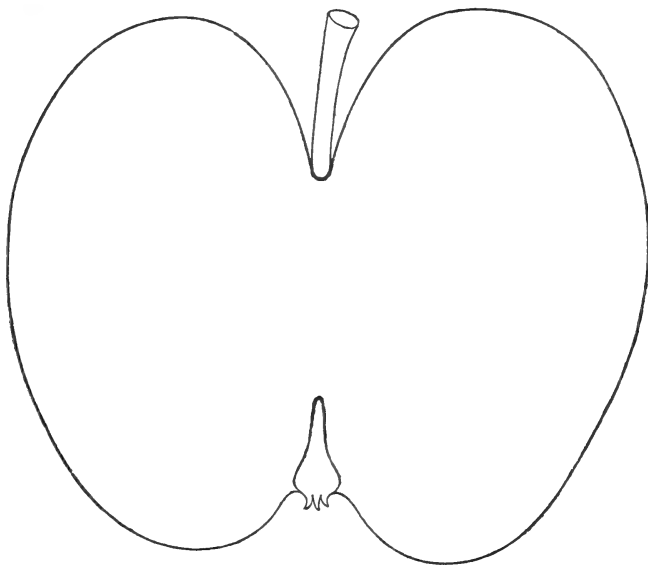
Fruit rather large, roundish, whitish, somewhat shaded with a thin light red, and blotched with crimson, few brown dots. Stalk short and stout. Calyx small, closed. Basin abrupt, furrowed. Flesh whitish, crisp, juicy, tender, sweet, and rich. Very good. Core large. August, September. Valuable for table, market, and culinary purposes.

WILLOW TWIG.

Willow.

James River.

Of unknown origin. The tree is a poor grower in the nursery, but makes a good spreading, somewhat drooping, orchard tree, quite hardy, and very productive, and although of only *good* quality, its keeping qualities, productiveness, and hardihood make it a profitable market Apple for rich prairie and bottom lands in the West. Young shoots slender, reddish brown, downy. Buds inconspicuous.



Willow Twig.

Fruit medium size, roundish, slightly conic, somewhat oblate, light yellow, shaded and marbled with dull red, and sprinkled with numerous russet dots. Stalk rather short and slender. Cavity narrow, sometimes partially closed, with a lip. Calyx partially closed, in a somewhat corrugated abrupt basin. Flesh yellowish green, not very tender, pleasant subacid. Good. Valuable for late keeping.

WILLSBORO.

Supposed origin, Willsboro, Essex, Co., N. Y.

Fruit medium, roundish conic, yellow, shaded, mottled, and marbled mostly with dull red. Flesh yellowish white, juicy, crisp, tender, sprightly subacid. December, February. (J. W. Bailey.)

WILMOT.

Wilmot's Seedling.

A sauce or cooking Apple described by Ronalds. Tree an upright, strong grower, productive.

Fruit medium, conical, yellow, with marblings of gray, and splashes of red. Flesh white, tender, juicy, fragrant subacid. July, August.

WILSON.

Of Michigan.

Fruit large, round, slightly conic, regular. Surface smooth, golden yellow. Dots scattered, dark. Flesh yellow, breaking, fine-grained, juicy, subacid, rich. January, February. (Warder.)

The same author describes another Apple under this name as from Western Virginia.

Fruit small, roundish oblate or oblate, smooth, nearly covered with very deep red, in which the stripes are almost obscured. Dots minute, white. Flesh white, fine-grained, crisp, tender, juicy, mild subacid. January.

WILSON'S SUMMER.

Origin, Forsyth Co., N. C. Tree upright, productive.

Fruit medium, roundish, slightly conic, greenish yellow, thickly striped with clear red. Flesh rich, juicy, fine-flavored. August, September. (Count. Gent.)

WILSON'S VOLUNTEER.

Fruit large, globular truncated or flattened, regular, yellow, mostly covered with mixed red, striped darker. Dots large, gray, and yellow. Flesh greenish yellow, tender, juicy subacid. December, February. (Warder.)

WINCHELL SWEET.

Origin, Hartford Co., Conn.

Fruit medium to large, oblate, greenish yellow, with a brownish shade in the sun, moderately sprinkled with gray dots. Stalk short. Calyx closed. Flesh whitish, rather firm, moderately juicy, sweet, and rich. Good. Core small. February to May. Valuable for cooking.

WINDHAM RUSSET.

An Apple from Massachusetts. Tree vigorous, upright spreading.

Fruit medium, roundish, inclining to conic, yellow, mostly covered with dull rough russet, often mixed with red in the sun, gray rough or raised dots. Stalk medium. Cavity deep, large. Calyx partially open. Flesh yellowish, rather firm, moderately juicy, mild subacid. Good. Core small. December to April.

WINE.

Hay's Winter.

Winter Wine.

Pennsylvania Red Streak.

English Red Streak, incorrectly.

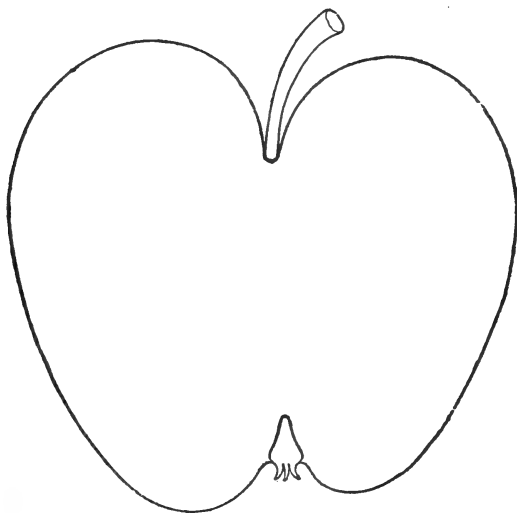
The Wine Apple is a very handsome, and an admirable winter fruit, a most abundant bearer, and a hardy tree. It is a native of Delaware. The tree has small leaves, grows thriftily, and makes a fine spreading head. Young shoots smooth grayish reddish brown.

Fruit rather above medium size—in rich soils large; form regular, nearly round, a little flattened at the ends. Skin smooth, of a lively deep red over a yellow ground, or more frequently with a few indistinct stripes of yellow. Stalk short, inserted in a round, smooth cavity, with a little russet around it. Flesh yellowish white, juicy, and crisp, with a rather vinous, rich, and pleasant flavor. Good to very good. Core small. October to March.

WINESAP.

Wine Sop? Potpie Apple.

This is not only a good Apple for the table, but it is also one of the very finest cider fruits, and its fruitfulness renders it a great favorite with orchardists. The tree grows rather irregularly, and does not form a handsome head, but it bears early, and the apples have the good quality of hanging late upon the trees without injury, while the tree thrives well on sandy, light soils. The tree is very hardy, and one of the most profitable orchard varieties wherever grown. Young wood reddish brown, with smooth red buds.



Winesap.

Fruit of medium size, rather roundish oblong. Skin smooth, of a fine dark red, with a few streaks, and a little yellow ground, appearing on the shady side. Stalk nearly an inch long, slender, set in an irregular cavity. Calyx small, placed in a regular basin, with fine plaits. Flesh yellow, firm, crisp, with a rich, high flavor. Very good. November to May.

WING SWEET.

An old variety, of unknown origin, profitable for stock feeding and cooking. Tree a moderate grower, spreading, and productive.

Fruit medium or below, roundish oblate conical, yellow, mostly shaded, splashed, and striped with dark red. Stalk long, slender. Calyx closed. Basin slightly corrugated. Flesh yellowish, tender, moderately juicy, sweet, rich, and pleasant. Good to very good. September to December.

WINN'S RUSSET.

Origin, Sweden, Me. Tree of slow growth, hardy and productive.

Fruit large. Cavity deep. Basin broad and shallow. Color dark russet, with obscure stripes of red, covered with whitish spots. Flesh fine-grained, subacid. Good. Keeps till May.

WINSLOW.

From Virginia.

Fruit large, globular, flattened at base, dark and light red streaked, light brown specks and dark flakes. Stalk short, slender. Calyx open. Flesh yellowish white, tender, juicy, subacid. Fall and early winter. (Elliott.)

WINTER CODLIN.

An English culinary Apple. Tree vigorous, upright spreading.

Fruit medium, roundish conic, whitish yellow, partially splashed, striped, and marbled with light red, few gray dots. Calyx closed. Basin slightly furrowed. Flesh white, rather firm, moderately juicy, subacid. Good. October to March.

WINTER COLMAN.

Norfolk Colman. Norfolk Storing.

A culinary Apple, described by Lindley as :

Fruit rather large, roundish oblate, pale yellow, deep red in the sun. Flesh firm, crisp, sharp subacid. November to March.

WINTER GRAY REINETTE.

Reinette Grise d'Hiver. Prager.	Reinette Grise Extra. Reinette Grise. Reinette Grise Française.	Belle Fille. Grauwe Franse Rennett.
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Among the Reinettes there is a world of confusion, and we feel no confidence in correctness until such time as they may be gathered and grown all in the same grounds. The present description of this variety is taken from Hogg. Tree healthy, vigorous, productive.

Fruit medium, roundish, flattened on the sides, broadest at base, dull yellowish green in the shade, with a patch of thin dull brownish red in the sun, which side is so covered with brown russet that little color is visible. Stalk very short. Calyx closed. Flesh yellow, firm, crisp, rich, juicy, sugary. November to May.

We have received and fruited a Winter Gray Reinette from Rivers, which is small, oblate, depressed, dull yellowish gray russet, indistinct raised dots. Stalk long, slender. Calyx closed. Flesh whitish, firm, moderately juicy, rich, brisk subacid. Good. December to May.

The Album of Pomology also describes a Winter Gray Reinette as large, roundish, dull pale yellow, overlaid with dull greenish russet.

WINTER HARVEY.

Winter Pippin. Autumn Pippin.

An old Eastern variety. Tree vigorous, upright, spreading, productive. Young shoots dark grayish reddish brown.

Fruit medium, roundish conic, slightly ribbed, greenish yellow, rarely with a shade of dull red in the sun. Stalk rather short. Calyx partially closed. Flesh white, tender, juicy, pleasant, mild subacid. Good. Core rather small. January to March.

WINTER HOG ISLAND SWEET.

Origin, Long Island. Tree moderately vigorous, productive.

Fruit medium or below, oblate inclining to conic, slightly ribbed, pale yellow, striped, splashed, and shaded with light and dark red, few light and brown dots. Stalk rather short. Calyx closed. Flesh yellowish, tender, moderately juicy, rather rich sweet. Good. Core small. November to February.

WINTER LADING.

A sauce Apple, from Sussex, England.

Fruit medium, roundish conical, green, with patches and dots of thin russet. Flesh greenish white, juicy, tender, sweet subacid. October, December. (Hogg.)

WINTER MAIDEN'S BLUSH.

From Bucks Co., Pennsylvania.

Fruit medium, oblong conic, yellow, covered with large, distinct, carmine dots. Stalk short. Calyx closed. Flesh white, crisp, tender, subacid. Very good. Core large. (Gar. Mon.)

WINTER MAJETTIN.

A Norfolk, England, Apple, described by Lindley as valuable for culinary uses.

Fruit medium, roundish ovate, ribbed at apex, yellowish green, with a dull brownish red in sun exposure. Flesh greenish white, firm, brisk, sharp subacid. December, February.

WINTER PEARMAIN.

Old Pearmain.	Parmain d'Hiver.
Pearmain.	Great Pearmain.
Pepin Parmain d'Hiver.	Pepin Parmain d'Angleterre.
Peremenes.	

This is one of the oldest Apples on record. The tree a free and healthy grower, and productive.

Fruit medium, conical, greenish, with lively deep red in the sun, russety dots. Flesh yellowish, firm, crisp, juicy, slightly aromatic. November to March.

There is grown in Illinois, and other Western States, an Apple under the various names of WINTER PEARMAN and RED PEARMAN, entirely distinct from above. The tree is vigorous, spreading, with slender branches. Young shoots moderately slender, grayish reddish brown, with downy buds.

Fruit medium, oblate, a little inclining to conic, yellowish, shaded, splashed, and striped with light and dark red. Stalk short. Calyx closed. Flesh yellowish, rather firm, crisp, juicy, rich subacid. Good. Core small. November, February.

There is another WINTER PEARMAN, grown in Pennsylvania, the fruit of which is below medium, oblate or roundish oblate, yellow, shaded and obscurely splashed with brownish red, few light dots. Stalk short. Calyx open. Flesh yellow, compact, moderately juicy, mild subacid. Good. Core small. January to May.

WINTER PIPPIN OF VERMONT.

Origin unknown, much cultivated in Vermont; a fair grower and productive.

Fruit large to very large, nearly globular, inclining to conic, obscurely ribbed, greenish yellow, sprinkled with star-like crimson dots, cheek shaded with dull crimson. Stalk short, inserted in a deep compressed cavity. Calyx small, nearly closed. Segments long, in a rather deep, uneven basin. Flesh white, tender, and agreeable. Good. November to March.

We have received a Winter Pippin from Michigan, where it was introduced from Western New York, but have not sufficiently tested it to decide as to its identity with the above.

WINTER REINETTE.

Weisse Antillische.

Winter Reinette.

A beautiful and excellent German dessert Apple.

Fruit large, oblong conical, lemon yellow, with blush red in the sun. Flesh yellowish, firm, juicy, sugary, vinous. December to March. (Diel.)

WINTER STRAWBERRY.

This variety is described by Ronalds as above medium size, roundish, yellow, splashed, shaded, and striped partially over with rich red. Flesh whitish, tender, juicy, subacid. December, January.

WINTER SWEET PARADISE.

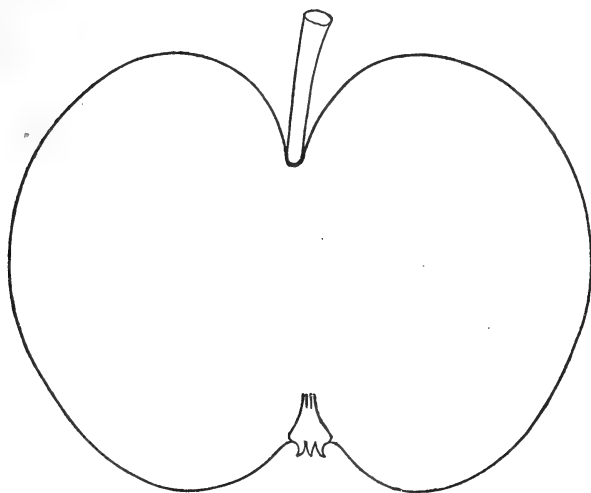
Paradise Winter Sweet.

Grandmother.

From Pennsylvania. The Winter Sweet Paradise is a productive and excellent orchard fruit, always fair, and of fine appearance. Tree hardy, upright, vigorous, not an early bearer. Young shoots reddish gray.

Fruit rather large, regularly formed, roundish oblate. Color dull green when picked, with a brownish blush, becoming a little paler at

maturity. Stalk short, set in a round cavity, often russeted. Calyx closed, small. Basin rather deep, slightly corrugated. Flesh white,



Winter Sweet Paradise.

fine-grained, juicy, sweet, sprightly, and very good. Core rather small. November to March.

WINTHROP GREENING.

Lincoln Pippin.

Howe Apple.

Origin, Winthrop, Me. Tree vigorous, upright spreading.

Fruit large, oblate, slightly ribbed, greenish yellow, with nettings and patches of russet, thickly sprinkled with light and gray dots. Stalk rather short. Calyx large, open. Flesh white, tender, juicy, rather rich subacid. Good. Core small. September.

WINTHROP PEARMAIN.

Origin, Winthrop, Me. Size large, roundish ovate. Skin yellow, striped with red, and deep red in the sun. Stem in a large cavity. Basin shallow. Flesh white, juicy. Flavor spicy and pleasant. September to January. (Me. P. S. R.)

WISNER.

Originated on the farm of — Wisner, Middletown, Orange Co., N. Y.

Fruit small, conical, greenish, shaded and striped with dull red. Flesh tender, juicy, pleasant subacid. Good. December, March.

WOODLAND.

A Southern variety.

Fruit full medium, oblate, yellowish green, sometimes striped red.

Dots few, minute. Calyx small, closed. Stalk medium to long. Flesh yellow, rather tough, but juicy, subacid. Good. Midwinter. (Am. Hort. An.)

WOODRING.

Originated in Fairfield Co., O. Tree a moderate grower, slender branches, early bearer.

Fruit below medium, roundish, yellow, mostly covered with red. Flesh white, juicy, subacid. Good. January to March.

WOOD'S GREENING.

Coate's Greening.

Onstine.

Cooke's Greening.

A native of New Jersey. Tree a moderate grower, hardy, somewhat spreading, productive.

Fruit medium, roundish oblate, yellowish green, with rough spots or patches. Stalk short. Calyx large. Flesh greenish white, fine-grained, tender, juicy, slightly subacid. Very good. Core small. January, February.

WOOD'S SWEET.

Hyde's Sweet.

Origin, Sudbury, Vt., and there considered the best fall sweet Apple in cultivation. Growth nearly equal to Baldwin, and productive.

Fruit large, irregularly oblate. Color whitish yellow, waxen or oily, shaded and striped with fine rich red. Stalk rather short, inserted in a broad, deep, furrowed cavity. Calyx small, closed, set in a rather deep open basin. Flesh white, tender, juicy, rich saccharine. Good to very good. September, November.

WOOLFOLKS.

Supposed Kentucky origin.

Fruit full medium, truncated, regular, yellow green, scattered gray dots. Flesh white, tender, breaking, juicy, subacid. Good. Table, kitchen. December to March. (Warder.)

WORMSLEY PIPPIN.

Knight's Codling.

An English fruit, middle-sized, roundish, tapering a little towards the eye, pale green or straw color, darker next the sun. Flesh white, crisp, firm, with a sharp subacid juice. Good. September.

WRIGHT.

Origin, Hubbardton, Vt. Tree vigorous and productive. Young wood olive brown.

Fruit medium, roundish oblate, lemon yellow. Stalk short, inserted in a deep cavity. Calyx closed. Basin rather large and corrugated.

Flesh white, very tender, juicy, vinous, almost sweet, aromatic. Good to very good. Middle of September to middle of October.

WRIGHT'S JANET.

Supposed to have originated near St. Louis, Mo.

Fruit medium to large, round, sometimes flat, regular, waxen yellow, mixed, striped, splashed carmine. Dots minute, prominent, scattering. Flesh deep yellow, breaking, fine-grained, juicy, subacid. Good to very good. January to June. (Warder.)

WYKEN PIPPIN.

Warwickshire Pippin.

Girkin Pippin.

Arley.

An old variety, originated near Coventry, England. Tree upright, hardy, and productive.

Fruit below medium, oblate conical, greenish yellow, with dull orange blush in sun, mottled and marbled and dotted with light russet patches and dots. Flesh yellowish, tender, juicy, sweet subacid. December, February. (Ron.)

YACHT.

Origin, Montgomery Co., Pa. Tree of moderate growth, a regular bearer.

Fruit medium, oblate, yellowish, shaded, splashed, and striped with two shades of red, large light dots. Stalk medium. Calyx partially closed. Flesh white, tender, pleasant, mild subacid. Good. Core small. November, January.

YADKIN.

Southern.

Fruit large, round, regular, red striped. Flesh white, dry, subacid. Only good. August. (Warder.)

YAHoola.

Origin, Lumpkin Co., Ga. Tree with slender, wiry limbs, a good bearer.

