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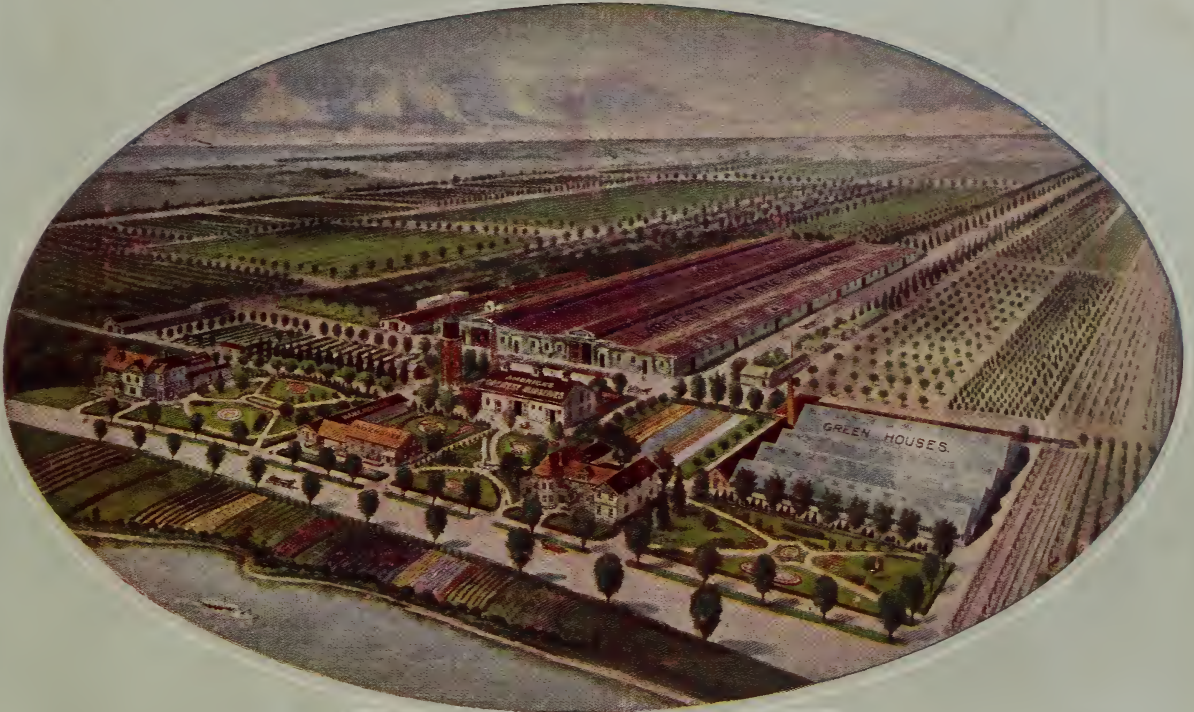
JAN 31 1920

U. S. Dept. of Agriculture

BOOK OF

HORTICULTURE

By Charles E. Greening



Plant of *The Greening Nurseries*

The Greening Nursery Co.

Monroe, Michigan

LARGEST GROWERS OF TREES IN THE WORLD



OUR HUMBLE BEGINNING IN 1883



A POOR BEGINNING often results in a good ending. In 1883 we were in humble circumstances, as the above picture shows, and our outfit was as meager and commonplace as any farm home. Charles E. Greening, now president of The Greening Nursery Company, and his brother, George A. Greening, and their reliable old horse were ready for work without even a bank account or any nursery stock to supply their start. But they were willing workers and had thirty acres of good land, which was to be the beginning of the greatest nursery business in the world.

We are as proud, now, of that beginning, as we are of the wonderful growth of our business enterprise. From 30 acres of farm land to 1500 acres of choice nursery, in thirty-three years, is a just reason for self-gratification.



The late J. C. W. Greening

The late J. C. W. Greening, founder of Greening's Nurseries, was a professional gardner in Germany. He came to America in the forties and began the nursery business in Monroe in 1850. He was the father of Chas. E. Greening, now president of The Greening Nursery Co., and probably one of the best posted men on the nursery and landscape business in America.

The Greening Nursery Monroe Michigan Company

ESTABLISHED 1850.

CAPITAL STOCK, \$200,000 00

OFFICERS:



CHAS. E. GREENING
President
Consulting Horticulturist



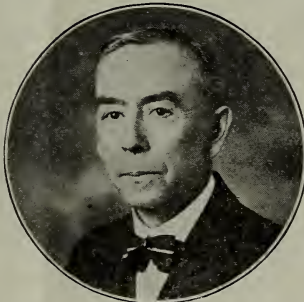
BEN J. GREENING
Vice-President



EDW. G. GREENING
Secretary-Treasurer
General Manager

This Is An Organization of Experts

These men have learned that a strong organization is necessary to carry on a large wellinstituted business and have surrounded themselves with a force of efficient helpers.