Fruit medium, oblate, yellow green, specked and streaked with russet. Stalk long, slender. Calyx and basin medium. Flesh juicy. Good. September to January. (White.)

YANKEE SPY.

Seedsville Sweet?

Dutchess County Sweet.

Ox Sweet.

Of unknown origin. Tree vigorous, upright spreading, productive.

Fruit medium, oblate, sometimes a little conic, deep yellow, sometimes a tinge of red in the sun, large brown dots. Stalk medium. Calyx closed. Basin furrowed. Flesh yellowish, moderately juicy, rich, sweet. Good. Core small. October, November. A valuable culinary sort.

YATES.

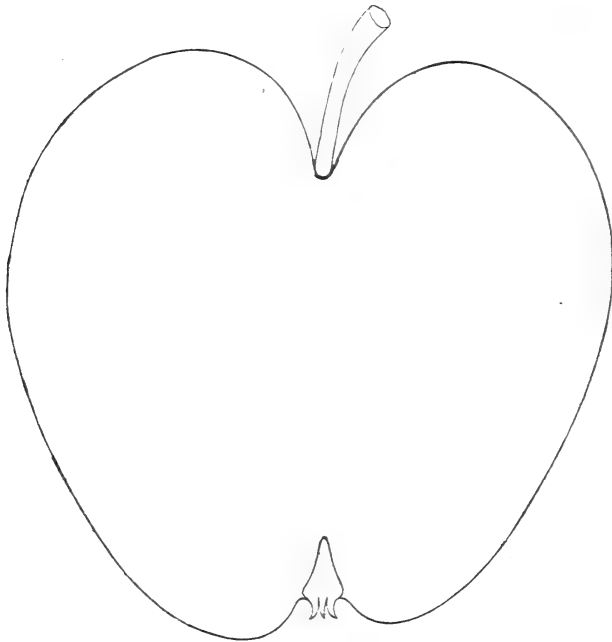
Originated in Fayette Co., Ga. Tree very upright grower, great bearer and good keeper.

Fruit small, oblate or oblate conic, whitish yellow, overspread, shaded, splashed, and striped with shades of red, many light dots. Stalk slender. Cavity large, slightly russeted. Calyx small, closed. Flesh white, sometimes stained next the skin, tender, juicy, pleasant subacid. Good. March to May.

YELLOW BELLFLOWER.

Bellefleur Yellow.	Belle Fleur.
Bishop's Pippin of Nova Scotia.	Lady Washington.
Reinette Musque.	Warren Pippin.

The Yellow Belle Fleur is a large, handsome, and excellent winter Apple, everywhere highly esteemed in the United States. It is most abundantly seen in the markets of Philadelphia, as it thrives well in the sandy soils of New Jersey. Coxe first described this fruit; the original tree of which grew in Burlington, N. J. Tree a moderately vigorous grower, forming a spreading, roundish, rather drooping head. Young wood yellowish brown. A regular and excellent bearer.



Yellow Bellflower.

Fruit very large, oblong, a little irregular, tapering to the eye. Skin smooth, pale lemon yellow, often with a blush next the sun. Stalk long

and slender, in a deep cavity. Calyx closed and set in a rather narrow, plaited basin. Seeds in a large hollow capsule or core. Flesh tender, juicy, crisp, with a sprightly subacid flavor; before fully ripe it is considerably acid. Very good. December, February.

YELLOW FOSTER.

Origin unknown. Received from Ohio. Tree very vigorous, spreading. Fruit below medium, oblate, yellow, thinly sprinkled with brown and green dots. Stalk short. Calyx closed. Flesh yellowish, rather coarse, moderately juicy, mild subacid. Good. October, November.

YELLOW INGESTRIE.

Fruit small, roundish oblate, clear bright gold color, without red. Flesh tender and delicate, with a plentiful juice when freshly gathered from the tree. Good. October.

YELLOW JUNE.

White June.

Of unknown Southern origin. Tree vigorous, upright grower, and abundant bearer. Young wood light reddish brown, slightly downy, very small buds.

Fruit below medium, roundish oblate, pale yellow, thickly sprinkled with green and brown dots. Stalk long, slender. Cavity slightly russeted. Flesh white, tender, juicy, brisk, sprightly subacid. Good. Core small. June, July, South. August at North.

YELLOW MEADOW.

A Southern fruit.

Fruit large, oblate, greenish yellow. Stalk rather slender, in a deep, irregular cavity. Calyx large and open, in a shallow basin. Flesh yellow, compact, vinous. Good. November.

YELLOW NEWTOWN PIPPIN.

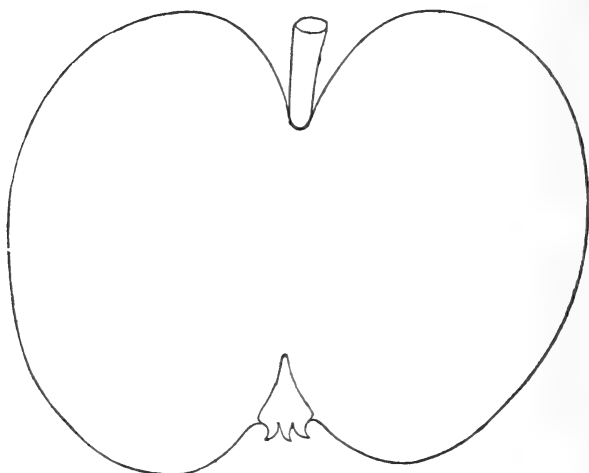
Albemarle Pippin.

The Yellow Newtown Pippin is handsomer in appearance, and has a higher perfume than the Green or Newtown Pippin, and its flesh is rather firmer, and equally high flavored; while the Green is more juicy, crisp, and tender. The Yellow Newtown Pippin is rather flatter, measuring only about two inches deep, and it is always quite oblique—projecting more on one side of the stalk than the other. When fully ripe it is yellow, sometimes with a rather lively red cheek, and a smooth skin, few or none of the spots on the Green variety, but with the same russet marks at the stalk. It is also more highly fragrant before and after it is cut than the Green. The flesh is firm, crisp, juicy, and with a very rich and high flavor. Both the Newtown Pippins grow alike, and they are both excellent bearers. This variety is rather hardier and succeeds best. February to May.

YELLOW SWEET.

A native Apple of unknown origin.

Fruit small, roundish, light yellow, with a few gray dots. Flesh white, rather tender, pleasant, sweet. Good. October, November.



Yellow Newtown Pippin.

YOPP'S FAVORITE.

From Georgia. Tree moderately vigorous, upright spreading.

Fruit large, roundish, slightly conic, greenish yellow, with a blush in the sun, sprinkled sparingly with russet dots, and a little russet about the stem. Calyx open, in a deep basin. Stalk short. Cavity deep. Flesh white, fine-grained, tender, juicy, subacid. Good. Core small. November.

YORK.

From Massachusetts. Valuable for culinary purposes.

Fruit medium, roundish conic, pale yellow, with a slight shade of red in the sun. Stalk short. Calyx closed. Flesh whitish, tender, juicy, sprightly subacid. Good to very good. Core small. October, November.

YORK IMPERIAL.

Johnson's Fine Winter.

Origin thought to be York Co., Pa. Tree moderately vigorous, productive. Young wood rich brown, downy.

Fruit medium, oblate oblique, whitish, shaded with crimson in the sun, thinly sprinkled with light and gray dots. Stalk short. Calyx closed or partially open. Basin large, deep. Flesh yellowish, firm, crisp, juicy, pleasant, mild subacid. Good to very good. Core compact, small. November, February.

YORKSHIRE GREENING.

Coate's.

Yorkshire Goose Sauce.

An English culinary Apple. Tree very vigorous and productive.

Fruit large, oblate, slightly ribbed, greenish, with shades and stripes of dull red, specks and traces of russet. Flesh greenish white, firm, crisp, brisk subacid. Good. October, November.

YOST.

A native of Berks Co., Pa. Tree large and spreading.

Fruit oblate, very much flattened, yellow, striped and shaded with crimson, thinly dotted with brown. Stalk short. Cavity slightly russeted. Calyx partially closed. Flesh yellowish, rather coarse, tender, juicy, pleasant subacid. Good. December, January.

ZANE.

Zane Greening.

Origin, Virginia.

Fruit large, roundish, dull greenish yellow. Flesh greenish white, tender, soft. Poor. February to June. (Elliott.)

ZIEBER.

Origin, Reading, Pa.

Fruit below medium, roundish, yellow, with a striped red cheek. Flesh dry, pleasant, hardly good.

ZOAR GREENING.

Origin, Ohio.

Fruit large, roundish conic, greenish, faintly shaded with dull red in the sun. Flesh white, tender, moderately juicy, pleasant subacid. Good. Core small. November, December.

SIBERIAN CRABS AND IMPROVED SIBERIAN APPLES.

THE varieties of Siberian Crab Apples (*Pyrus baccata*) have, heretofore, been mainly valued for their handsome flowers and the beautiful appearance of the tree when loaded with fruit.

Within the past year or two, however, considerable attention has been given to their cultivation by fruit-growers in our Western and Northwestern States, because of the superior hardihood of the trees. Large numbers of seedlings have been grown, some bearing full evidence of the paternity of the *Pyrus baccata*, others possessing more or less of the *Pyrus malus*, apparent more in the flesh and improved quality of the fruit, than in the habit of the trees. They are all valuable for cider, preserves, and cooking, and some of the improved varieties, more

truly, perhaps, Siberian Apples than Crabs, are quite pleasant and rich for the dessert. The great hardihood of the trees, and their productiveness, make them highly valuable for sections where the better varieties of the *Pyrus malus* do not succeed. In description of these varieties the terms "medium, large, or small," must be considered as applied in comparison with the Siberian Crab.

The common Siberian Crab is a beautiful little fruit, which is produced in rich clusters on the branches, and, at a distance, resembles large and handsome cherries. It is highly esteemed for preserving, and almost every large garden contains a tree of this variety. It forms a vigorous, neat tree, of rather small size, and its blossoms, which are white, are produced in beautiful profusion in spring, and a large crop of fruit regularly follows.

AKIN'S WINTER.

From Minnesota.

Fruit medium or small, roundish oblate, light, pale yellow, with a rich clear carmine red cheek in sun. Stalk long and slender, set in an open acute cavity, often russeted. Calyx closed. Basin deep, broad, and somewhat furrowed. Flesh yellowish white, juicy, crisp, somewhat too acid for a pleasant table apple, but not too much so for cooking. December.

ASTRACAN.

Evergreen Apple Crab.

Fruit medium, oblate, compressed, green, specked with white dots. Flesh greenish white, juicy. Inferior.

ASTRACHAN.

This is one of the very largest sized of the old varieties.

Fruit medium to large, roundish conical, bright rich clear red, with a fine light bloom. Calyx with long segments, prominent. Flesh whitish, crisp, juicy, sharp, brisk acid, tender. September.

CHASE'S WINTER SWEET.

Fruit medium size, roundish oblate, rich warm yellow ground, mostly overspread with dark rich red, minute dots. Stalk long, slender. Cavity broad, open, deep. Calyx half closed, with short, almost erect segments. Basin shallow, corrugated. Flesh yellowish, very firm, moderately juicy, mild, sweet. December.

CHERRY.

Fruit small, roundish ovate, pointed, light yellow, spotted and shaded with red. Flesh crisp, juicy, pleasant, hangs long, almost even to drying on the tree. September, October.

CHICAGO.

Origin near Marengo, Ill.

Fruit similar to Coral in general appearance—a little longer or more

completely oblong. Flesh not as deep colored as Coral, but quite crisp, sprightly subacid, and by many would be preferred to Coral, although it is not as rich. December to March.

CORAL.

This variety has the same origin as Chicago.

Fruit small, conical flattened at ends; rich warm yellow ground, with a vermilion cheek. Stalk long, slender, set in a narrow, acute cavity, slightly russeted. Calyx closed, surrounded with corrugated ridges, but with little or no basin. Flesh yellowish, crisp, sprightly, juicy, rich, mild subacid, almost tender. An early winter sort, keeping until about February.

CURRANT CRAB.

The fruits of this kind are of the size of currants, and are borne like them in clusters; they are round, a little compressed towards the ends. Color red, slightly striped with deep red. It is ornamental in its flowers as well as its fruits.

DOUBLE FLOWERING CHINESE CRAB.

Double Flowering Apple.

This very beautiful crab-tree from China, which produces a small green fruit, of no value, is highly admired for its showy blossoms. These are large, tipped with deep red in the bud, but when open are of a pale rose color, semi-double, large, and produced in fine clusters. It is an exceedingly ornamental, small tree, growing from ten to twenty feet in height.

DOUBLE WHITE SIBERIAN CRAB.

Fruit roundish, irregular, swollen on one side. Color red carmine on the sunny side, green on the shaded side, covered with a white bloom. Flowers large double white, very ornamental.

FOXLEY CRAB.

Raised by Thomas Andrew Knight, England, from seed of the Cherry Crab. Tree hardy. Fruit produced in clusters.

Fruit medium, roundish oblate, golden yellow. Stalk long. Flesh yellow, crisp, juicy, subacid.

FRAGRANT.

The flowers of this variety are very fragrant.

Fruit small, oblate, green, with whitish dots. Flesh inferior.

GENERAL GRANT.

Size large for a crab, round, oblate, warm yellow ground, with broken stripes of dark, becoming, on the sun-exposed side, entirely red, and very dark, almost black red, with a few minute light dots. Stalk slender. Cavity open, moderately deep. Calyx closed. Basin broad,

not deep, but conspicuously furrowed. Flesh white, moderately fine-grained, not juicy, very mild subacid. Core large for size of fruit. Late Autumn.

GOLDEN.

Fruit large, roundish oblate. Skin golden yellow. Stalk long, slender. Cavity medium. Calyx closed. Segments long, slender, recurved. Basin medium. Flesh white, moderately juicy, brisk acid. September.

HAMPTON'S SIBERIAN CRAB.

A beautiful variety, originated with Wm. C. Hampton, Hardin Co., O.

Fruit large for a Siberian Crab, ovate conical, deep rich crimson, blotched and indistinctly striped with clear orange and yellowish red. Blossoms large. This is one of the most beautiful of all the crabs, especially when in bloom.

HUTCHISON'S WINTER SWEET.

Fruit medium size, roundish oblate, light yellow ground, with a blush red cheek in the sun, and many minute dots. Stalk long, slender, in a deep open cavity. Calyx closed, with long pointed segments. Basin broad, deep, corrugated. Flesh yellowish white, dry, sweet. November.

HYSLOP.

This variety has been long and pretty extensively cultivated. The trees are hardy, the growth strong, rather spreading. Wood light colored, a little downy.

Fruit large, produced in clusters, roundish ovate, dark rich red, covered with a thick blue bloom. Stalk long, slender. Calyx closed. Flesh yellowish, subacid, good for culinary uses and for cider.

LADY CRAB.

This is a foreign variety, of great beauty, and the tree a vigorous, upright grower, much resembling the Lady Apple. Very productive. Young wood grayish reddish dark brown, with conspicuous white or gray dots.

Fruit small, roundish oblate, a little oblique, rich dark red, with traces of russet, and many apparently rough russet dots. Stalk medium length for a crab, quite slender. Cavity open, broad, deep russeted. Calyx almost closed, with connected half-recurved segments. Basin broad, shallow, distinctly corrugated next the calyx. Flesh yellowish, moderately juicy, mild subacid. November, December.

LARGE RED SIBERIAN CRAB.

This variety is about twice the size of the common Siberian Crab, roundish ovate, with a large and prominent calyx, and a pale red and yellow skin. It forms a larger tree, with rather coarser foliage than the common variety, and is esteemed for the same purposes. September and October.

LARGE YELLOW SIBERIAN CRAB.

Fruit similar in size to the foregoing, roundish oval, flattened at base and crown, light clear yellow often inclining to amber, with a warm cheek.

MAIDEN'S BLUSH.

Fruit small, flat, somewhat ribbed, pale clear yellow, with clear bright carmine red in sun. Calyx large, half closed. Basin broad, slightly furrowed. Flesh yellowish white, rather dry, almost sweet. Late Autumn.

MARENGO.

The discoverer of this variety, as well as its identity with the Siberian Crabs, *Pyrus baccata*, as a tree, is attributed to James F. Lester, Marengo, Ill. It is said to be a seedling found in the rows of an old seedling nursery of apple-stocks. The original tree is thought to be about eighteen years old. Young shoots vigorous, reddish brown, with the gray specks, bloom and scaly cuticle peculiar to the Siberian.

The fruit is large for its class; in form roundish, flattened at blossom end, bright warm red on yellow ground, smooth, with a few scattered gray or light russet dots. Flesh yellowish white, crisp, juicy, a little harsh until fully ripe, when it is a mild and pleasant subacid. Stalk long, slender, set in a narrow cavity. Calyx closed. Basin broad, open, corrugated. Early Winter to late in Spring.

MEADER'S WINTER.

Fruit medium size, roundish oblate; warm, light yellow ground, shaded with clear rich red, many large gray dots. Basin deep, broad, slightly ribbed or furrowed. Flesh yellowish, moderately juicy, crisp, tender, rich, sharp subacid. Season, Winter. A valuable cooking sort, and rich for cider.

MONTREAL BEAUTY.

This is one of the most beautiful of all Crabs, in appearance.

Fruit large, roundish oblate, bright yellow, mostly covered and shaded with rich red. Flesh yellowish, rich, firm, acid. September, October.

OBLONG-FRUITED SIBERIAN CRAB.

Fruit elongated conic, light yellow, almost white, washed, marbled, and striped with crimson and carmine, and covered with a thin bloom.

ORANGE.

Fruit medium, round, slightly flattened at ends; light, warm yellow, or light orange-colored. Stalk slender. Cavity open, deep. Calyx closed. Basin furrowed. Flesh yellowish white, mild subacid, pleasant, a little dry.

POWERS' LARGE.

Originated with Hiram Powers, Catskill, N. Y. Tree vigorous, hardy, and productive.

Fruit large, roundish oblate, waxen white, shaded and striped with carmine, crimson, and yellow, and covered with a lilac bloom. Flesh sharp, yet mild acid. Fine for cooking. Early October.

PURPLE SIBERIAN CRAB.

Fruit oblate. Color beautiful reddish purple on the sunny side, covered with a bloom, the shaded side less brilliant, and the whole surface speckled with some gray dots. Flesh, like all the crabs, coarse and harsh.

RED SIBERIAN CRAB.

Fruit about three-fourths of an inch in diameter, very regularly formed, and rather flat. Skin smooth, of a lively scarlet over a clear yellow ground, and, when the bloom is rubbed off, is highly polished. Stalk nearly two inches long, and very slender. Calyx small, slightly sunk. Fit for preserving in September and October.

ROUEN TRANSPARENT CRAB.

Fruit small, oblate, bright carmine red on light yellow. Stalk slender, very long, set in a deep wide cavity. Flesh yellowish white, acid. September.

SHOWY CRAB.

Fruit small, roundish oval, yellow, dotted with red in sun. Stalk very long. Flesh dry. Not valuable.

SOULARD.

A sort of little value except in appearance. It is said to have originated near St. Louis, Mo.

Fruit medium, oblate, clear smooth greenish yellow, with many minute, suffused, dark green dots. Stalk short for a crab, slender, narrow cavity. Calyx small, closed. Basin medium, slightly corrugated. Flesh white, bitter, astringent, unfit for anything except cider.

STRIPED SIBERIAN CRAB.

Fruit medium size, roundish. Color rose yellowish, red striped all over, carmine on the sunny side, more yellow towards the stalk, covered with a fine white bloom.

TRANSCENDENT.

This is one of the best of early autumn varieties.

Fruit medium to large for its class, roundish oblong, flattened at its ends, slightly but regularly ribbed, golden yellow, with a rich crimson,

red cheek in the sun, covered with a delicate white bloom; when fully ripe the red nearly covers the whole surface. Stalk long and slender, set in an open, deep cavity. Calyx closed, with long reflexed segments. Flesh creamy yellow, crisp, subacid, a little astringent until fully mellow, when it is pleasant and agreeable. Early Autumn.

WARFEL CRAB.

Originated with John Warfel, Lancaster, Pa. Tree vigorous.

Fruit medium size, oblate, yellow, beautifully striped with red and crimson.

WHITE WINTER.

Fruit medium size, roundish oblate, light pale yellow, with a faint blush and a few scattering, irregular-sized, dark carmine dots in sun. Stem short. Cavity very broad, open, yet deep, slightly russeted. Calyx closed, with short segments. Basin shallow, with slight broad furrows. Flesh yellowish white, crisp, moderately juicy, sharp acid. December and January.

YELLOW SIBERIAN CRAB.

Amber Crab.

This scarcely differs from the common Siberian Crab except in its fruit, which is rather larger, and of a fine amber or golden yellow. Both this and the red are beautiful ornaments to the fruit garden in summer and autumn, and are equally esteemed for preserves and jellies. September.

SELECT LIST OF VARIETIES FOR TABLE USE, MARKETING, COOKING, AND KEEPING.

In this list it is not assumed that all against which the word market is written are equally profitable, but that their size and appearance will generally command for them a ready sale. Again, some varieties are classed as market sorts mainly because of their long keeping, and therefore coming into use when there are but few sorts with which to compete. Soil and climate make so great a change in the growth, quality, and period of maturity of varieties, that it is impossible to make a list adapted to general cultivation; and so, kinds which, because of their good quality (like the American Golden Russet), which we mark as only for table use, in some localities are found also profitable for market. The planter, in selecting from this list, should be guided somewhat in adopting kinds by a record of the place of origin of the variety, which may be found on the page where the Apple is described in the book.

We have appended the words "South" and "North" to some varieties, to designate them as of most value in our Southern or Northern States.

- American Golden Pippin. Table and market.
 American Golden Russet. Table.
 American Summer Pearmain. Table.
 Baldwin. Table and market.
 Baltimore. Table and market.
 Belmont. Table.
 Ben Davis. Market, South and Southwest.
 Benoni. Table and market.
 Bentley Sweet. Market and keeping.
 Bethlehemite. Table and market.
 Bonum. Table and market.
 Broadwell. Table and market.
 Buckingham. Table and market.
 Campfield. Cider, market, and keeper.
 Canada Reinette. Table and market.
 Carolina Red June. Table and market.
 Cogswell. Table and market.
 Domine. Table and market.
 Dutchess of Oldenburgh. Cooking and market.
 Dyer. Table.
 Early Harvest. Table and market.
 Early Joe. Table.
 Early Strawberry. Table and market.
 English Russet. Market and keeper.
 Esopus Spitzenburgh. Table and market.
 Evening Party. Table and market.
 Fallowater. Market and cooking.
 Fall Pippin. Table and market.
 Fall Wine. Table.
 Fameuse. Table and market.
 Garden Royal. Table.
 Gilpin. Market and keeper.
 Golden Sweet. Market and cooking.
 Gravenstein. Market and cooking.
 Green Cheese. Table and market, South.
 Grimes' Golden Pippin. Table and market.
 Hall. Table and market, South.
 Haskell Sweet. Table.
 Higby Sweet. Table.
 High Top Sweet. Market, West.
 Horse. Market and cooking, South.
 Hubbardston Nonsuch. Table and market.
 Hunt's Russet. Table.
 Jersey Sweet. Table and market.
 Jonathan. Table and market.
 Keswick Codlin. Market and cooking.
 King of Tompkins Co. Table and market.
 Klapproth. Table and market.
 Lady Apple. Table and market.
 Lady's Sweet. Table and market.
 Large Yellow Bough. Table and market.
 Late Strawberry. Table and market.
 Lowell. Market and cooking.

- McLellan. Table.
Maiden's Blush. Market and cooking.
Mangum. Table, South.
Maverack Sweet. Market and cooking, South.
Melon. Table.
Monmouth Pippin. Table and market.
Mother. Table.
Newtown Pippin. Table and market.
Newtown Spitzenburgh. Table and market.
Nickajack. Market and keeper, South.
Northern Spy. Table and market.
Ohio Nonpareil. Table and market.
Peach Pond Sweet. Table, market, and cooking.
Peck's Pleasant. Table and market.
Pomme Grise. Table and market, North.
Porter. Table and market.
Pimate. Table.
Pryor's Red. Table and market, South and West.
Rambo. Table and market.
Rawles Janet. Table, market, and keeper, Southwest.
Red Astrachan. Market and cooking.
Red Canada. Table and market.
Rhode Island Greening. Market and cooking.
Ribston Pippin. Table and market, North.
Roxbury Russet. Market and keeper, North and West.
Shockley. Market and keeper, South.
Smith's Cider. Market.
Smokehouse. Market and cooking.
Striped Winter Pearmain. Table and market, South and Southwest.
Summer Pippin. Market and cooking.
Summer Queen. Market.
Summer Rose. Table.
Swaar. Table.
Tetofsky. Market and cooking.
Tewksbury Winter Blush. Table, market, and keeping.
Tolman's Sweet. Market and cooking.
Wagener. Table.
Washington Strawberry. Table and market.
Westfield Seek-no-Further. Table and market.
White Pippin. Table and market.
Willis Sweet. Cooking, table, and market.
Willow Twig. Market and keeper, West and South.
Winesap. Table, market, and keeper.
Winter Sweet Paradise. Table.
Yellow Bellflower. Table and market.
Yellow Newtown Pippin. Table and market.

CHAPTER X.

THE ALMOND.

Amygdalus communis, Dec. *Rosaceæ*, of botanists.
Amandier, of the French; *Mandelbaum*, German; *Mandorlo*, Italian;
Almendro, Spanish.

THE Almond-tree, which is a native of the north of Africa and the mountains of Asia, has long been cultivated, and is mentioned in Scripture as one of the charms of the fertile land of Canaan. It so strongly resembles the peach-tree that it is difficult to distinguish it by the leaves and wood only; indeed, several botanists are of opinion, from experiments made in raising the almond from seed, that this tree and the peach are originally the same species, and that the rich and luscious peach is the effect of accidental variation, produced by culture on the almond. The chief distinction between the two in our gardens lies in the fruit, which, in the almond, consists of little more than a stone covered with a thick, dry, woolly skin, while the peach has in addition a rich and luscious flesh. The blossoms of the almond resemble those of the peach, but are larger; they are produced in great profusion, early in the season, before the leaves, and are very ornamental.

Uses. The kernel of the sweet almond is highly esteemed as an article of food, and is largely used as an ingredient in confectionery, cookery, and perfumery. It is raised in great quantities in the south of Europe, especially in Portugal, and is an important article of commerce. The bitter almond is used in cookery and confectionery, and in medicine; it furnishes the prussic acid of the shops, one of the most powerful of poisons. From both species an oil is also obtained.

In France the almond is preferred as a stock on which to bud and graft the peach, which in a very dry climate or chalky soil, it is found, renders the latter more healthy and fruitful than its own bottom. The sweet hard-shelled variety (*Douce à coque dure*) is preferred for stocks by French nurserymen.

Cultivation. The almond thrives best in a warm dry soil, and its general cultivation in this country is precisely like that of the peach. The sweet almond is the only variety considered of value here, and it is usually propagated by budding it on Plum stock, or on the bitter almond seedlings. It is rather more hardy at the North when budded on the former, and as the buds of the sweet almond are rather slender and small, the plum stocks to be budded should be thrifty seedlings, not more than a fourth of an inch in diameter at the place where the bud is inserted.

The Common Almond, the Hard-Shell Sweet Almond, and the Bitter Almond, are hardy in the latitude of New York, and will bear tolerable crops without care. The Soft-shell Sweet Almond, or Ladies' Almond, will not thrive well in the open garden, as a standard, north of Philadelphia; but they succeed well trained to a wall or on espalier rails in a warm situation, the branches being slightly protected in winter.

There is no apparent reason why the culture of the almond should not be pursued to a profitable extent in the warm and favorable climate

of some of the Southern States. Especially in the valley of the Ohio and Tennessee it would be likely to succeed admirably.

BITTER ALMOND.

The Bitter Almond has large pale blossoms, differing little from the common almond except in the kernel, which is bitter. There are two varieties, one with a hard, and the other with a brittle shell. The fruit, which is produced abundantly, ripens in September. The leaves are longer and of a darker green than those of most of the sweet-fruited varieties.

COMMON ALMOND.

A. c. dulcis.	Amande commune.
Amandier à Petit Fruit.	Common Sweet.
----- commun.	

This is the common Sweet Almond of France and the South of Europe, and is one of the most hardy and productive sorts here. Nuts hard, smooth, about an inch and a quarter long, compressed and pointed, of an agreeable flavor, but inferior to the following. Flowers expand before the leaves. Ripens last of September.

PEACH ALMOND.

Pêcher.	Peach Almond.
Amandier-Pêcher.	

A rather indifferent variety, nearly sweet, but often slightly bitter. It is a true cross between the peach and the almond, and in its leaves, flowers, and stone strongly resembles the peach; the fruit is also pulpy and of tolerable flavor, like an indifferent peach. The nut scarcely ever ripens well as far north as this.

PISTACHIA SWEET ALMOND.

Amande Pistache.	Amandier Pistache.
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A variety of Almond with a very small pointed fruit, about the size and shape of that of a Pistachia, enclosing a kernel of a delicate sweet flavor. The shell not quite so soft as the Soft-Shell Almond. This is scarcely known yet in this country, but is worth further trial at the South.

SOFT-SHELL SWEET ALMOND.

Doux à coque tendre.	Amandier des Dames,
Sultan à coque tendre.	Ou Amande Princesse.
Amandier à coque tendre.	Ladies' Thin Shell.
----- des Dames.	

The Soft-Shell or Ladies' Almond is the finest of all the Almonds. It is the very variety common in the shops of the confectioners, with a shell so thin as to be easily crushed between the fingers, and the kernel of which is so highly esteemed at the dessert. It ripens early in the season, and is also highly esteemed in a young or fresh state, being served on the table for this purpose about the middle of July in Paris. The

blossoms of this variety expand at the same time with the leaves, and are more deeply tinged with red than the foregoing. Several varieties are made of this in France, but they are (as quoted above) all essentially the same.

Fruit two inches long, oval, compressed. The nut is more than an inch long, oval, pointed, one-sided, with a light-colored, porous, very tender shell. The kernel sweet and rich.

On the plum stock, in a favorable aspect, this Almond succeeds, with a little care, in the Middle States.

SULTANA SWEET ALMOND.

Amande Sultane.
Sultan.

Amandier Sultane.

A tender-shelled Almond of excellent quality, with smaller fruit and narrower kernel than the Soft-Shell Almond, but of equally excellent flavor, and which is preferred by many. It is thought by Poiteau to be scarcely different from the Soft-Shell or Ladies' Almond.

THE LONG HARD-SHELL ALMOND.

Amandier à gros fruit.

Amandier à gros fruit dur.

A variety with handsome, large, pale rose-colored flowers, opening before the leaves, and large and long fruit, a third longer than other varieties. The stone is about as large as the soft-shell variety, but the kernel is larger and plumper. This is a good hardy sort, and it is very ornamental when in blossom. Ripens about the last of September.

ORNAMENTAL VARIETIES. The *Dwarf Double Flowering Almond* (*Amygdalus pumila*. Lin. *Prunus sinensis* of some) is a beautiful, well-known low shrub, extremely ornamental in spring, being covered with a profusion of small pink blossoms, very double. There is also a Double White, similar in habit of growth.

The Large Double Flowering Almond (*A. à grand fleur*, *N. Duh.*) (*A. communis pleno*) is a beautiful French variety, with large nearly white flowers, two inches in diameter. It also bears a good small hard-shell Almond.

KEY TO FRENCH NAMES.

APPLES.

Court Pendu Plat.—Coor Pahn du Plah.
Drap d'Or—Drah dor.
Fenouillet Gris.—Fen-nool-yai Gree.
Male Carle.—Mal Carl.
Pomme de Neige.—Pum de Naije.
Reinette Blanche d'Espagne.—Ren-ett-Blansh d'Espagne.
Reinette Triomphante.—Ren-ett Tre-ome-fant.

APRICOTS.

Albergier.—Al-bare-je-ai.
Briançon.—Bre-ahn-sohn.
Belle de Choisy.—Bel de Shwoi-sey.
Belle Magnifique.—Bel Man-gne-feek.
Bigarreau.—Be-gar-ro.
Bigarreau Rouge.—Be-gar-ro Rooje.
Bigarreau Couleur de Chair.—Be-gar-ro Coo-lur de Shair.
Bigarreau Gros Cœuret.—Be-gar-ro Gro Keur-ai.
Bigarreau Tardif de Hildesheim.—Be-gar-ro Tar-deef de Hildesheim.
Gros Bigarreau Rouge.—Gro Be-gar-ro Rooje.
Griotte d'Espagne.—Gre-ote Des-pan.

GRAPES.

Chasselas Musqué.—Shah-slah Meuskay.
Chasselas de Fontainebleau.—Shah-slah de Fone-tane-blo.
Ciotat.—Se-o-tah.
Lenoir.—Lun-war.

NECTARINES.

Brugnon Violet Musqué.—Brune-yon Ve-o-lay Meus-kay.
Brugnon Musqué.—Brune-yon Meus-kay.
D'Angleterre.—Dahn-glet-are.
Duc du Tellier.—Deuk du Tel-yay.

PEACHES.

Abricotée.—Ab-re-co-tay.
Belle de Vitry.—Bell de Ve-tree.
Grosse Mignonne.—Groce Mene-yon.
Madeleine de Courson.—Mad-lane de Coor-son.
Pavie de Pompone.—Pah-vee de Pom-pone.
Pourprée Hâtive.—Poor-pray Hat-eve.
Sanguinole à Chair adhérente.—Sahn-gwe-nole ah Shair Ad-hay-rent.

FEARS.

- Amiré Joannet.—Am-e-ray Jo-ahn-nay.
 Ananas.—An-an-ah.
 Ananas d'Été.—An-au-ah Da-tay.
 Angleterre.—Ahn-glet-are.
 Beurré.—Bur-ray.
 Belle de Bruxelles.—Bel-de Broos-ell.
 Belle et Bonne.—Bel-a-Bun.
 Belle-Lucrative.—Bel-lu-crah-teve.
 Beurré de Capiumont.—Bur-ray de Cap-u-mohu.
 Beurré d'Amalis.—Bur-ray Dah-mah-lee.
 Beurré Gris d'Hiver Nouveau.—Bur-ray Gree Dee-vair Noo-vo.
 Beurré Diel.—Bur-ray De-ell.
 Beurré Bronzée.—Bur-ray Brone-zay.
 Bezi d'Heri.—Ba-zee Daree.
 Bezi Vaet.—Bazee Vah-ai.
 Beurré Crapaud.—Bur-ray Crah-po.
 Bezi de Montigny.—Bay-zee de Mon-teen-gnee.
 Bon Chrétien Fondante.—Bone Cray-te-an Fone-donte.
 Boucquia.—Boo-kiah.
 Calebasse Grosse.—Cal-bass Groce.
 Capucin.—Cap-u-san.
 Chaumontel très Gros.—Sho-mone-tell tray Gro.
 Compte de Lamay.—Conte de Lah-me.
 Colmar Épine.—Cole-mar A-peen.
 Crassane.—Cras-sahn.
 Cuisse Madame.—Kuees Mah-dam.
 D'Amour.—Dam-oor.
 De Louvain.—Dul-oo-van.
 Délices d'Hardenpont.—Day-lece Dar-dahn-pone.
 Doyenné d'Été.—Dwoy-on-nay Day-tay.
 Doyenné Panaché.—Dwoy-on-nay Pan-ah-Shay.
 Dumortier.—Du-mor-te-ay.
 Duchesse d'Angoulême.—Du-shess Dong-goo-lame.
 Duchesse d'Orléans.—Du-shess Dor-lay-on.
 Enfant Prodige.—On-font Pro-deeje.
 Épine d'Été.—A-peen day-tay.
 Figue de Naples.—Feeg de Nah-pl.
 Fondante d'Automne.—Fone-donte do-tonn.
 Forme de Délices.—Form de Day-lece.
 Forelle.—Fo-rel.
 Fondante du Bois.—Fone-dont du Bwoi.
 Fortunée.—For-tu-nay.
 Franc Réal d'Hiver.—Fronk Ray-ahl Dee-vair.
 Glout Morceau.—Gloo Mor-so.
 Héricart.—Hay-re-car.
 Jalousie.—Jal-oo-zee.
 Jalousie de Fontenay Vendée.—Jal-oo-zee de Fone-ten-ai Von-day.
 Léon le Clerc.—Lay-on le Clair.
 Limon.—Lee-mohn.
 Louise Bonne.—Loo-eze Bun.
 Madeleine, or Citron des Carmes.—Mad-lane, or Cee-trone day Carn.
 Marie Louise.—Mah-re Loo-eze.
 Michaux.—Me-sho.
 Passans de Portugal.—Pah-sahn de Por-tu-gal.
 Pailleau.—Pahl-yo.
 Paradise d'Automne.—Par-ah-deze do-tonn.
 Passe Colmar.—Pass Col-mar.
 Quilletette.—Keel-tet.

Reine Caroline.—Rane Car-o-lene.
 Reine des Poires.—Rane day Pwore.
 Rousselet Hâtif.—Roos-lay Hat-eef.
 Sanspeau.—Sahn-po.
 Sieulle.—See-ull.
 Sucrée de Hoyerswarda.—Seu-cray de Hoyerswarda.
 Surpasse Virgalieu.—Seur-pass Vere-gal-yu.
 St. Germain.—San Jare-man.
 Sylvange.—Seel-vonje.
 Vallée Franche.—Vol-lay Fronsh.
 Verte Longue.—Vairt Longh.
 Verte Longue Panachée.—Vairt Longh Pan-ah-shay.
 Virgouleuse.—Vere-goo-leuz.
 Wilhelmine.—Wil-el-meen.

PLUMS.

Abricotée Rouge.—Ab-re-co-tay Rooje.
 Diaprée Rouge.—De-ah-pray Rooje.
 Drap d'Or.—Drah-dor.
 Jaune Hâtive.—Jaun Hat-eve.
 Mirabelle.—Me-rah-bell.
 Précoce de Tours.—Pray-cose de Toor.
 Prune Suisse.—Prune Su-ece.
 Royale Hâtive.—Rwoy-al Hat-eve.



INDEX TO ALMONDS AND APPLES.

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[The standard names are in Roman letters. The synonymous names in *Italic*.]

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APPENDIX.

FOR specimens of Fruit, and information relating to many of the varieties in this Appendix, I am indebted to many of the leading Pomologists in many parts of the country, who will please accept my cordial thanks.