H. L. STEINER
Sales and Office Manager

The Greening Nursery Company

has adopted a high standard in the development and administration of their business

Their business activities are permeated with a high sense of business honor.

From This **HIGH STANDARD** We Invite **YOUR TRADE**



We have the best of everything that a high class and reputable nursery can offer.



I feel proud of my nice orchard.—John Ferwerda, Falmouth, Mich.



OUR NEW OFFICE BUILDING.

Our new offices are located in the central part of Monroe, corner of Monroe and Second Streets, only one block and across the street from the electric railway waiting room. This is a beautiful location, and a fine, large building erected and equipped at a great expense. The office rooms are large and convenient and well adapted to the tremendous business conducted by the Greening Nursery and Landscape Company.

An enormous quantity of mail is handled daily by a large force of expert office assistants.

The Detroit and Toledo interurban cars pass our doors every thirty minutes.

OUR FACILITIES

1500 ACRES OF THE RICHEST LAND.

Your attention is directed to our facilities, briefly sketched in the following paragraphs:

We now have 1500 acres devoted to the propagation of nursery stock. The soil is the richest and most fertile sort of clay loam, underlaid with a clay subsoil. Thousands of dollars have been expended in underdraining and improving the soil for the growing of the highest quality of nursery stock.

Our climate, too, is one of our big assets. It is lovely, cool and healthy, and tempered by the breezes of Lake Erie, which lies only a mile or two away. Such conditions as these never fail to produce perfectly hardy and healthy stock with clean, smooth, sturdy bodies and large bunches of fibrous roots. Now, is there any question that this parcel of land upon which Greening's BIG Nurseries operate, is justly called one of the richest in America?

Greening's have treated me right for eighteen years.—B. L. Broderson, Stony Ridge, O.

CAREFUL HANDLING AND SKILFUL PACKING

We beg to call the attention of planters to a sad fact. We refer to the careless handling of nursery stock by nurserymen before shipment and the slipshod manner of packing. A vast amount of nursery stock reaches its destination in a condition fit only for the brush heap, as the result of careless work and handling at the nursery. Trees are often allowed to lie exposed to wind and sun for days, and in many instances are shipped without necessary packing material to keep them in fresh condition while in transit. Such trees when received by the planter are worthless for transplanting, though hardly ever discovered by the planter until too late. We employ only the best and most faithful help for digging, handling and packing, and it is always done under our own personal supervision, in the most careful and skillful manner. The rule of keeping the stock fresh and moist all the while under our care is strictly enforced. Our stock always arrives in good condition, even if shipped across the continent. The roots are always placed in a thick puddle of clay mud before packing them away into the boxes, bales, or into a car, and are filled in with plenty of moist packing material to insure safe transportation to destination. In point of careful handling and skillful packing our system is unsurpassed.



OUR MAMMOTH STORAGE CELLARS—LARGEST IN THE WORLD.

These grand storage buildings give an interesting example of modern genius in the storage and care of nursery stock. They are eight in number, built of quarried stone, and representing the investment of large capital. Total area of storage room, 200,000 sq. ft., being the largest in the world; capacity, over thirty million trees. With the facilities we have for the perfect storage of stock, we are prepared to meet emergencies arising from shipping stock during the winter and late in spring. Stock is handled and packed in these buildings without exposure to sun, wind or frost. The carelessness among nurserymen generally in handling trees, if seen by planters, would prove a big surprise. Live trees are handled too much like brush from the clearings. Is it any wonder that there are so many disappointed planters? Under our system of winter storage and packing we actually retain the perfect growing condition without deterioration in any form, from the time the tree is dug until the planter receives it ready for planting. A cold storage room to hold over stock for very late shipments is in connection with these buildings.

Your dealings with me have been most satisfactory.—A. F. Mead, Battle Creek, Mich.



A FIELD LECTURE ON SOIL RENOVATION.

The Greening Nurseries are noted for their soil fertility, which produces a very luxuriant growth of trees. The secret lies in scientific tillage. Many Agricultural Colleges send their students here for post-graduate study, and this view pictures Mr. Greening delivering a field lecture on green manuring. The class consists of a body of students from Pennsylvania State University.

PREPARATION FOR, AND SETTING OUT THE ORCHARD

The Site and Soil For an Orchard

In the matter of selecting a site for one or more kinds of fruit, the question of soil and location is of utmost importance. On it often depends success or failure. An elevated location having good surface and air drainage is, in most instances, preferable to low, level lands. Even on the highlands, pockets or depressions in the land must be avoided. Avoid extremely hilly or rough land. Underdrainage is recommended on level ground for good results—it makes the soil loose, fertile and warm besides aiding in many other ways.