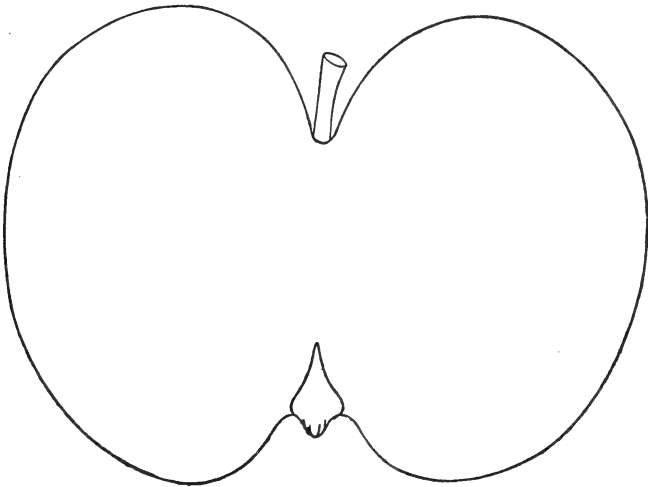
CHARLES DOWNING.

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THE APPLE.

AUTUMN POMME GRIS.

ORIGINATED in the orchard of William Reynolds, Markham, Ontario. Tree a strong upright grower, very productive. Fruit small, oblate, inclining to conic; skin yellow, nearly covered with thin nettings of russet, sometimes a shade of rich red in the sun; stalk long, slender, inserted in a medium cavity; calyx closed; basin broad, shallow, dis-



Baltzley.

tinctly and peculiarly corrugated; flesh fine, yellowish, tender, moderately juicy, rich, sprightly subacid and aromatic; very good; core small. October and November.

BALTZLEY.

Baltzley's Sweet.

Originated on the farm of John Baltzley, Manellan Township, Pa. Tree moderately vigorous, spreading, an early bearer, very productive every other year, and a small crop alternate ones; an old apple, but a favorite where known; young shoots light reddish brown, many russet dots.

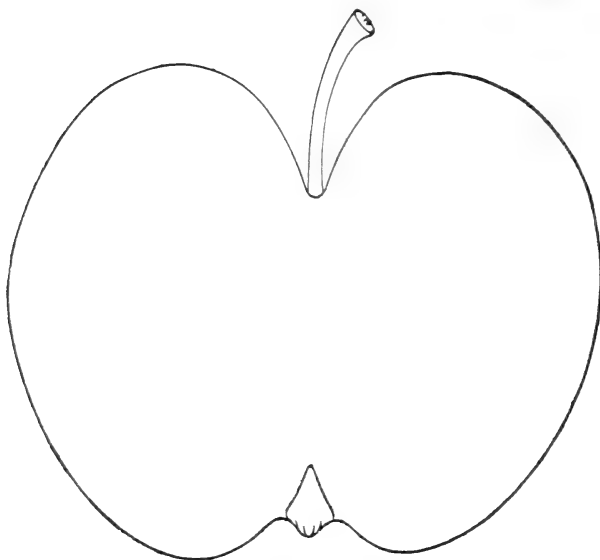
Fruit rather large, oblate or roundish oblate, nearly regular; skin pale yellow, often with a shade of light pale red in the sun, and a few grayish dots; stalk rather short, small; cavity large, deep; calyx closed; basin large, deep, slightly corrugated; flesh white, half fine, tender, moderately juicy, rather rich, sweet; good to very good. September, October.

BELLE DU HAVRE.

Belle Douce du Havre.

A promising French variety. Tree hardy, vigorous, upright, an early and abundant bearer annually; a good table fruit, and excellent for culinary uses; young shoots reddish brown, slightly downy at the end.

Fruit medium to large, roundish oblate, conical; angular or slightly



Belle du Havre.

ribbed; skin pale greenish yellow, shaded and rather obscurely striped and splashed with light and dark rich red over most of the surface, and many light brown dots; stalk medium, slender; cavity large, deep;

calyx closed; basin rather large, corrugated; flesh quite white, fine, tender, moderately juicy, with a brisk, peculiar, quince-like flavor; good to very good; core small. Ripe last of August to last of September.

BELL'S SEEDLING.

Originated with the late Z. Bell, near Adairville, Kentucky. Tree a vigorous grower, making a large, handsome round head; comes into bearing tolerably early, and rarely fails to produce a crop of fair fruit, and is popular where known.

Fruit medium or above, roundish, inclining to roundish oblong, slightly angular; skin entirely covered with light red, striped and splashed with dark red and a few light dots; stalk short, slender; cavity deep, acute, russeted; calyx closed or partially open; basin rather deep, medium size; flesh whitish, half fine, tender, juicy, sprightly subacid; good to very good; core medium. September, October.

BLENHEIM PIPPIN.

Blenheim Orange.
Woodstock Pippin.

Blooming Orange.
Northwick Pippin.
Dutch Mignonne, erroneously.

Blenheim.
Kempster's Pippin.

An error having been made in the second revised edition of this work with this variety, Dutch Mignonne and Blooming Orange,—the last being a syn.,—we give a corrected description.

An old variety which originated in Oxfordshire, England. Tree very strong, vigorous, spreading, somewhat drooping when in full bearing, and makes a large handsome tree in the orchard. It is late coming into bearing, but when fully established is a good regular bearer. This apple is a favorite in England, and succeeds in most localities here in the Middle and Northern States, especially the latter. Young wood stout, reddish brown.

Fruit large, often very large, roundish oblate, regular, skin dull orange, half covered or more with rich dull red, often mixed with russet, dotted and mottled with large yellow russet specks, some of which are areole; stalk rather short, slender, curved; cavity large, deep, russeted, the russet sometimes extending in rays out on the fruit; calyx large, open; basin broad, large, rather deep, slightly corrugated; flesh white, a little coarse—at first firm—but becoming crisp, tender, juicy, rich, brisk subacid, slightly aromatic; core small, very good. November, February.

BOYD.

Origin supposed to be on the McPherson farm, Monroe County, Kentucky, and introduced by Alfred and Thomas Boyd. Tree a strong, spreading, rather straggling grower, and productive.

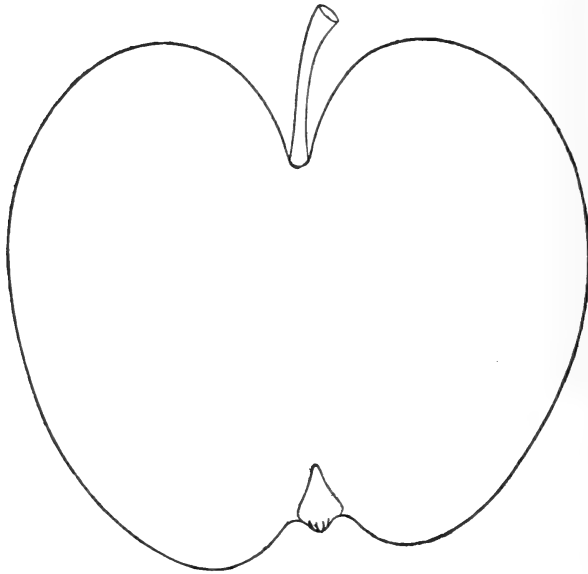
Fruit large, oblate, slightly conic; skin yellow, shaded with light and dark red, deep rich red in the sun, sometimes obscure splashes and stripes and moderately sprinkled with light and brown dots; stalk very short; cavity large, broad, deep, often slightly russeted; calyx closed

or half open; basin rather large and smooth; flesh yellowish, a little coarse, rather firm, moderately juicy, rather rich subacid, slightly aromatic; good to very good; core small. January to April.

BUNKER HILL.

Originated in the orchard of the late Dr. Paige, of Dryden, New York. Tree a healthy, rapid grower, an early and abundant bearer, and valued where known.

Fruit medium, roundish conical, regular; skin pale whitish yellow, shaded, mottled, striped and splashed with two shades of red, rather thinly over two-thirds the surface, and moderately sprinkled with light dots, a



Bunker Hill.

few being areole; stalk short, slender; cavity medium or large, a little greenish; calyx closed; basin medium, slightly corrugated; flesh quite white, sometimes a little stained next the skin, fine, tender, juicy, subacid, vinous, slight quince-like flavor; very good; core rather small. October.

BUZBY'S EARLY.

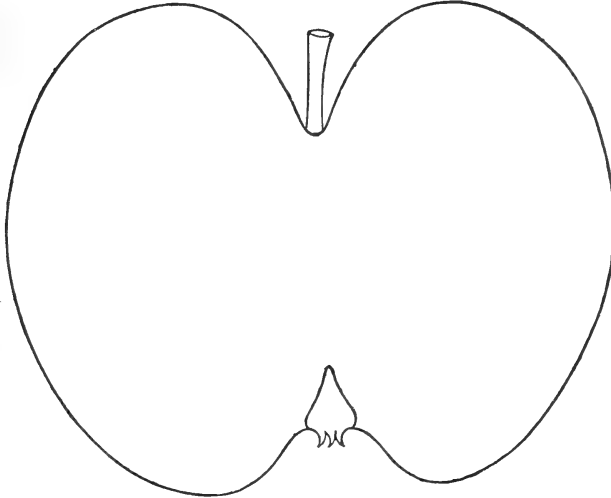
Origin uncertain, supposed to be Moorestown, New Jersey. Tree a moderate grower, rather spreading, very productive alternate years.

Fruit below medium, roundish oblate; skin pale yellow, thinly shaded, striped and splashed with light red over half the surface; stalk short, small; cavity large, deep; calyx closed; basin quite deep, slightly corrugated; flesh whitish, fine, crisp, tender, juicy, mild subacid; good to very good; core small. Last of August and September.

CADWALLADER'S GOLDEN.

Originated on the farm of James Simmons, near Greenbush, Warren County, Illinois, and introduced by E. F. Cadwallader, Paola, Kansas, who states that the tree is hardy, a strong, vigorous grower, spreading, an early and prolific bearer, and valuable for market and culinary uses.

Fruit medium, oblate or roundish oblate; skin bright yellow, sometimes with a slight blush, moderately sprinkled with dark grayish dots;



Cadwallader's Golden.

stalk rather short, slender; cavity quite large, deep, sometimes slight russet; calyx closed or half open; basin large, deep, slightly corrugated; flesh yellowish white, half fine, tender, juicy, mild, pleasant subacid; good to very good; core small. October, February.

CALKINS' PIPPIN.

Originated with the late Elias Calkins, of West Cornwallis, Nova Scotia. Tree vigorous; forms a large round head, with drooping branches; an early and heavy bearer alternate years; is valuable for market and culinary uses.

Fruit large, roundish conical, sometimes oblong, slightly angular; skin whitish, thinly shaded and mottled on the sunny side, sometimes a few nettings of russet and a few grayish dots; stalk of medium length, slender; cavity large, deep; calyx closed; basin rather narrow, deep, much corrugated; flesh white, rather coarse, tender, juicy, brisk subacid; good; core large. November, February.

CHESTER COUNTY.

Origin uncertain; found on the farm of Dr. J. C. Brosins, Cochranville, Pennsylvania. Tree vigorous, spreading, inclining to droop; very

productive nearly every year; a late keeper, and considered valuable in its locality.

Fruit medium to large, roundish oblate, very slightly conic; skin yellow, shaded, splashed and striped with light and dark red in the sun and faintly on the shaded side, moderately sprinkled with large and small light dots, a few being areole; stalk short; cavity medium, sometimes slightly russeted; calyx small, closed; basin deep, large, slightly corrugated; flesh yellowish, half fine, crisp, tender, juicy, subacid; good to very good; core small. January, March.

CLAYTON.

Originated with Richard Worrell, near Clayton, Indiana, and is valued as a late keeper. Tree vigorous, upright, a regular and abundant bearer, but only moderate crop alternate years.

Fruit rather large, roundish oblate, regular; skin smooth, yellow, nearly covered with light and dark rich red, and moderately sprinkled with light dots; stalk short; cavity rather large, thinly russeted; calyx small, nearly closed; basin medium, slightly corrugated; flesh yellowish, rather coarse, compact, moderately juicy, mild subacid; good; core small. January, May.

CLINE'S CODLIN.

Origin unknown; introduced by Daniel Cline, of Fairview Township, York County, Pennsylvania. Tree vigorous, upright, an early bearer, and very productive.

Fruit medium, oblate, nearly regular; skin pale whitish yellow, almost waxy, sometimes a light shade of red in the sun; stalk short, small; cavity large; calyx closed; basin medium, slightly corrugated; flesh whitish yellow, fine, crisp, juicy, lively subacid; good to very good; core medium. Middle of August to middle of September.

CONNECTICUT RED CHEEK.

Connecticut Red Streak.

Connecticut Red Side.

An old variety, which originated in Hartford County, Conn. Tree vigorous, upright spreading; very productive alternate years.

Fruit rather large, roundish oblate; skin pale, with a bright red cheek, sometimes a few obscure splashes and stripes, and a few scattering brown dots; stalk short, small; cavity large, deep; calyx closed; basin large, deep, slightly corrugated; flesh white, half fine, crisp, tender, juicy, mild subacid; good to very good; core medium. October, November.

CONS.

An old variety of uncertain origin, grown in Lancaster and York counties, Pa., where it is esteemed as a dessert apple. Tree moderately vigorous, rather upright, very productive.

Fruit quite small, roundish, slightly conic; skin whitish, mottled and striped with rather dull red, and sprinkled with a few light dots; stalk long, slender; cavity medium; calyx half closed; basin medium,

corrugated; flesh white, tender, juicy, mild, pleasant subacid; good to very good; core medium. Ripe last of July and August.

CRAIN'S SPICE.

Originated with Dr. James H. Crain, Undulation, Illinois. Tree vigorous, forming a round head; an early, annual, and abundant bearer.

Fruit below medium, oblate, slightly conic, slightly angular; skin entirely covered with deep rich red, and a few light dots; stalk very short, small; cavity small or medium; calyx small, closed; basin somewhat narrow, deep, slightly plaited; flesh quite white, a little stained next the skin, fine, tender, quite acid at first, but when fully ripe a peculiar subacid, quince-like flavor; good; core rather small. October, January.

DAVAGE.

Origin unknown; introduced by Judge James Davage, of Caledonia, Illinois. Tree moderately vigorous, forming a round head, an early and annual bearer, said to be a fine apple, retaining its juice and flavor remarkably well.

Fruit nearly of medium size, oblate; skin whitish, nearly covered with light and dark red, many large yellowish and some brown, irregular, and star-shaped dots, a few being areole; stalk short, small; cavity medium, often slightly russeted; calyx open; basin quite broad, not deep, slightly plaited; flesh whitish, fine, rather firm, juicy, mild subacid, inclining to sweet; good to very good; core small. February, May.

DR. FULCHER.

Received from J. S. Downer, of Fairview, Kentucky, who informs me that it was a chance seedling found on the farm of the late Dr. Fulcher, of that town, and is very popular there. Tree thrifty, upright, inclining to spread in the orchard; an early, annual, and abundant bearer; young shoots light reddish brown.

Fruit below medium, roundish oblate, a little flattened at the ends, sometimes slightly oblique; skin whitish yellow, shaded, mottled, striped, and splashed over two-thirds its surface with light and dark red, a thin grayish bloom, and a few light dots; stalk short, small; cavity rather large, sometimes slightly russeted; calyx open or half closed; basin medium, slightly plaited; flesh white, half fine, sometimes a little stained next the skin, tender, juicy, refreshing, subacid; very good; core small. November, January.

DONAHUE.

Originated with P. Donahue, near Cumberland, Md. Tree moderately vigorous, spreading, productive.

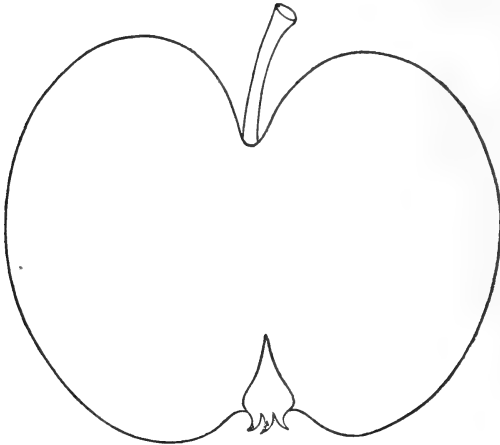
Fruit medium or below, oblate, very slightly conic, regular; skin deep rich red or purplish in the sun, moderately sprinkled with light dots; stalk short, small; cavity broad, sometimes a little greenish;

calyx small, closed; basin large, slightly uneven; flesh white, fine, tender, moderately juicy, mild, pleasant subacid; very good; core small. October, January.

DUFFIELD.

Originated with James Duffield, Jr., Van Buren, Iowa. Tree moderately vigorous, spreading; an early and abundant bearer.

Fruit medium, oblate, sides unequal, skin yellow, shaded, splashed and striped with light and dark red over the whole surface, and moderately sprinkled with light and brown dots; stalk short, small; cavity



Doctor Fulcher.

large, deep, slightly russeted; calyx closed, basin medium, corrugated; flesh yellowish, half fine, tender, juicy, pleasant mild subacid, rather rich; good to very good; core small. November, February.

DULING.

Duling's Sweet.

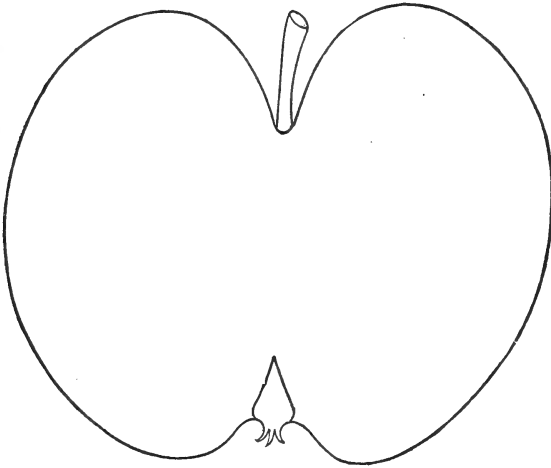
Originated with Edmund Duling, Linton Township, Coshocton Co., Ohio. Tree healthy, vigorous, rather spreading; begins to bear quite early; a regular bearer, some seasons very heavy crops; young shoots, grayish brown, smooth.

Fruit roundish, inclining to conic, regular; skin yellow, shaded, striped and splashed with deep rich red nearly over the whole surface—the splashes sometimes in broad bands,—pale red in the shade; stalk of medium length, slender, curved; cavity rather narrow, deep; calyx closed; basin medium, regular; flesh whitish, tender, juicy, pleasant, mild subacid, almost sweet; very good; core small. Middle of August to middle of September.

DULIN'S RED.

Raised by Lodd Dulin, of Hopkinsville, Christian County, Ky., where it is considered a valuable and popular winter fruit. Tree moderately vigorous, rather upright, and makes a handsome orchard tree, very productive alternate years; young shoots brownish red, grayish.

Fruit medium, oblate, very little conic, sides sometimes unequal; skin entirely covered with light red, striped and splashed with dark red, and many light and brown dots; stalk short; cavity large, deep; calyx half closed; basin medium, regular; flesh yellowish, a little coarse, breaking, tender, moderately juicy, subacid, slightly aromatic; good to very good; core medium. December, February.



Dulin's Red.

ESPEREN'S REINETTE.

Reinette d'Esperen.

A foreign variety; tree strong and vigorous, spreading, very productive.