The slope or exposure of a site must also be considered when determining the best location for an orchard. Generally a southern slope warms up earlier in the spring than a northern or eastern exposure. This induces early blossoming and fruiting, which may sometimes be desirable, but trees on a southern slope are much more susceptible to sun scald and winter injury than on any other exposure. Fruit growers generally prefer a northern or eastern exposure because they usually have strong soils, are more retentive of moisture and are not so susceptible to winter injury or the late spring frosts.

The different kinds of fruit vary considerably as to hardiness in our northern climate. The apricot is very tender and should receive very careful consideration when locating the site for such an orchard. Apples, pears and quinces are not so tender and, therefore, it is not necessary that only the most favorable site be chosen for them. These last three fruits are also about the last to blossom in the spring.

The different fruits require different types of soil, but all do their best in strong, deep, well-drained soil. In general the apple, cherry, peach, and quince do best on a light or gravelly loam soil, while the pear and grape do best on a heavy soil. The apple adapts itself well to a wide variety of soils.

Your peach trees are especially fine.—W. H. Miller, Goodrich, Mich.

The Selection of Varieties

One of the most important and difficult problems that confronts the fruit grower and farmer, is the selection of varieties for his orchard. In making his choice he cannot be too careful and should be guided not only by his own preferences, but also by the purpose of the orchard (whether for home or market use) and the locality. If the orchard is for home use it should contain varieties affording a succession of fruits for as large a part of the year as possible. Every variety should be of high quality—part suitable for dessert and part for cooking.

In choosing varieties for the commercial orchard, the fruit grower must consider the demands of the markets which he expects to supply. The markets of this country differ greatly as to their likes and dislikes; as for instance, the east generally wants a white peach, Chicago a yellow one; New York is a good market for Greenings, while Boston prefers Baldwins; often a fruit considered inferior in one market is highly valued in another. While this is true to a large extent now, the consumer is gradually cultivating a taste for the choicer varieties.

Varieties differ also as regards their hardiness and adaptability to different climatic and soil conditions. Some varieties do comparatively well almost anywhere, but most of them are more or less affected by different environment. Therefore, the prospective fruit grower should make a careful investigation to determine what varieties do best in his locality and conclude from this which varieties will be best suited to his particular site and soil. In selecting varieties for the commercial orchard it is well not to choose too many. Too many varieties are difficult to care for and sell and will not bring as good prices as two or three varieties.

In planning an orchard for the market it is well to consult for advice those with experience and knowledge upon the subject. It is also well to consult a reliable nurseryman and in this connection we cheerfully offer our services. Our wide range of experience and knowledge of growing fruit for market enables us to give good reliable advice to planters. We will gladly answer all questions in this respect, honestly and fairly. Planters may consult us with the utmost confidence.

The Best Trees To Plant

It is by all means advisable to secure first-class trees. They should be free from injurious insects and diseases, should have a healthy root system, with enough good sized roots to hold the tree firmly in the ground and a plenty of fine roots. Not all varieties have straight, smooth trunks, and this should be taken into consideration.



LONG LIVED TREES.

Orchard planted by the founder of Greening's Nurseries in October, 1861.

The orchard of apple trees shown in this picture was planted 54 years ago by J. C. W. Greening, father of Chas. E. Greening, and the founder of the big nurseries bearing that name. Mr. Chas. E. Greening and Mr. Geo. W. Bruckner may be seen in the picture. Mr. Bruckner's father owned the farm on which these noble trees now stand. Several different varieties of apple trees may be found in this old orchard, the one shown in the foreground being a Jonathan. Nearly all the trees which were planted are still standing and bearing good crops. Only a few trees have been removed. The great age and good condition of these trees may be credited to the splendid care which has been given them.

You can't be beat in sending out nice stock—Geo. A. Flory, Archbald, O.



A FINE SPECIMEN OF LOW HEADED TREES.

This picture shows off to good advantage the superior points of excellence of Greening's Low Headed Trees.

Notice that the picker can stand right on the ground and pick a greater part of the fruit without the aid of a ladder. By using a short ladder or platform wagon the entire crop may be picked without loss.

There are further advantages of the Low Head system: The trees are easily sprayed, the highest branches can be reached and covered by the spray.

The Low Head trees are not so greatly in danger of wind storms and when the fruit does fall, it falls such a short distance that it results in no injury.

We may summarize the good points of Low Heading trees as follows:

1. Less cost and labor in caring for the trees.
2. Less cost and labor in picking the fruit.
3. Stronger trunks of the trees and stronger framework brought about by the pruning.
4. Better quality of fruit as a result of better care which is possible.
5. Much less loss by falling fruit, etc., etc.

Low Head trees are the trees to plant.

The best trees to plant, irrespective of climate and location, are such as are grown in a cool and temperate climate. The great State of Michigan is noted far and wide for its cool, moderate and healthful summer climate, making it the most popular health resort of the northern states; also for its great fruit growing industry. Being surrounded on three sides by the waters of the Great Lakes, it has the most favorable climatic conditions for the growing of hardy and healthy nursery stock. Trees grown in this climate are hardier and better adapted for transplanting than those grown in milder climates, and will make lasting and profitable orchards.

Your good trees will get you many orders here next fall.—J. Crandall, Greenwood, Ind.

Care of the Young Trees Before Planting

Immediately after receiving the trees or plants from the nursery they should be thoroughly moistened and wrapped or covered to prevent drying out. Bring them home at once and heel-in without delay. The trench should be dug at least fifteen or eighteen inches deep. Loosen the lower band of the bundle, wet the trees thoroughly and place them in the trench. Cover the roots and press the ground down firmly around them. Trees which are to be heeled-in over winter should be placed in a trench with the tops leaning toward the south at an angle of about 45 degrees, the soil should be carefully placed around the roots to exclude all air and the trees well banked for protection. It is often advisable to cover about two-thirds of the tree with soil. Evergreen boughs and snow are both excellent to cover them over winter. For heeling-in over winter select a place where water will not stand, away from buildings and meadows, out in the open field where mice will not injure them. Strawberries, raspberries and blackberries if well dampened can be kept in a cellar until ready to plant. Some fruit growers prefer fall shipment, and heeling-in over winter; the advantage claimed, is in having the stock for very early spring planting. We strongly recommend spring delivery and planting, because we can guarantee to bring the trees to the planter as early in spring as it is advisable to plant.

Distance for Planting

Most of our old orchards were planted too closely. The planters forgot that in later years the trees would develop large tops and extensive root systems. If trees are planted too closely together they not only interfere with each other but also hinder spraying and cultivation. The kind of fruit and often the variety as well will determine the proper distance to plant. The planter must consider whether the variety is an upright or spreading grower; for example, the Northern Spy as compared with the Wagener.



THE GRAFTING ROOM, HOME OF THE WHOLE-ROOT GRAFT.

In this department the most rigid care and greatest perfection of detail in the work of grafting, tying, handling and storing the grafts is absolutely necessary to insure success. Here is the birthplace of the whole-root graft. The scions are cut late in the fall and, together with the crabapple seedlings, are stored in the cellars for grafting during the winter. The tying is done with waxed string by means of a gasoline-driven machine. **ONLY THE STRONGEST IMPORTED FRENCH CRABAPPLE SEEDLINGS ARE USED,** roots that are far superior to the American grown in firmness of wood and size. Trees grown from these roots are hardier and stronger in every respect than American-grown roots.

Your trees this year were exceptionally fine.—E. C. Corrigan, Coloma, Mich.



THE IDEAL LOW-HEADED TREE.

Low-headed peach tree fifteen months after planting in the orchard of The Grand Traverse Fruit Company at Empire, Michigan. Notice what an ideal tree can be formed by low-heading. Ask them about Greening's trees.

Distances for Planting

Apples	35 to 50 feet apart	Grapes, (trellis)	8 feet apart
Pears, Standard	18 to 25 feet apart	Grapes, (arbor)	6 feet apart
Pears, Dwarf	10 to 15 feet apart	Gooseberries	4x6 feet apart
Sweet Cherries	25 to 40 feet apart	Currants	4x6 feet apart
Sour Cherries	18 to 24 feet apart	Raspberries, Red	2x7 feet apart
Plums	18 to 24 feet apart	Raspberries, Black	3x7 feet apart
Peaches	18 to 24 feet apart	Blackberries	3x7 feet apart
Apricots	18 to 24 feet apart	Dewberries	3x7 feet apart
Quinces	10 to 16 feet apart	Strawberries	1x4 feet apart

Planting Table

Distances Apart Each Way	Number of Trees or Plants required per Acre	
	Square System	Hexagonal System
4 feet	2723	.....
5 feet	1742	.....
6 feet	1210	.....
8 feet	681	.....
10 feet	435	.....
12 feet	302	.....
16 feet	170	.....
18 feet	134	..... 154
20 feet	108	..... 124
25 feet	70	..... 80
30 feet	48	..... 55
35 feet	35	..... 40
40 feet	27	..... 31
45 feet	22	..... 25

A finer lot of trees never came to this territory.—G. E. Cooper, Utica, Mich.