Fruit large oblate, or roundish oblate, slightly conic; skin light golden yellow, a shade of pale light red in the sun, and a few brown dots; stalk rather short, small; cavity large, broad, regular, thinly russeted; calyx closed; basin medium, corrugated; flesh whitish yellow, rather coarse, tender, juicy, pleasant subacid; good to very good; core small. December, February.

FAIRY.

A new English dessert apple, which is spoken of as very handsome, and of fine quality, and it is thought will rival in size and color the celebrated Lady apple. Tree moderately vigorous, upright, hardy, and prolific.

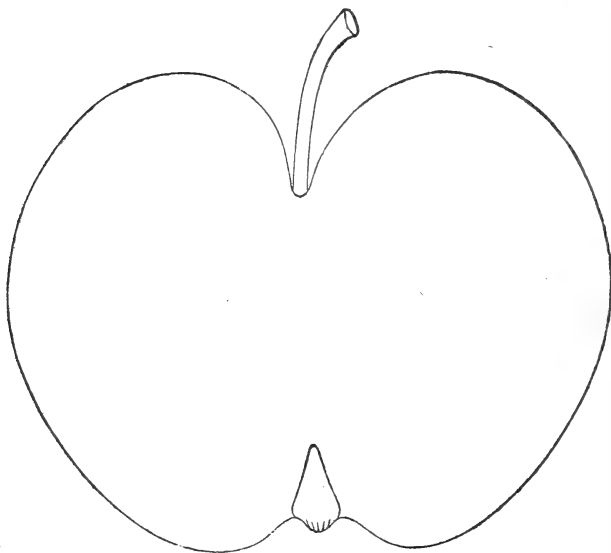
Fruit small, oblate, slightly conical; skin lemon yellow, covered with bright lively crimson, shaded with streaks of a deeper tinge; stalk of medium length, slender; cavity small, russety; calyx closed; basin small, plaited; flesh deep yellow, firm, crisp, very juicy, with a rich brisk flavor, and a fine delicate aroma. December, February. (Florist and Pomologist.)

FALL QUEEN, OR HAAS.

Gros Pommier.	Haas.	Horse of some.
Gros Pomier.	Maryland Queen.	Hoss.

Originated on the grounds of Gabriel Cerré many years since, adjoining the then village of St. Louis (now city), Mo. It was at first called Gros Pommier, but now generally Fall Queen or Haas, and we retain this, as it is most commonly used. It is very popular through most of the West and Southwest as a profitable market fruit, and for family use. Tree hardy, very vigorous, upright, forming a beautiful symmetric head; an early, annual, and abundant bearer.

Fruit medium to large, oblate, slightly conical, angular or slightly ribbed; skin smooth, pale greenish yellow, shaded nearly over the whole surface with light and dark red, some rather obscure splashes and stripes, and a few light dots; stalk short, small; cavity medium, a little greenish; calyx closed; basin small or medium, slightly corrugated;



Fall Queen, or Haas.

flesh quite white, fine, often stained next the skin, and sometimes through the flesh, tender, very juicy, vinous, brisk subacid; good to very good; core medium or large. September, October.

FALL STRIPE.

Saxton.

An old variety which originated in Massachusetts or Connecticut. Tree vigorous, forming a handsome round head; very productive alternate years; an early bearer.

Fruit medium, roundish oblate, regular; skin yellow, shaded, striped and splashed with light and dark red over the whole surface, having a few light and brown dots; stalk short, small; cavity medium, slightly russeted; calyx closed; basin medium, slightly corrugated; skin yellowish, a little coarse, juicy, tender, subacid, slightly aromatic; good to very good; core small. September.

FRANCLIN.

Origin, Lancaster County, Pa. Tree moderately vigorous, with a round head, very productive alternate years, and a few the intervening ones.

Fruit nearly of medium size, oblate; skin pale greenish white, covered with pale red, often deep red in the sun, sometimes obscure splashes and stripes, and a few light and gray dots; stalk short, small; cavity rather large, sometimes a little russeted; calyx closed; basin medium, very slightly corrugated; flesh whitish yellow, half fine, tender, juicy, pleasant subacid; very good; core small. September, October.

GENERAL LYON.

A new variety, received from George S. Park, who writes that it was raised from seed of Ben Davis by the late Elias Peck, of Parksville, Missouri, and that the tree is hardy, and resembles its parent in growth; very productive annually, a long keeper, and a good market fruit; young shoots smooth, brownish red.

Fruit medium or below, roundish conical, flattened at the ends, sometimes a little oblique; skin bright yellow, shaded with light and dark red nearly over the whole surface; sometimes a few faint stripes and a few light and brown dots; stalk short, small; cavity medium, often slight green russet; calyx open; basin broad, not very deep, corrugated; flesh yellowish, fine, compact, moderately juicy, mild subacid, rather rich; good to very good; core small. January, April.

GENERAL MARION.

Originated with Henry Lyons, Columbia, S. C. Tree a strong, vigorous grower, quite spreading, not early coming into bearing, but uniformly productive when it attains sufficient age, valuable for its late keeping and productiveness; young shoots reddish brown.

Fruit medium or below; roundish oblate conic, slightly angular; skin pale yellow, shaded, and rather obscurely striped with light and dark red nearly over the whole surface, and moderately sprinkled with light and gray dots; stalk short; cavity medium or small; calyx half closed; basin rather narrow, deep, slightly plaited; flesh whitish, half fine, compact, moderately juicy, mild subacid; good to very good; core medium. January to April.

GILLETTE'S WINESAP.

Origin unknown, but supposed to have originated with the late H. N. Gillette, of Quaker Bottom, Ohio. Tree vigorous, rather spreading, a good and valuable apple, quite productive alternate years.

Fruit rather large, roundish oblate, a little oblique, sides sometimes unequal; skin whitish, shaded and mottled with light red, rather thinly striped and splashed with darker red, and moderately sprinkled with light and brown dots; some specimens have a mixed red and russet on the exposed side; stalk short; cavity medium, much russeted; calyx open, or half closed; basin rather large, regular; flesh white, a little coarse, crisp, juicy, tender, mild subacid; very good; core small. December, January.

GOYEAU.

A chance seedling on the farm of ——— Goyeau, Windsor, Ontario. Tree a vigorous grower, rather straggling and crooked; comes rather early into bearing, and produces good crops annually.

Fruit rather large, roundish, angular or slightly ribbed, and somewhat irregular; skin light pale yellow, many rather obscure light dots; stalk of medium length, slender; cavity rather large, uneven; calyx closed; basin quite large, furrowed; flesh yellowish, fine, very tender, juicy, brisk subacid, excellent for culinary uses, and a fair table fruit. August, September.

GRATTAN.

This new large apple was grown from seed by Nehemiah Smith, of Grattan, but while quite young, before fruiting, was removed to the farm of Solomon Deal, of Oakfield, Mich. It is highly prized in that section for culinary purposes as well as for the table. Tree vigorous, upright, forming a round open head, producing good crops annually, and larger ones alternate years.

Fruit large to very large, roundish oblate, slightly conic, regular; skin smooth, bright yellow, moderately sprinkled with grayish dots; stalk very short, small; cavity large, deep, sometimes slightly russeted; calyx open, or partially closed; basin large, deep, nearly smooth; flesh yellowish, a little coarse, tender, juicy, brisk, subacid; good to very good; core small. September, December.

GROS PIGEONNET.

Of foreign origin. Tree strong, but a slow grower; productive.

Fruit medium, roundish oblate; skin pale yellow, shaded, mottled, and rather obscurely striped and splashed, with light and dark rich red over most of the surface, and moderately sprinkled with small light dots; stalk short, small; cavity medium, russet; calyx closed; basin medium, furrowed; flesh whitish yellow, a little coarse, juicy, subacid; good. December, February.

GROS VERT.

Large Green.

Of foreign origin. Tree vigorous, spreading, productive.

Fruit medium, oblate; skin greenish yellow, covered with a few rather obscure green and grayish dots; stalk rather short, moderately stout; cavity quite large, russet; calyx closed; basin medium, slightly corrugated; flesh pale yellow, half fine, tender, juicy, pleasant subacid; good to very good; core small. January, March.

HANNAH.

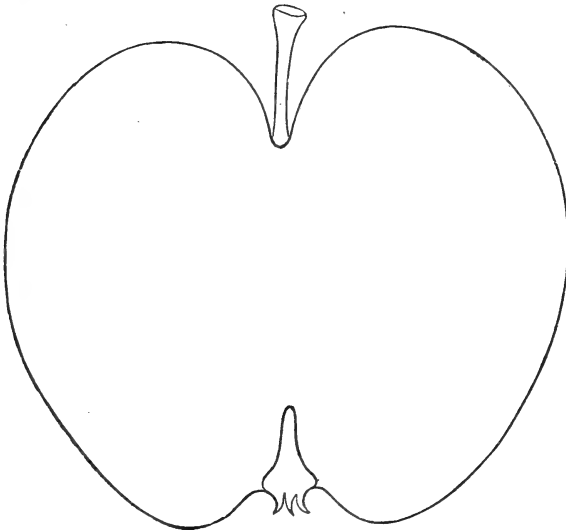
Originated with Joseph Curtis, of Manchester, O. Tree hardy, vigorous, upright at first, but spreading when in bearing; an annual, moderate bearer.

Fruit roundish oblate conic, slightly angular; skin pale dull greenish yellow, striped, splashed and mottled over half the surface with light red, and moderately sprinkled with large and small white dots, a few being areole; stalk short, small; cavity large, deep; calyx small, closed; basin small, corrugated; flesh greenish white, fine, tender, juicy, mild subacid, almost sweet; good to very good; core small. November, December.

HATCHER.

Hatcher's Seedling.

Originated on the farm of the late O. C. Hatcher, near Franklin, Tenn. Tree an upright thrifty grower, not an early bearer, but pro-



Hatcher.

duces good crops annually; a late keeper, and one of the most popular apples in Middle Tennessee.

Fruit medium, roundish inclining to conic, slightly angular; skin very dark rich red, sometimes almost purplish, a few light dots; stalk short, small; cavity medium, often slight russet; calyx open; basin medium, slightly plaited; flesh yellow, fine, rather compact, juicy, mild, pleasant rich subacid, almost sweet; very good; core small. January, March.

HAWKINS' CHIEF.

Originated with S. Hawkins, Maple Grove, Minn. Tree hardy, healthy and vigorous, and adapted for a northern latitude.

Fruit medium, oblate, slightly conic; skin pale yellow, clear of the slightest blush or tinge; stalk short, stout; cavity shallow; calyx closed; basin broad, deep; flesh rather coarse, brittle, acid; good; core small. October. (Western Pomologist.)

HIRAM.

Origin, orchard of General Isaac Sandford, of Vermillion, Ill. Tree a moderate grower, forming a round head; a moderate bearer at first, but when the tree has attained some age is very productive; valuable in its locality for late keeping and market.

Fruit medium, roundish oblate, sometimes a little oblique; skin entirely covered with dark red, sometimes obscure splashes and moderately sprinkled with light dots; stalk short, small; cavity medium, much russet; calyx closed; basin broad, rather shallow, corrugated; flesh whitish, half fine, rather compact, mild subacid; good to very good; core small. January to May.

HOYA GOLDEN REINETTE.

Hayasche Gold Reinette.

Reinette de Hoya.

Of German origin. Tree strong, vigorous, spreading; an early and abundant bearer.

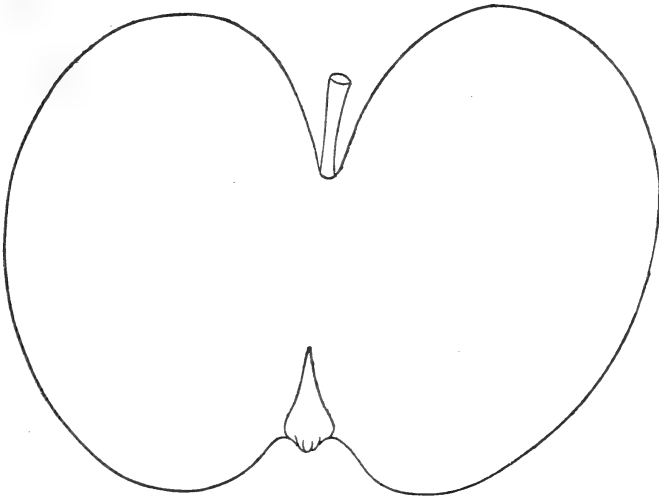
Fruit medium, oblate, regular; skin golden yellow, shaded with dark red, faintly striped and splashed with light red, and sprinkled with a few light and gray dots; stalk short, small; cavity large, slight russet; calyx closed; basin medium; flesh yellowish, half fine, juicy, tender, subacid; good; core small. November, March.

HUNTSMAN'S FAVORITE.

A seedling on the farm of John Huntsman, of Fayette, Mo. Tree vigorous, not a very early bearer, but is very productive annually when the tree has attained sufficient age; it is said to be a valuable and profitable fruit in the locality where it originated; young shoots smooth, reddish brown.

Fruit large, oblate, slightly conic, often a little oblique; skin smooth, pale yellow, sometimes a shade of pale red or deep yellow in the sun, and a few scattering grayish dots; stalk short, small; cavity broad, deep, sometimes slight russet; calyx closed, or nearly so; basin

large, deep, slightly corrugated; flesh pale yellow, a little coarse, crisp, tender, juicy, mild rich subacid, slightly aromatic; very good; core rather small. December, March.



Huntsman's Favorite.

HUMISTON.

Origin Plymouth, Conn. Tree vigorous, upright, with long branches, forming a spreading head when in fruit, very productive every other year, hangs late on the tree, cooks well, but only second quality for eating.

Fruit medium, oblate to roundish oblate, slightly conic, sides sometimes unequal; skin yellow, a little greenish, shaded and rather obscurely striped and splashed with light and dark red over half or two-thirds its surface, a few light and gray dots; stalk rather short, small; cavity quite large, slightly russeted; calyx closed; basin medium, slightly corrugated; flesh white, half fine, tender, moderately juicy, subacid; good; core small. February, March.

ILLINOIS GREENING.

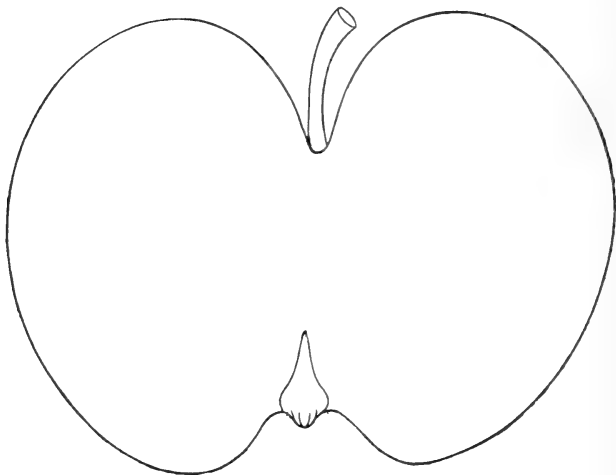
Originated with Joseph Curtis, of Paris, Ill. Tree hardy, vigorous, upright, somewhat spreading, produces large crops annually, valuable as a late keeping market apple in its locality.

Fruit large oblate, to roundish oblate, sometimes a little oblique; skin greenish yellow, often a shade of dull red in the sun, and a few light and brown dots; stalk short; cavity medium, slight russet; calyx half open; basin large, deep, nearly smooth; flesh yellowish, half fine, rather compact, moderately juicy, subacid; good; core small. January, April.

IOWA RUSSET.

This new apple originated with Joseph L. Budd, Shellsburg, Iowa, who informs us that the tree is very hardy, vigorous, making a compact round head, an early, annual, and abundant bearer; fruit even in size, of good quality, and a valuable acquisition for the prairie country; young shoots light reddish yellow brown.

Fruit medium, oblate to roundish oblate, sometimes slightly oblique; skin deep yellow, a shade of pale red when exposed to the sun, moderately sprinkled with grayish dots, and partially covered with patches and nettings of russet; stalk short, small; cavity quite large; calyx closed; basin round, quite deep, nearly smooth; flesh yellowish, half fine, tender, moderately juicy, mild subacid, rather rich; good to very good; core small. January, March.



Iowa Russet.

IRISH PIPPIN.

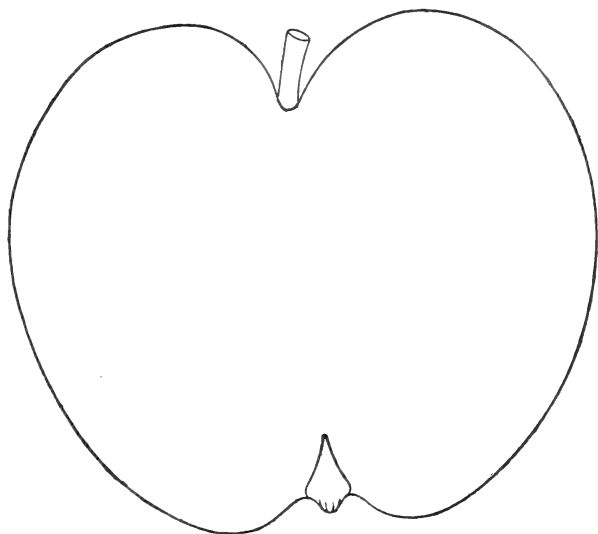
Originated with Stephen A. Porter, Norristown, Pa. Tree a free upright grower, forming a handsome head, very productive alternate years; young shoots smooth, reddish brown.

Fruit medium to large, roundish oblate, sometimes roundish, slightly conical; skin whitish, shaded with light bright red, striped and broken splashes of dark red, and a few light and brown dots; stalk very short, small; cavity medium, sometimes a little russeted; basin small, corrugated; flesh white, tender, juicy, mild subacid, slightly vinous; very good; core rather small. October, November.

JOHNSON.

Originated with Thomas Johnson, Ash Ridge, Ill. Tree vigorous, upright, an annual and good bearer; it is highly prized where it originated.

Fruit medium to large, oblate, sometimes slightly oblique; skin pale greenish yellow, almost entirely covered with dark rich red, inclining to maroon, and moderately sprinkled with light and gray dots; stalk very short, small; cavity medium, russet; calyx open; basin medium, slightly plaited; flesh yellowish, fine, juicy, mild rich subacid, inclining to sweet; very good; core small. December, March.



Irish Pippin.

KANSAS QUEEN.

Raised by Burrell Atkinson, Leavenworth, Kan. Tree hardy, vigorous, forming a handsome open head; very productive.

Fruit medium, roundish, slightly conical, slightly angular; skin entirely covered with light and dark red, sometimes almost purplish in the sun, moderately sprinkled with small light and gray dots; stalk short, slender; cavity deep, rather narrow; calyx closed or nearly so; basin medium, corrugated; flesh quite white, rather firm, juicy, brisk subacid; good; core rather large. August, September.

KANSAS SWEET.

A seedling raised by B. Atkinson, of Leavenworth, Kansas. Tree erect, compact, vigorous, productive.

Fruit rather large, oblate, slightly conical; skin greenish yellow, covered with broken stripes of light red and crimson; dots small, black, scattered; stalk short, rather thick; cavity regular, wide, deep; calyx small, closed; basin shallow; flesh yellowish white, fine, juicy, crisp, breaking, very tender and pleasant, sugar sweet; quality excellent; core medium. November to January.