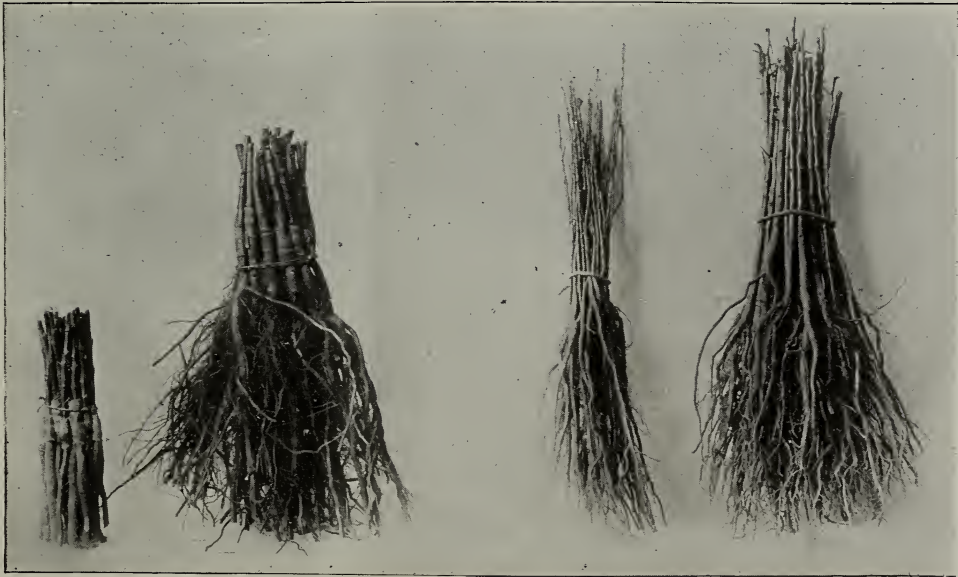
Intercropping and the Use of Fillers

To plant an orchard and then wait for it to come into bearing is a rather long time investment and few farmers or fruit growers can afford to wait until then without receiving some returns from the land occupied, and the labor and expense connected with it. This difficulty may be overcome by growing bush fruits, annual crops or early bearing and maturing fruit trees as fillers. But if you plant fillers, do it with the determination to remove them just as soon as they begin to crowd the other trees, or when the permanents come into bearing. If the filler plan is adopted you must remember that you must make greater efforts to conserve the moisture and fertility of the soil.

Peaches make good fillers in most localities. Pears should seldom be planted among apples because of the difference in cultivation required for these two kinds of fruit. Of the apples, Wagener, Grimes, Oldenburg, Wealthy and Yellow Transparent are successfully used as fillers.

Mixed Planting

Many varieties will not bear well when planted alone or in large blocks, because those varieties are more or less self-sterile. They require the pollen from other varieties to fertilize and cause the setting of fruit. Inasmuch as all varieties benefit by cross pollination it is good practice to plant not more than four or five consecutive rows of one variety.



Grafts
Piece-Root

French Crab
Whole-Root Grafts

No. 2
Seedlings

No. 1
Seedlings

PIECE-ROOT VS. WHOLE-ROOT TREES.

Above is shown the piece-root and whole-root graft, also No. 1 and No. 2 fruit tree seedlings. Each one of the bundles contains the same number of grafts and seedlings. The superior value of the whole-root trees must be readily apparent even to the inexperienced; still there are nurserymen who will argue that piece-root and No. 2 seedlings are equal to whole-root and No. 1 seedlings. We use only the strongest whole-root stock and the results are most gratifying. We beg the intending planter to consider the value and trueness of variety of our trees. **We use French Crab apple roots only.**

THE WONDERFUL BOSCH PEAR



Scientifically improved under the Greening Method, the Bosc Pear will revolutionize fruit growing. Its profits as a market pear are astonishing. From \$3.00 to \$5.00 a bushel an average price. Large size, $3\frac{1}{2}$ to 5 inches; a good late fall keeper; the most luscious, honeylike flavor; beautiful golden color, productive and early bearer. Considered years ago as an impossible variety to grow with success on account of its feeble, straggly growth. Under the Greening Method we top-work the Bosc on the stem of the Kieffer and French Pear root, thus changing the tree to a strong, vigorous grower. We trade mark every tree. See pages 14 and 33.

THE PEDIGREE TREE

While Mr. Edward G. Greening now general manager of The Greening Nursery Co., was attending Cornell, the agricultural world had just awakened to the now well known and admitted fact, that it is possible to breed up all varieties of grains and vegetables by selection.

Mr. Hays, then Director of the Minn. Experiment Station, had been breeding wheat for a number of years and had just published his first report.

The increase in yield and improved rust resisting qualities obtained were remarkable. At the same time the Wisconsin Experiment Station was making wonderful progress in the breeding of a Dent Corn, which would mature in the short summer season of that climate.

About this time, Mr. Greening visited Mr. Roy E. Gibson, expert bud and scion collector for the Company, at South Haven, Michigan. Be it known, that there are none who are better posted on fruit and fruit growing than Mr. Gibson. Naturally, their talks gravitated to fruit and how it could be improved—which is always a live subject among nurserymen.

Mr. Greening asked Mr. Gibson what he thought could be done in the breeding up of fruit by selection as practiced by the grain and vegetable growers of the Agricultural world. Mr. Gibson believed as Mr. Greening believed. And during their conversation which was begun in an automobile trip from South Haven to Fennville, a most wonderful plan to improve fruit trees was born. The conversation was so interesting that after reaching Fennville, they remained in their car, five hours discussing the pros and cons of this plan.

It was during this talk that the idea came to them and they did not stop the conversation until their plans were perfected. The scientific results and the manner in which the tests are made are not yet ready to be given to the general public.

Suffice it to say that the Department of Agriculture at Washington, D. C., know of our work; that the Experiment Stations of Michigan, Indiana, and Ohio, are particularly well informed as to what we are doing along this line and that you who read this may know we actually do breed and improve on stock from trees of exceptional merit in actual growing orchards, we give the record of our new South Haven peach.

This peach originated on the farm of A. G. Spencer, at Kibbie, Mich., about eight miles from South Haven. Mr. Spencer set out about 200 yellow St Johns' which he purchased from us in 1908. All proved to be true to name except this one tree. We cannot explain scientifically how this happened to appear but we think it a bud variation of the Yellow St. John, from the fact that it ripens with the Yellow St. John's and yet all of its other characteristics are entirely different.

As Mr. Spencer is one of the best peach growers in the State, he at once noted the wonderful characteristics of this tree and called out attention to it.

We at once sent Mr. Gibson to look it over carefully and he found it to be a very vigorous grower, much more spreading than upright, altogether an ideal tree for orchard planting. He made a record of it and has since had it under his observation.

Mr. Gibson's record shows this tree planted in the Spring of 1908, bore in

1911	25 lbs. of fruit	1915	200 lbs. of fruit
1912	50 lbs. of fruit	1916	250 lbs. of fruit

1913 200 lbs. of fruit	1917 325 lbs. of fruit
1914 150 lbs. of fruit	1918 80 lbs. of fruit
1919 115 lbs. of fruit	

Now this very remarkable record indicates heavy bearing qualities. It is very hardy, having withstood the severe winter of 1917-18 and bore 80 lbs. of fruit the summer following.

The fruit is about the same size as the Elberta but of better color having a redder cheek. The skin is thicker than that of the Elberta, thus making it a splendid shipper, as we have tested it thoroughly.

It is superior to the Elberta, in that it withstood the severe winter of 1917-18, when the Elberta orchards were entirely frozen out. Mr. Spencer's Elberta orchard was an entire failure, while this tree bore fruit. Its greatest superiority, however, is in the fact that it ripens earlier than the Elberta, and at a time when the price of fruit is highest.

Because of the wonderful characteristics of this peach we have named it South Haven and have spent considerable money to propagate it. We have had it in the nursery for several years but it was not until the summer of 1919 that we dare offer it—the growers near Mr. Spencer's farm taking all we could propagate. In 1919 we had a few thousand surplus and we hope to be able to supply the fast growing demand from now on.

During the past few years we have introduced the New Prolific, Banner and Kihlken Smock peaches; the Winter Banana Apple and the Austrian Prune Plum, all of which are known country wide.

Now a pedigreed tree is a tree that has been propagated by means of grafting or budding with scions taken from a bearing orchard tree, that is under the observation of our expert (Mr. Gibson), who keeps a careful record of everything for and against it. If the fruit is superior in quality, the tree hardy and its habits good, we cut scions. If not superior to the usual or ordinary tree of that variety, we do not use it.

As far as we know we are the only nursery that is making a practice of improving the old, leading standard varieties of fruit trees, by a system of careful selection of scions taken from orchard trees that have shown marked superiority in size, color and quality of fruit.

Luther Burbank, the wizard horticulturist, at his home in Santa Rosa, California, (in conversation with the writer) highly endorsed our system of breeding up the Pedigree Tree and commented upon it as being one of the highest ideals in horticultural research. Mr. Burbank emphasized his remarks by stating that our system of breeding Pedigree Tree would prove to be worth millions of dollars to the fruit growers of this country.