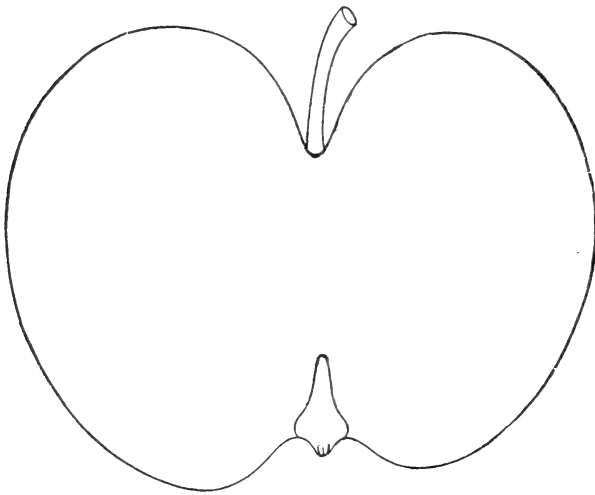
KING SOLOMON.

Origin unknown; received from J. S. Downer & Son, of Fairview, Ky., who write me that it came from Georgia. Tree a strong, vigorous grower, spreading, not an early bearer, but very productive alternate years; a handsome and good apple of its season; young shoots dark reddish brown; buds large.

Fruit medium or above, oblate to roundish oblate, slightly angular; skin orange yellow, a few scattered stripes and splashes of light red over the surface, and moderately sprinkled with brown dots; stalk short; cavity medium; calyx large, open; basin rather large or medium; flesh yellow, a little coarse, moderately juicy, mild subacid, slightly aromatic; good to very good; core small. September.

KINNAIRD'S CHOICE.

Originated on the farm of the late Michael Kinnaird, of Franklin, Tenn. Tree a thrifty, vigorous grower, not very upright or regular, similar to Winesap; an early and annual bearer, producing heavier crops alternate years.

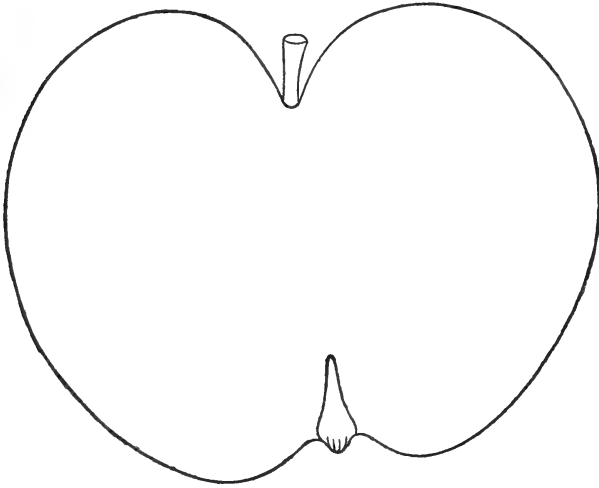


Kinnaird's Choice.

Fruit medium, oblate, inclining to conic, slightly angular, or obscurely ribbed, sides sometimes unequal; skin yellow, almost covered with dark rich red, many small light dots near the crown, and larger ones and less number near the base; stalk short, small, sometimes by a lip; cavity wide, deep, russeted; calyx closed; basin large, deep, furrowed; flesh yellowish, half fine, crisp, tender, juicy, mild, rich subacid, slightly aromatic; very good; core small. January.

LALLIER'S PROLIFIC RED.

A new variety raised by Eugene Lallier, of Leavenworth, Kansas. Specimens received from Dr. J. Stayman, who writes that the tree is moderately vigorous, forming a round head, unusually productive on rich bottom land, where nearly all others fail, and has shown no symptom of blight or disease of any kind; use, table and market.



Lallier's Prolific Red.

Fruit medium, oblate, slightly conical; skin pale greenish yellow, shaded with rather bright red, more or less faint stripes and splashes of rather dull red over most of the surface, and covered with numerous light dots in the sun and grayish ones in the shade; stalk short; cavity medium to large, sometimes thinly russeted; calyx closed, or nearly so; basin small or medium, slightly corrugated; flesh yellowish, half fine, crisp, tender, juicy, mild, pleasant subacid; very good; core small. October, February.

LAMBERT.

Keasbey's Favorite.

Origin near Salem, N. J., on the premises of John H. Lambert. Tree very vigorous, rather upright, inclining to spread; a good bearer, and keeps well.

Fruit large, roundish, inclining to oblong, slightly conical; skin whitish yellow, nearly covered with pale light red and obscurely striped and splashed with darker red and numerous light dots; stalk very short, small; cavity large, deep, russeted; calyx large, closed; basin large, deep, corrugated; flesh whitish, half fine, rather firm, juicy, pleasant subacid, slightly aromatic; very good; core small. December to February.

LANDSBERGER REINETTE.

Reinette de Landsberg.

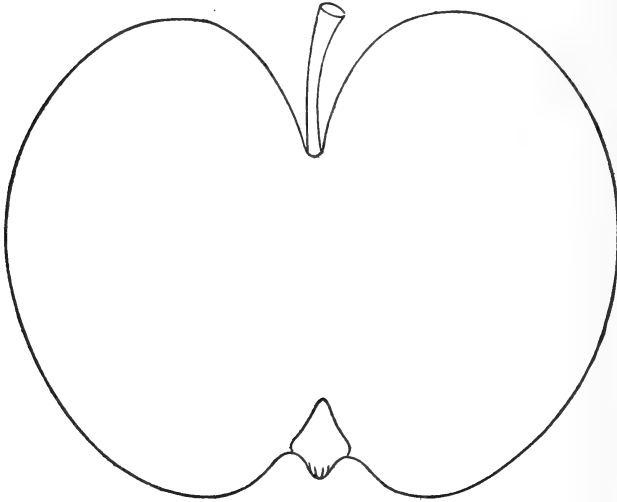
Originated with Justrigrath Burchardt, Hanover, Germany. Tree strong, vigorous, spreading, very productive.

Fruit medium to large, oblate, regular; skin smooth, golden yellow, sometimes a shade of light red in the sun, and many light and brown dots; stalk long, slender; cavity medium, russet; calyx closed; basin medium, corrugated; flesh yellowish, fine, crisp, tender, juicy, lively subacid, rather rich; good to very good; core small. November, January.

LELIEUR.

Of foreign origin and a promising variety. Tree vigorous, upright, very productive.

Fruit medium or above, roundish oblate, slightly angular; skin yellow, shaded, splashed, and striped with light and dark red over the en-



Lelieur.

tire surface, and a few scattering light dots; stalk short, slender; cavity large, deep, a little greenish; calyx closed; basin quite large, moderately deep, slightly corrugated; flesh white, fine, tender, juicy, mild subacid; good to very good; core small. November, February.

LONG'S RUSSET.

Originated with the late J. S. Long, of Fairview, Ky., and is considered one of the best late keeping apples for that locality. Tree vigorous, upright, but spreading when in fruit, and makes a large handsome tree; very productive annually; young shoots reddish brown, grayish.

Fruit medium to large, oblate, slightly oblique; skin greenish, nearly covered with rough dull russet; stalk very short; cavity rather broad, deep; calyx open; basin medium, regular; flesh white, green tinge, half fine, moderately juicy, half tender, pleasant subacid; good; core small. March, April.

MCAFEE'S NONSUCH.

McAfee.	Wyandotte.	Large Striped Pearmain.
McAfee's Red.	Gray Apple.	Storr's Wine.
Striped Pearmain.	Indian.	Missouri Superior.
Snorter.	Uncle Zeeke.	New Missouri.
Nonsuch.	Winter Pearmain.	Valandingham's Wine.
Zeeke.	Large Striped Winter Pear-	White Crow.
Gray's Keeper.	main.	Ladies' Favorite of some.
Park's Keeper.	Striped Winter Pearmain.	Hubbardston Nonsuch, erroneously.

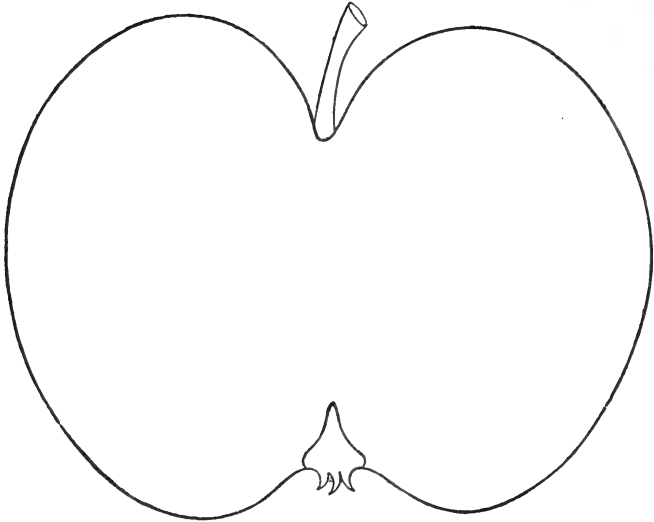
As this and Striped Winter Pearmain in the second revised edition have proved to be identical, we give a new description with the additional syns. An old variety, which originated in the orchard of George McAfee, near Harodsburg, Mercer County, Ky. We are indebted to Dr. William Howsley, of Leavenworth, Kansas, for its history, origin, etc. Tree very vigorous, forming a round spreading head. It does not come early into bearing, but is very productive when it attains some age. It is considerably grown through the West and South-west under the name of Striped Winter Pearmain, also more or less by the syns. as given above. It is valued in many localities as one of the best of its season; in others of but little value.

Fruit medium to large, roundish oblate, inclining to conic; skin yellow, striped, splashed and marbled with light and dark bright red nearly over the surface, yet showing the yellow ground nearly all through, thickly sprinkled with large and small light dots, some areole; stalk short to long, slender; cavity large, deep, often thinly russeted; calyx small, closed; basin rather small, slightly plaited; flesh yellowish, half fine, crisp, tender, juicy, rich mild subacid, inclining to sweet, slightly aromatic; very good; core medium. October, February.

MANN.

A chance seedling in the orchard of Judge Mooney, of Granby, N. Y. Tree hardy, an upright grower, with rather slender branches, forming a round head; an early and annual bearer, a late keeper, valuable for market and cooking, and a fair table fruit.

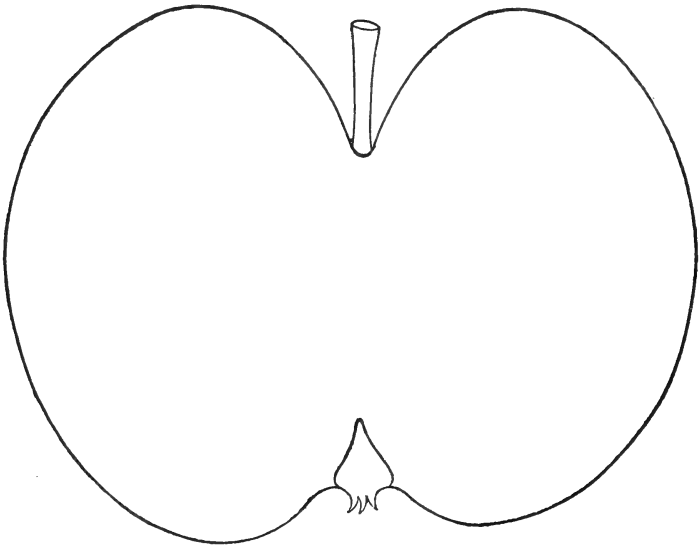
Fruit medium to large, roundish oblate, nearly regular; skin deep yellow when fully ripe, often with a shade of brownish red where exposed, and thickly sprinkled with light and gray dots, a few being areole; stalk short, rather small; cavity medium or quite large, sometimes slightly russeted; calyx generally closed; basin rather large, slightly corrugated; flesh yellowish, half fine, half tender, juicy, mild pleasant subacid; good to very good; core medium. January, April.



Mann.

MARQUIS OF LORNE.

Raised from seed of the Gravenstien by William Sutton, of Port



Marquis of Lorne.

Williams, Nova Scotia. Tree very vigorous, making a large spreading

tree; it is rather late coming into bearing, but produces good crops annually when established; valuable for market and culinary uses.

Fruit large to very large, roundish oblate; skin smooth, whitish yellow, shaded, mottled, and a few broken splashes and stripes of light and dark bright red over most of the surface, with a few light and brown dots; stalk short; cavity large, deep, russeted; calyx large, open; basin large, irregular or ribbed; flesh white, rather coarse, breaking, tender, juicy, lively subacid; good to very good; core medium. November.

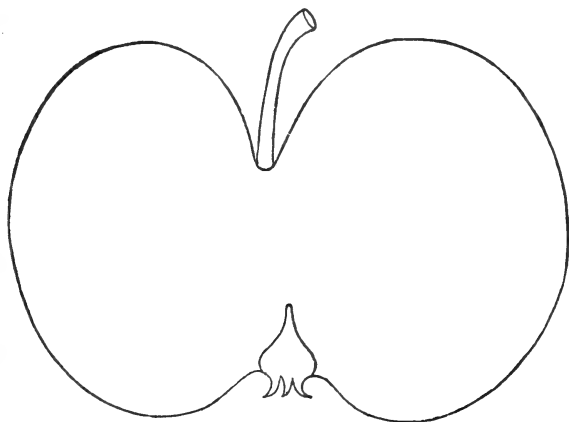
MASON'S STRANGER.

Mason's Pippin.

Old Field.

Izzard.

A chance seedling found on the farm of Dr. George Mason, Virginia. Tree of vigorous growth, forming a large symmetric head, very productive annually; a popular and favorite apple where it originated; young shoots brownish red.



Mason's Stranger.

Fruit medium, oblate, somewhat depressed; skin light bright yellow, sometimes a shade of light red where exposed to the sun, and a few brownish dots; stalk short, small; cavity large, slight russet; calyx open; basin large, deep, smooth; flesh whitish, fine, rather compact, crisp, juicy, mild subacid, inclining to sweet, somewhat spicy and rich; very good; core small. December, February.

MISSOURI PIPPIN.

Missouri Keeper.

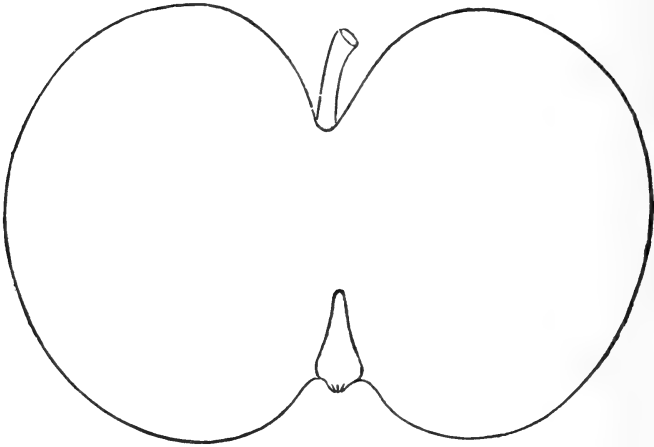
It is said to have originated in the orchard of Brink Hornsby, Johnson County, Mo. Tree hardy, a strong upright, rather spreading grower, an early and abundant annual bearer.

Fruit medium to large, roundish oblate, slightly oblique, somewhat flattened at the ends; skin pale whitish yellow, shaded, striped and

splashed with light and dark red, often quite dark in the sun, having many large and small light and gray dots; stalk short, small; cavity large, deep; calyx closed, or half open; basin rather abrupt, deep, slightly corrugated; flesh whitish, a little coarse, crisp or breaking, moderately juicy, subacid; good; core small. January, April.

MONTE BELLO.

Originated with Matthew Gray, Riverside, Monte Bello Township, Ill. Tree rather upright, hardy, healthy, moderately vigorous, an early bearer, very productive annually, a new variety, and A. C. Hammond, from whom specimens were received, writes that he considers it an apple of great promise.



Monte Bello.

Fruit above medium, oblate, regular; skin pale yellow, shaded and mottled with light red, striped and splashed with dark rich red over the whole surface, and a few large light dots; stalk very short, small; cavity large, broad, russeted; calyx small, nearly closed; basin large, deep, smooth; flesh quite white, fine, sometimes a little stained next the skin, very tender, juicy, mild subacid, vinous; very good; core small or medium. September, November.

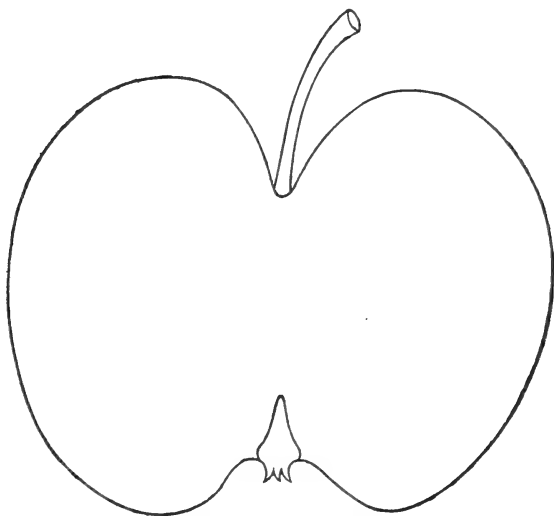
MORGAN.

Originated with Benjamin Morgan, Gloucester County, N. J., many years since. Tree a healthy moderate grower, not an early bearer, but produces good crops alternate years when the tree attains some age.

Fruit medium, roundish; skin pale greenish yellow, sometimes a shade of pale red in the sun, and many brown dots; stalk short, small; cavity small, often a little russeted; basin rather small, slightly corrugated; flesh white, fine, tender, moderately juicy, pleasant, mild subacid; good; core small. October, January.

OTOE RED STREAK.

Originated with James H. Masters, Nebraska City, Otoe County, Nebraska. Tree an upright spreading grower, forming a round head; an early and abundant bearer annually.



Otoe Red Streak.

Fruit medium, roundish oblate, sides sometimes unequal; skin whitish yellow, nearly covered with light red, many stripes and broken splashes of dark rich red, moderately sprinkled with light and grayish dots; stalk rather short, slender; cavity large, deep, russeted; calyx closed; basin large, deep, very slightly corrugated; flesh quite white, sometimes a little stained next the skin, crisp, tender, juicy, mild, sprightly subacid; good to very good; core small. November, May.

PARRY'S WHITE.

Imperial White. Superior White. White Apple.

Of unknown origin, supposed to be Pennsylvania. Tree vigorous, upright, compact head, a regular bearer, and very productive; use, table, cooking, and market.

Fruit medium or below, roundish oblate, slightly conic; skin smooth, whitish, sometimes a slight tinge of red in the sun; stalk short, small; cavity large, deep; calyx closed; basin rather shallow, a little uneven; flesh fine, white, crisp, very tender, juicy, subacid; good. August.

PERLE D'ANGLETERRE.

Pearl of England.

Of foreign origin. Tree a strong grower, productive.

Fruit medium or below, sides sometimes unequal; skin yellow, thinly

shaded with light red, some rather obscure stripes and splashes, and many brown dots; stalk of medium length, slender; cavity quite large, russeted; calyx large, open; basin large, broad, slightly corrugated; flesh whitish, half fine, half tender, juicy, brisk subacid, rather rich; good to very good; core small. November, December.