Mr. Cressey, horticulturist, in a recent number of The Saturday Evening Post, published an article on the pedigree tree propagation from scions taken from bearing trees, saying among the many good things in favor of this idea, that "It would pay the fruit growers to pay double the price of Pedigreed Trees, considering the benefits we would derive from them after they come into bearing, and the great value such an orchard would have over the trees in the ordinary way."

In this great work we have the co-operation of leading horticulturists, agricultural colleges, and thousands of our customers, who are working hand in hand with us.



HOW PEACH TREES LOOK AT BUDDING TIME.

The trees here shown are in process of being budded. Notice the size at which this operation takes place. In the following spring the trees are cut back and then the bud, which has lain dormant all the winter, will start its growth. Mr. Walter Greening, shown in the picture, is a well-known authority on the scientific growing of trees.

GREENING'S LOW-HEADED TREES

WILL ADD MILLIONS TO THE WEALTH OF THE COMMERCIAL FRUIT GROWER. SOME ADVANTAGES OF THE GREENING LOW-CROWN SYSTEM.

1. Our new system of low-heading all kinds of fruit trees brings the fruit closer to the source of water supply, and this is important, since 95 per cent of the fruit is water.
 2. Spraying high-headed trees is expensive. It costs only about one-half as much in labor and materials to spray low-headed trees.
 3. There is a great saving of labor in pruning and thinning.
 4. The expense of picking is greatly reduced for reasons that the picker can gather the entire crop from a step-ladder or an elevated platform.
 5. A low-headed tree has a stronger framework than one that is perched up high on a tall trunk. Hence there is less injury to the limbs by wind storms or heavy crops, and also less loss from wind-falls.
 6. A low-headed tree suffers less from sun-scald, winter injury and other diseases because there is less exposed surface.
 7. A low-headed tree develops a larger, stronger root system.
 8. The quality of the fruit is much improved and the yield greatly increased.
- So important is this subject of low-heading that we have published a special bulletin on the subject. Mailed free to all who request it.

Your trees can't be beaten by any company.—Roy Freemire, Vermontville, Mich.

GREENING'S TOP-WORKED TREES

A SCIENTIFIC TRIUMPH · OUTWITTING NATURE.

To change the nature of a tree by scientific treatment may well be termed "Outwitting Nature." Since it has been found that the body or stem of a tree controls and regulates the formation and development of the root system—and, likewise, the top of the tree—it is possible to completely change the nature of a tree without in any way affecting the quality of the fruit, by infusing into it a hardier, more productive and more vigorous element of tree growth; and by giving it a stronger, more vigorous and deeper growing root system. This new science, as applied in the Greening Method, completely sets aside and corrects any feeble or weak habit of growth, thus changing the weak grower and shy bearer to a strong, vigorous and productive tree.



TOP-WORKED BOSCH PEAR ORCHARD.

A photograph of an orchard of top-worked Bosc pears on the farm of Mr. G. W. Griffin at South Haven, Michigan. This orchard has long been the attraction of many horticulturalists from far and near, and enjoys the reputation of being the most profitable fruit orchard in the entire Western Michigan fruit belt. Unlike other varieties of pears, this orchard of Bosc's yields a heavy crop regularly each year. When you plant an orchard of Greening's Top-worked Bosc Pears, you have one of the greatest assets any farm can possess.

The trees you shipped this year are extraordinary.—H. W. Blasey, Pemberville, O.

What the Greening Science Has Done for Horticulture

The Bosc pear, a late fall variety, well known for many years as a fruit of unsurpassed richness and flavor, and undoubtedly the most delicious dessert pear known, has as an orchard tree, been considered worthless because of its miserable and weak habit of growth; but under our scientific treatment it has been restored to a strong, thrifty and heavy bearing tree.

For the Bosc we top-graft on the stem of the Kieffer with French pear roots, thus combining three splendid elements into one. The combination makes a vigorous growing and prolific tree, as well as a strong, hardy trunk which will stand the extremes of heat and cold, and likewise will produce and carry a heavy crop of fruit. When it is considered that the Bosc brings the highest price of any pear grown, frequently selling for as high as \$4.00 to \$5.00 per bushel in the commercial markets, it will readily be seen what top-grafting has done for this one variety of fruit alone.



THE GRAFT.

Notice how completely the union has taken place between scion and stock. We have tested the strength of a number of these grafted trees by bending them over to see if they would break, but so perfect was the union that invariably the break occurred either above or below the graft.

varieties, that in any way show weakness of growth, tenderness of wood, unproductiveness, or any other undesirable feature.