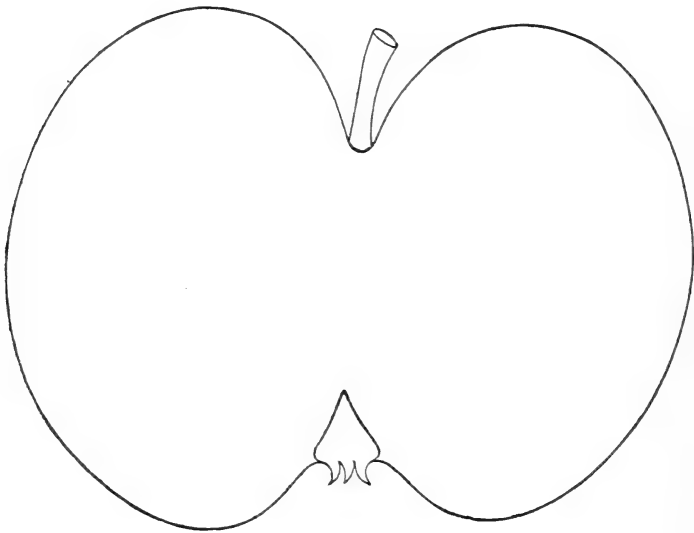
PEWAUKEE.

Raised from seed of Duchess of Oldenburg by George P. Pepper, of Pewaukee, Wis., who sends us specimens, and writes that the tree is strong and vigorous, centre upright, very spreading, an annual bearer, and one of the hardiest and best for the Northwest; young shoots dark brownish red.

Fruit medium to large, roundish oblate; skin bright yellow, striped, splashed and mottled with light and dark red over most of the surface, covered with a thin grayish bloom, and many large and small light dots, a few being areole; stalk short, small; cavity small; calyx closed; basin medium, slightly corrugated; flesh white, a little coarse, breaking, half tender, juicy, subacid, slightly aromatic; good; core small. January to May.

PILOT.

An accidental seedling, found on the premises of John Robbins, at the foot of Pilot Mountain, Nelson County, Va. Tree hardy, of mod-



Pilot.

erate growth, forming a round head, rather slow coming into bearing, but when established produces large crops alternate years, and a few the

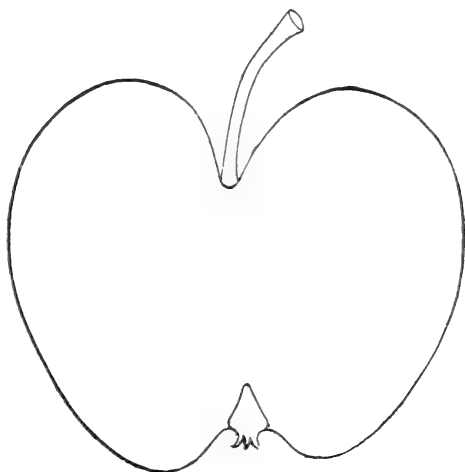
intervening ones, and is considered a valuable variety in its locality; young shoots reddish brown.

Fruit large, roundish oblate, slightly angular; skin pale yellowish green, shaded, splashed and striped with pale dull red nearly over the surface, and thickly sprinkled with large areole dots; stalk short, small; cavity rather large; calyx half closed; basin large, deep, smooth; flesh yellowish white, fine, rather firm, tender, juicy, rich subacid, slightly aromatic; very good; core small. December, January.

POMME GRISE D'OR.

Swazie Pomme Grise.

An old variety of unknown origin. I am informed it is considerably grown in Canada and some portions of Western New York, and there were trees of it near Niagara on the Colonel Swazie farm—where it probably originated—two feet in diameter. Tree hardy, upright, moderately vigorous, and a good bearer every other year. The fruit is more oblong, more golden in color, and more aromatic than the Pomme Grise, and is considered superior to it.



Pomme Grise d'Or.

Fruit small, oblate, or roundish oblate, conical; skin deep yellow, covered with a thin light cinnamon grayish russet, and many rather obscure light dots; stalk short to long, slender; cavity rather broad, deep; calyx closed; basin quite large, deep, slightly corrugated; flesh whitish, fine, tender, juicy, mild subacid, rich and aromatic; very good or best; core rather small. January to March or April.

PRESH'S WINTER.

Originated at the Forest Nursery of J. S. Downer & Son, of Fairview, Todd County, Ky., who write that the tree is a good grower, up-

right, rather irregular, very productive alternate seasons, and an excellent winter apple; young shoots reddish brown.

Fruit medium to large roundish, slightly conic; skin pale yellow, shaded with dark red in the sun, thinly shaded and rather obscurely and faintly splashed and striped in the shade, moderately sprinkled with light dots; stalk short, small; cavity medium, considerably russeted; calyx open; basin quite large, deep, smooth; flesh yellowish, fine, a little firm, crisp, juicy, pleasant subacid, vinous; very good; core small. December, March.

PRINCETON.

Origin, Massachusetts. Tree a vigorous grower, spreading; a good bearer alternate years.

Fruit medium, oblate, slightly angular; skin pale yellow, shaded, striped and splashed with light and dark red over most of the surface, a few light and gray dots; stalk short, small; cavity medium, smooth, sometimes thinly russeted; calyx closed; basin large, deep, a little uneven; flesh white, fine, tender, juicy, pleasant subacid; good to very good; core medium. October, January.

RELIANCE.

Origin, Berlin, Wis.; received from G. N. Smith, who writes that it is valuable for that locality for its hardiness, vigor, and productiveness.

Fruit conical, or oblong conical, slightly ribbed, or with broad shallow furrows; skin pale light yellow with broken stripes and shades of deep red where fully exposed; stalk short; cavity deep, open, slight greenish russet; calyx nearly closed; basin deep, broad, open, with many small sharp furrows; flesh white, half fine, tender, moderately juicy, mild subacid; good to very good; core rather open at centre. January to March.—(*Rural New-Yorker.*)

RIPLEY.

Ripley's Claret.

This is said to have been raised by N. L. Ripley, of Collinsville, Madison County, Ill. Tree said to be thrifty, well shaped and tolerably productive.

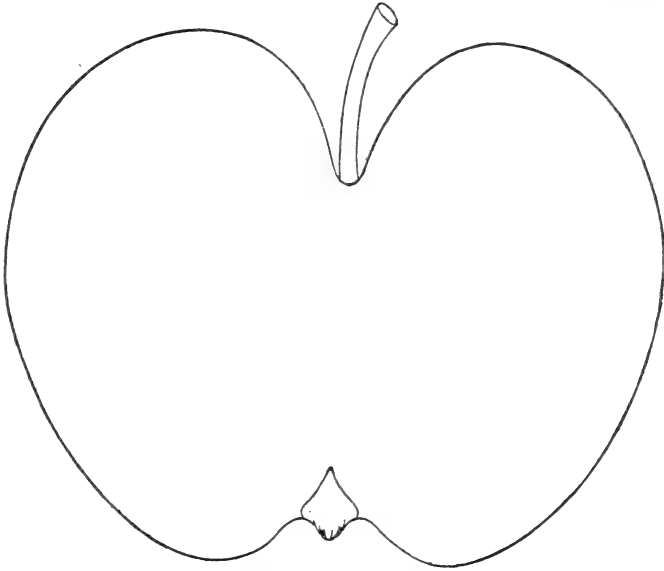
Fruit medium to large, oblate, somewhat conical, sides unequal; skin smooth and shining, greenish ground, nearly covered with a brilliant crimson and marked with numerous white dots; stem medium length, slender; calyx large, closed; flesh white, firm, moderately juicy, subacid; very good; core rather small and closed. September. (W. C. Flag, in *Journal of Horticulture.*)

ROCHESTER PIPPIN.

A hybrid raised by Jacob Moore, of Rochester, N. Y., and judging from the specimens received, being of large size and excellent quality, is a very promising winter variety.

Fruit large, roundish oblate, nearly regular; skin smooth, pale greenish yellow, shaded with light brownish red in the sun, and a few

greenish dots; stalk short, small; cavity large, smooth, a little greenish; calyx closed; basin medium or rather large, smooth; flesh whitish, fine, crisp, tender, juicy, vinous refreshing flavor, slightly aromatic and rich; very good or best; core small. January, March.



Rochester Pippin.

ROSE-BUD.

Origin unknown, supposed to be New Castle County, Del. Tree a strong, vigorous grower, forming a round, rather spreading top, very productive; fruit hangs firmly to the tree, keeps well, and is useful for the table and kitchen.

Fruit medium, roundish oblate, slightly angular; skin yellowish, shaded and rather obscurely splashed and striped with light and dark red nearly over the surface, and moderately sprinkled with quite large light dots; stalk of medium length, slender; cavity rather large, often slightly russeted; calyx closed; basin broad, moderately deep; flesh whitish yellow, half fine, breaking, juicy, mild subacid; good; core small. December, March.

ROSE BEE.

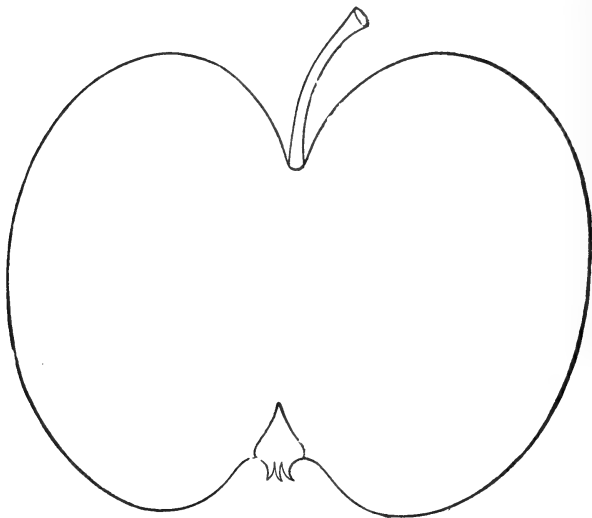
Originated with John Rose, Loudon, Mercer County, Pa. Tree vigorous, upright, a good bearer alternate years, and some the intervening ones.

Fruit medium, roundish oblate, inclining to conic, slightly angular; skin pale whitish yellow, shaded with light red, striped and splashed with dark red, sometimes almost purplish, and a few light dots; stalk short, rather stout; cavity rather small, often russeted; calyx closed;

basin small, slightly corrugated; flesh quite white, sometimes a little stained next the skin, half fine, tender, moderately juicy, brisk subacid; good; core medium. October, January.

ROSE RED.

Of unknown origin, supposed to be on the farm formerly owned by Gideon Ramsdell, Egypt, Monroe County, N. Y. Tree a thrifty, strong grower, upright, inclining to spread; very productive and regular bearer.



Rose Red.

Fruit medium, oblate, or roundish oblate; skin whitish, shaded, striped and splashed with light and dark red, sometimes quite dark, nearly over the whole surface, many light dots, a portion being areole; stalk short, small; cavity large, deep, smooth, a little greenish; calyx half closed; basin large, deep; flesh yellowish, fine, very tender, juicy, vinous, lively subacid; very good; core small. Middle of September and November.

SEAGER.

The original tree grows on land owned by the Indians near Lumberville, Bucks County, Pa. Tree vigorous, upright, productive; young shoots dark brown, buds large, long, prominent.

Fruit medium, oblate, inclining to conic, slightly angular; skin pale yellow, shaded, striped and splashed with light and dark rich red, some of the splashes quite broad and broken, and a few light dots; stalk rather long, slender, curved; cavity large, deep; calyx closed; basin medium, corrugated; flesh white, tender, juicy, rather rich, mild sub-

acid; good to very good; core rather small. Last of August and September.

SCHUYLER'S SWEET.

Originated on the farm of Rensselaer Schuyler, Seneca Falls, N. Y. Tree vigorous, spreading, open head, a regular bearer, and productive.

Fruit large, roundish or roundish oblate, slightly conic, slightly angular; skin pale yellow, a few scattering brown dots; stalk rather short, slender; cavity large, deep; calyx closed; basin large, deep, slightly corrugated; flesh white, half fine, tender, moderately juicy, mild, pleasant sweet, slightly aromatic; good to very good; core small. September, October.

SCRIBNER SPITZENBURGH.

Originated on the farm of Elijah Scribner, Plattsburgh, N. Y. Tree vigorous, spreading, very productive alternate years.

Fruit medium, roundish conical, angular; skin pale yellow, shaded with bright deep red in the sun, sometimes obscure stripes and splashes and pretty thickly sprinkled with light dots; stalk short, moderately stout; cavity rather narrow, deep; calyx half closed; basin medium, furrowed; flesh whitish yellow, half fine, crisp, tender, juicy, subacid, slightly aromatic; good to very good; core small. December, February.

SHERMAN'S FAVORITE.

Sherman's Sweet.

Originated on the farm now owned by E. C. Sherman, of Wyoming, N. Y. Tree vigorous, rather spreading, very productive alternate years.

Fruit medium or above, oblate, angular or slightly ribbed; skin greenish yellow, sometimes brownish red in the sun, moderately sprinkled with light and gray dots; stalk rather long, slender; cavity broad, not very deep, a little greenish; calyx closed; basin broad, rather deep; flesh a little coarse, half tender, crisp, juicy, mild, rather rich sweet; good to very good; core medium. November, January.

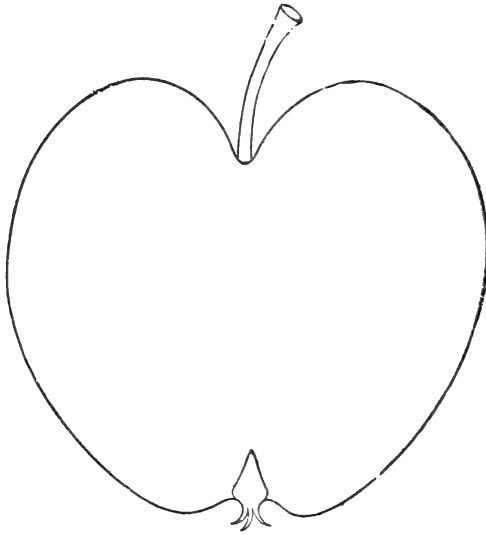
SILLIX.

Originated on the farm of Thomas Sillix, Manellan Township, Pa. Tree moderately vigorous, upright, somewhat spreading, not an early bearer, but very productive alternate years when the tree has attained some age.

Fruit below medium, roundish, regular; skin pale yellow, shaded with light and dark rich red over half or more of the surface, obscurely splashed and striped, and covered with numerous small light and gray dots; stalk short, small; cavity small, smooth; calyx half closed; basin medium, slightly corrugated; flesh yellow, fine, compact, moderately juicy, mild subacid, almost sweet, quite rich; very good; core small. December, March.

SOMERSET.

Of uncertain origin; supposed to have originated in the town of Somerset, N. Y. Tree vigorous, spreading; an annual bearer, but



Somerset.

heavier crops every other year; a rich, high-flavored apple, desirable for family use.

Fruit below medium, roundish conical, much narrowed towards the calyx; skin whitish yellow, some nettings and patches of russet, and a few brown dots; stalk of medium length, slender; cavity medium; calyx closed; basin small, corrugated; flesh quite white, fine, very tender, juicy, rich, highly aromatic; very good or best; core medium. October.

SOULARD.

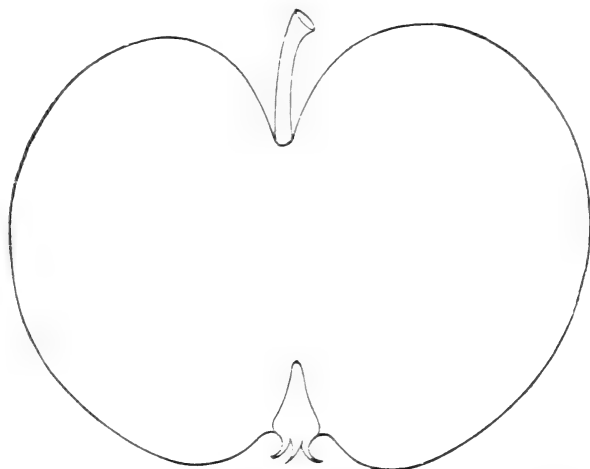
Raised by Antoine Lessieur, of Portage des Sioux, a few miles above St. Louis, Mo. Tree very vigorous, upright, slightly spreading when in fruit; an early and abundant bearer. This is highly prized in the neighborhood of its origin.

Fruit medium to large, oblate, slightly conic, slightly angular, or obscurely ribbed; skin whitish, shaded, striped and splashed with light and dark bright red over most of the surface, with a few light and brown dots; stalk short, small; cavity quite large, slight russet; basin medium, corrugated; flesh quite white, very tender, very juicy, sprightly subacid, vinous; very good; core rather large. October, November.

STARR.

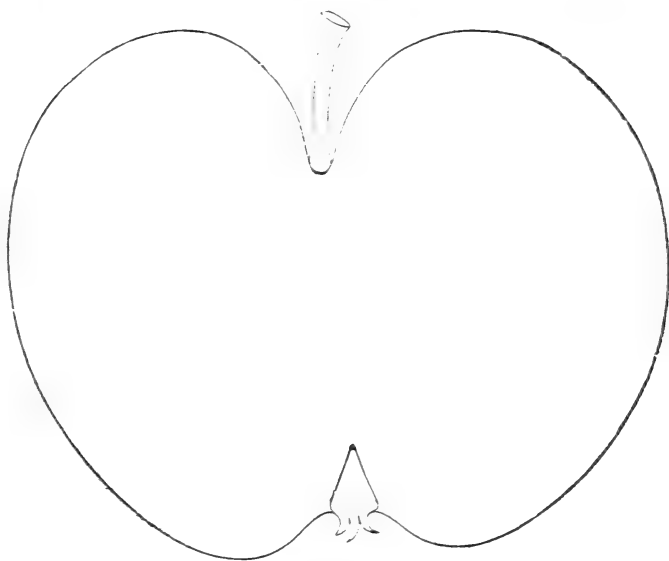
This large early apple was an accidental seedling on the premises of the late John Starr, of Woodbury, N. J. The tree is said to be a

vigorous grower, forming a round, somewhat spreading head; branches rather slender; a regular and abundant bearer; valuable as an early



Soulard.

market sort, and for culinary uses; young wood light reddish yellow brown, buds prominent.



Starr.

Fruit large, roundish oblate, obscurely ribbed; skin greenish white, or pale yellow at full maturity, sometimes a shade of light red in the sun,

moderately sprinkled with light and gray dots; stalk short; cavity large, deep; calyx closed; basin of medium size, slightly corrugated; flesh whitish, half fine, crisp, tender, juicy, sprightly subacid; good to very good; core medium; ripens from the middle of July to the middle of September.

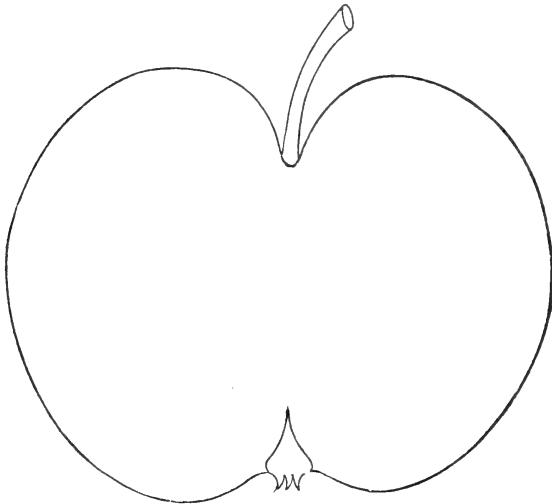
STAYMAN'S SUMMER.

Originated on the grounds of Dr. J. Stayman, Leavenworth, Kansas. Tree hardy, vigorous, spreading, irregular, tough, wiry, droops like a weeping willow with ropes of fruit, never breaking a limb; an early bearer and very productive, very nearly equal to Benoni and Summer Pearmain, and handsomer.

Fruit medium, round, regular, approaching conic; skin smooth, greenish yellow, splashed and striped with red and purple, covered with a white bloom; dots small, gray, scattered; stem medium, rather slender; cavity narrow, deep, irregular, russeted; eye very small, closed; basin narrow, shallow, furrowed; core small, slightly open; flesh greenish white, very juicy, brittle, sprightly, high flavored, mild acid; very good; use, kitchen, table, and market. August, September.—(*Western Pomologist*.)

STRIBLING.

Originated with the late William Stribling, Medon, Tenn. Tree a good grower, rather upright, forming a regular round head; an early annual and abundant bearer; young shoots reddish brown.



Stribling.

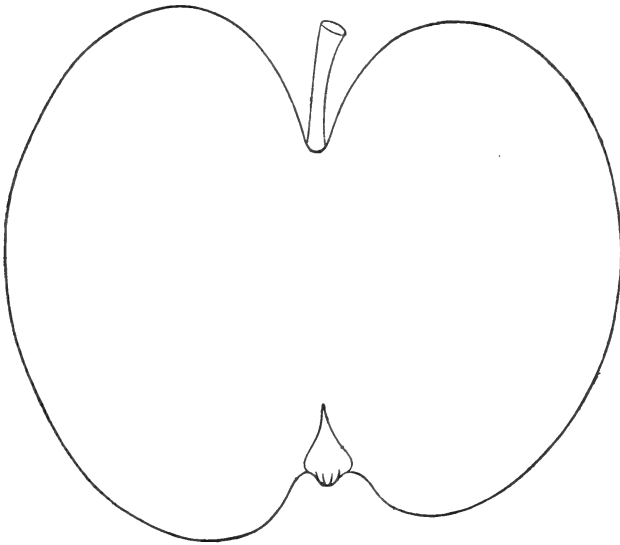
Fruit medium, oblate, slightly angular; skin whitish, nearly covered with stripes and splashes of light and dark rich red—some of the

splashes almost purplish with rather conspicuous yellow dots; stalk short, small; cavity medium; calyx half open; basin rather small, slightly corrugated; flesh white, tender, moderately juicy, mild pleasant subacid; good to very good. July at the South.

STRIPED SWEET PIPPIN.

Striped Pippin.

An old variety of unknown origin, and was given as a syn. in former editions of this work to Striped Winter Pearmain, but has proved distinct. Tree vigorous, forming a round, rather low head; an early and abundant bearer, but more heavily alternate years; valuable for table or market; young shoots olive brown, slightly downy at the end.



Striped Sweet Pippin.

Fruit rather large, roundish oblate, slightly angular; skin bright yellow, shaded with dark rich red in the sun, striped, splashed and mottled with lighter red on the shaded side, and many light and gray dots; stalk short, small; cavity rather large, deep; calyx closed; basin quite deep, rather abrupt, a little uneven; flesh white, fine, tender, juicy, mild, pleasant rich sweet, or very mild subacid; very good; core rather large. November, February.

SUMMER KING.

King.
Puckett's Summer.

Puckett.

Cheese.
Summer Cheese.

An old variety supposed to have originated in North Carolina, and has been cultivated in Warren and Todd Counties, Ky., for many years,

where it is highly prized as one of their best and handsomest apples of its season. Tree upright, moderate grower, and productive alternate years; young shoots reddish brown, grayish.

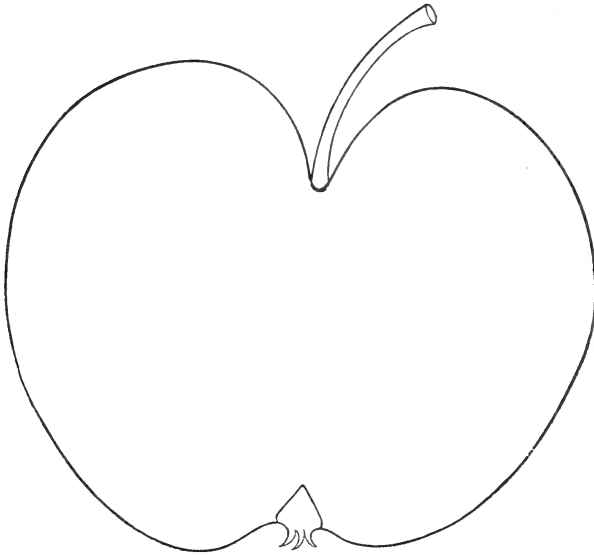
Fruit medium to large, roundish oblate; skin yellowish green, striped with crimson, red and orange; stalk short; cavity large, deep, russeted; calyx closed; basin medium, regular; flesh whitish, yellow, fine, brittle, juicy, mild agreeable subacid flavor; core small. August, September.— (*Western Gardener.*)

SUMMER SPITZENBURGH.

French Spitzenburgh.

Originated with Woolsey Ostrander, Plattekill, N. Y. Tree moderately vigorous, forming a round head; an early and abundant bearer annually.

Fruit medium, roundish conical, slightly angular; skin whitish, almost entirely covered with two shades of red in stripes and splashes,



Summer Spitzenburgh.

some of which are quite dark, and covered with a thin bloom; stalk short; cavity medium, sometimes slightly russeted; calyx closed; basin medium, slightly corrugated; flesh yellowish white, half tender, moderately juicy, subacid, and a little aromatic; good to very good. August, September.

TUTTLE.

Originated on the farm of Lyman Tuttle, Hamden, Conn. Tree upright, vigorous, an early and abundant bearer every other year of fair

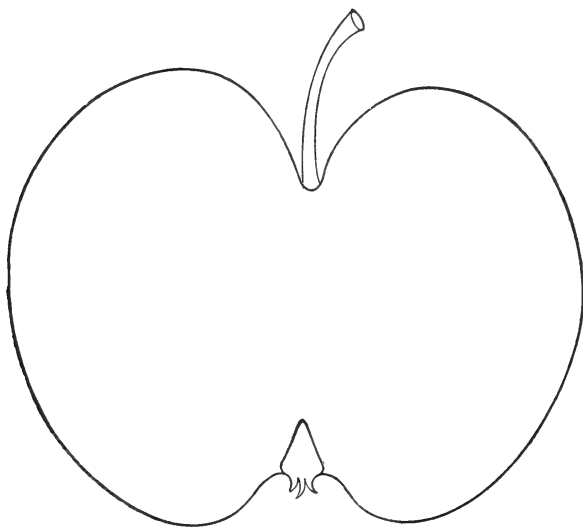
fruit, and valued in its locality for market and family use; young shoots dark brown, many light grayish dots.

Fruit medium, roundish oblate conic, sides sometimes unequal; skin pale yellow, shaded, striped and splashed with light and dark red, nearly covering the fruit, and moderately sprinkled with light russet and gray dots; stalk medium, slender; cavity large, russeted, sometimes extending in rays on the base; calyx closed; basin small, slightly corrugated; flesh whitish, fine, tender, juicy, mild pleasant subacid; very good; core medium. December, March.

WEALTHY.

A new variety, raised by Peter M. Gideon, of Excelsior, near St. Paul, Minn. So far the tree has proved hardy, healthy, vigorous, spreading, very productive; a beautiful and excellent fruit.

Fruit medium, oblate, or roundish oblate; skin smooth, whitish yellow, shaded with deep rich red in the sun, obscure broken stripes,



Wealthy.

splashes and mottlings in the shade, sometimes entirely covered with crimson, and many light dots; stalk short to medium, slender; cavity large, green russet; calyx partially closed; basin deep, abrupt, uneven; flesh white, fine, sometimes stained with red, tender, juicy, vinous, lively subacid; very good; core small. December, February.

WESTERN BEAUTY.

Musgrove's Cooper.

Big Rambo.

Ohio Beauty.

Origin unknown. William T. English, of Rhinehart, O., seems to have brought it into notice, and furnished us specimens. Tree very

vigorous, making a large, spreading, open head; an early and good bearer.

Fruit large to very large, roundish oblate, regular; skin pale yellow, shaded with bright red in the sun, some rather obscure splashes and stripes of light red in the shade, thickly sprinkled with large light and gray dots, the light ones being areole; stalk of medium length, slender; cavity large, sometimes light russet; calyx large, closed; basin large, broad, slightly corrugated; flesh whitish yellow, coarse, crisp, tender, juicy, mild subacid; good to very good; core rather small. October, February.

WHITESCARVER.

Originated with R. A. Whitescarver, of Laurel Mills, Va., who informs me that the tree is vigorous, rather spreading or round head, an early and good bearer annually, but more so alternate years.

Fruit medium, roundish oblate; skin pale yellowish green, a few light dots, a portion being areole; stalk short; cavity narrow; calyx small; basin broad, moderately deep; flesh yellowish white, half fine, crisp, tender, juicy, pleasant subacid; very good; core large, open. November, December.

YORK STRIPE.

Origin York County, Pa. Tree moderately vigorous, spreading, an early bearer, and very productive alternate years.

Fruit rather large, roundish, slightly conic, slightly angular; skin pale whitish yellow, shaded and rather thinly striped and splashed with light bright red over the whole surface, but quite faintly on the side least exposed to the sun; stalk short, small; cavity large, deep, a little greenish; calyx open or half closed; basin large, deep, slightly corrugated; flesh white, rather coarse, breaking, moderately juicy, mild subacid; good; core small. January, February.

SIBERIAN CRABS AND IMPROVED SIBERIAN APPLES.

BAILEY'S CRIMSON CRAB.

Raised by William H. Bailey, of Plattsburgh, N. Y. Tree vigorous, upright; very productive.

Fruit large for a Siberian, roundish, very slightly conic; skin yellow, shaded over the whole surface with deep rich crimson, almost purplish in the sun, and covered with a light bloom; stalk short to long, slender, in a medium or small cavity; basin rather shallow, corrugated; flesh yellow, juicy, subacid and astringent. September.

BRIER'S SWEET CRAB.

Originated with B. B. Brier, of Baraboo, Wis. Is the result of a fertilization of the Siberian Crab with the Bailey apple. Tree perfectly hardy, vigorous and productive.

Fruit as large as the Transcendent; shaped like the Bailey Sweet; color pale yellow, beautifully pencilled and splashed with carmine; flesh yellowish, crisp, juicy, very sweet and rich; quality best for dessert or preserves. (A. G. Tuttle, Manuscript.)

LADY ELGIN.

Geneva.

Marengo Siberian, No. 4.

This beautiful new Siberian apple originated on the farm of James Forbes, of Ridott Township, Ill. Tree hardy, vigorous, upright, slender branches, very productive, a pleasant dessert fruit, and said to be excellent for canning; the slight acid or vinous flavor being preferred by some to the rich sweet of the peach.

Fruit large for a Siberian, roundish oblate, regular; skin smooth, whitish yellow, nearly covered with bright rich red, a few light and gray dots; stalk medium, slender; cavity small; calyx closed; basin shallow, corrugated; flesh white, fine, tender, juicy, mild subacid, slightly vinous; very good. September, December.

MACKIE'S BEAUTY SIBERIAN.

Originated with Matthew Mackie, Clyde, N. Y. Tree vigorous; very productive.

Fruit large of its class, roundish oblate; skin whitish, nearly covered with deep rich red, a light grayish bloom, and a few light dots; stalk rather long, slender; cavity quite large; calyx closed; basin broad, rather shallow, corrugated; flesh white, crisp, tender, moderately juicy, subacid, a little astringent. September.

SYLVAN SWEET CRAB.

Raised by Mrs. C. P. Alling, Sylvan, Richland County, Wis., from seed of Siberian Crab, and A. L. Hatch, of that town, describes the tree as vigorous, handsome, and suited to a northern latitude; he says the flesh is tender, juicy, and sweet, and thinks it would make good cider.

Fruit large, two inches or more in diameter, roundish oblate; skin smooth, light yellow, nearly covered with bright red; stalk long, slender; cavity medium; basin rather small; flesh yellowish, tender, juicy, mild, pleasant sweet; core rather large; ripens last of August and first of September. (*Pomologist and Gardener.*)

VAN WYCK'S SIBERIAN.

A chance seedling on the farm of Miss Caroline Van Wyck, Fishkill, Dutchess County, N. Y. Tree vigorous, upright, productive.

Fruit large for a Siberian, roundish, slightly conic; skin smooth, whitish, shaded and mottled with light bright red, and covered with a thin bloom; stalk rather long, slender; cavity rather narrow, deep; calyx closed; basin medium, smooth; flesh whitish, fine, rather firm, moderately juicy, rather rich, honeyed sweet; good; core small and close. September.

Additional Synonyms.

Alpian.....	Syn. of Cannon Pearmain.
Anderson.....	“ “
American Nonpareil.....	“ Domine.
August Pippin.....	“ Summer Sweet Paradise.
Bell's Favorite.....	“ Sops of Wine.
Bully Pippin.....	“ Ewalt.
Chillicothe Sweet.....	“ Bailey's Sweet.
Crutchfield Greening.....	“ Bullet.
Champ Sweet.....	“ Hartford Sweet.
Claybank.....	“ Griffith.
Conford.....	“ Pryor's Red.
Dixie.....	“ Shockley.
Duverson's June.....	“ Early Red Margaret.
Early White.....	“ Cooper's Early White.
Early July Pippin.....	“ Early Harvest.
Early Red Sweet.....	“ Red June Sweet.
Father Abram.....	“ Abram.
Garvis Seedling.....	“ Buckingham.
Glory of the West.....	“ Dutch Codlin.
Hollman.....	“ Nickajack.
Hazeldeen.....	“ Princely.
Herr's June.....	“ Early Red Margaret.
Holland's Red Winter.....	“ Winesap.
Hutchinson's Pippin.....	“ Ben Davis.
Joe Allen.....	“ “
Jones's Early Harvest.....	“ Carolina Red June.
July Branch.....	“ Jersey Sweet.
Kentucky Red Streak.....	“ Ben Davis.
Kirby's Red.....	“ Red Winter Pearmain.
Lady's Blush.....	“ Ewalt.
Long Island Graft.....	“ Fall Orange.
Normanton Wonder.....	“ Dumelow's Seedling.
New York Bellflower.....	“ Fall Orange.
Regular.....	“ Cooper's Market.
Red Abram.....	“ Abram.
Rigley.....	“ Cooper's Market.
Saille Sweet.....	“ Red and Green Sweet.
Seneca Favorite.....	“ Quince.
Speckled.....	“ Fall Orange.
Striped Quarendon.....	“ Early Red Margaret.
Striped Sweet Harvest.....	“ Red June Sweet.
Striped Red Harvest.....	“ “ “
Susy Clark.....	“ Carolina Red June.
Summer Traveller.....	“ Early Red Margaret.
Sweet Dumpling.....	“ Summer Sweet Paradise.
Tenan Red.....	“ Ben Davis.
Texan Red.....	“ Winesap.
Uxbridge Spice.....	“ Capron's Pleasant.
Van Kleek's Sweet.....	“ Hog Island Sweet.
Virginia June.....	“ Early Red Margaret.
Virginia Sweet.....	“ Red and Green Sweet.
Virginia Pippin.....	“ Ben Davis.
Westbrook.....	“ Fall Orange.
White Codlin.....	“ Dutch Codlin.
White Newell.....	“ Fall Orange.
White, or Yellow June of some.....	“ Kirkbridge White.
Wine Sweet.....	“ Winter Sweet Paradise.
Wrigley.....	“ Cooper's Market.
York and Lancaster.....	“ St. Lawrence.

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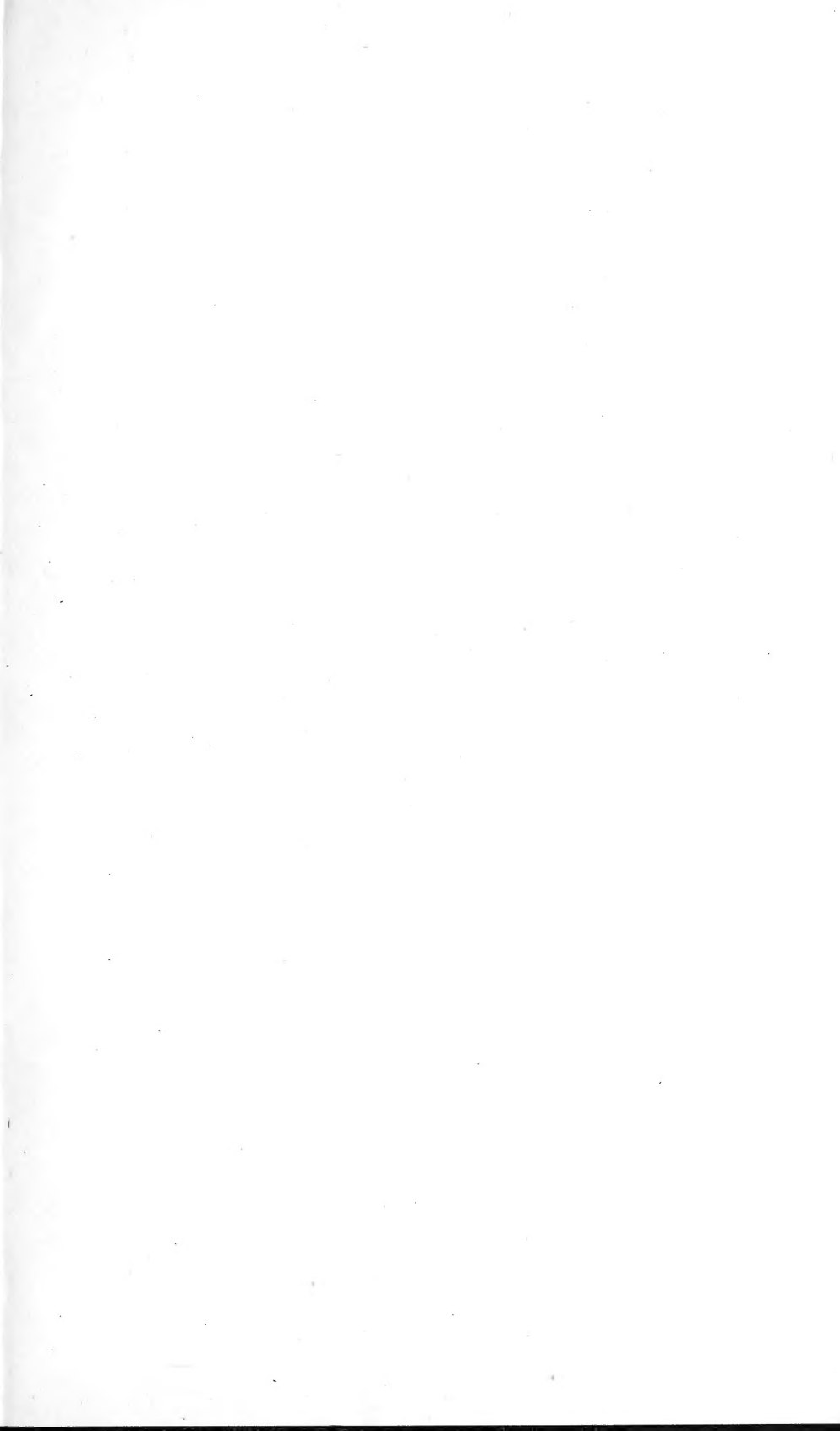
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