J. W. Cleaver, of Northville, Michigan, says in a letter dated March 4th, 1919: "The top-worked Steele's Red I bought from you came into bearing in five years. All perfect apples. I planted six acres of them in 1913—another six acres in 1914. I find when you have Steele's Red to sell you don't have to look for a buyer—buyers come to you and the prices they offer are higher than for any other variety."

John H. Dreffein, of Oak Park, Ills., says under date of Dec. 9th., 1918: "Five years ago I set out quite a few Winter Banana and Steele's Red and wish to report they are doing fine. I had Steele's Red bearing from two to fifteen apples five years from date of planting."

Steele's Red. Sometimes Called the Red Canada, Completely Restored by the Greening Method

It is a well known fact that Steele's Red is one of the choicest and most valuable varieties of all winter market apples. Because of its beautiful, rich red color, its excellence of quality, and its wonderful keeping and shipping qualities, Steele's Red is of such great market value that it generally brings from one to two dollars more per barrel than the other winter varieties. Moreover, it is especially valuable for exportation to distant countries. However, on account of its poor and feeble growth, this valuable variety has been discarded from the list of profitable fruits by nurserymen and fruit growers.

Under the Greening System of treatment, by top-grafting Steele's Red on the stem of the Gideon (a tree considered to be the most vigorous grower and hardest of all apples) and the use of the French Crab root as a foundation, all weakness of growth of Steele's Red has been eliminated. Not only that, but we have also produced by this system an orchard tree that will bear heavily of an excellent quality of fruit each year, instead of every other year as is common with many of our well known varieties. This change which we have brought about in Steele's Red now places it on the list with the most profitable varieties of American apples. The Gideon stock has a tendency to force a strong, vigorous, downward-growing root system and to establish the tree deeply in the subsoil. The combination of stock used to top-graft Steele's Red, is in every way suited to make the tree hardy, productive and long lived. What we have done for Steele's Red is possible to do with all other

The Grimes Golden Apple Improved by The Greening Method

The weakness of Grimes Golden is in its susceptibility to collar rot. This tendency is more serious with this variety than any other, hence the tree bred as usual is short-lived. We overcome this defect by the double-working process. The trunk of this variety is also subject to sun-scald when grown as usual but by our method of double-working in which we supply a trunk of a more vigorous and hardy variety, we eliminate its faults, and grown by this method, we secure a tree free from every fault and as long-lived as any.

In the foregoing we mention only two varieties of apples of entirely different characteristics but they practically illustrate the objectional features usually found in the apple family. All varieties of apples having the objectionable features referred to in the varieties mentioned may be treated in exactly the same manner with the most complete success. Under this method we have overcome some of the serious obstacles that have presented themselves in the past to the American fruit grower.

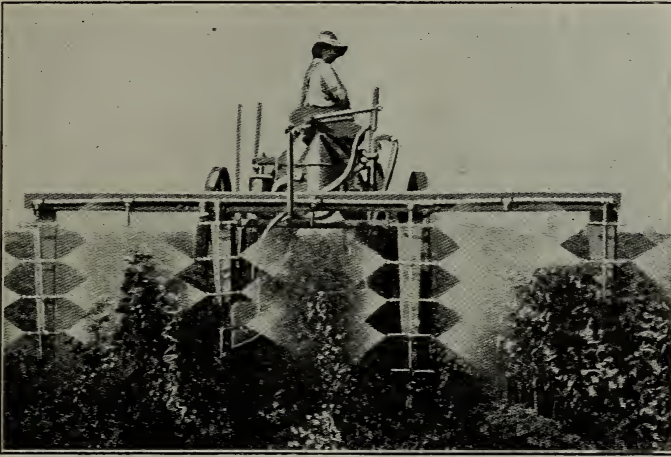
Anyone having a desirable strain of fruit can have them top-worked by us, provided arrangements are made in proper time for the shipment of the scions. During the past season we received scions from a large number of fruit growers, to be propagated in our nurseries by the Greening method. A hundred trees is the minimum number we can contract to top-work.



A THREE MONTHS OLD ORCHARD.

Orchard of apples with peach fillers owned by Mr. George K. March of Hillsdale, Mich. The trees were planted April, 1913, and the photograph taken July 22, 1913. Shows what Greening's Pure Pedigree Bred trees do in three months.

I wish to thank you for a fair deal.—O. L. Vanzile, Hamilton, Ind.



SPRAYING ON A BIG SCALE.

Our tree blocks are sprayed frequently and thoroughly. The picture shows how it is done. Five rows at a time; each tree is touched by the spray from tip to root. We thus keep our nursery rows free from disease. We never allow it to get in, hence we never have any to drive out. No bugs allowed!

Fruit Department

Our Horticultural Department on scientific research has given special attention to the improvement of the apple tree. Among fruit products, the apple is now considered the leading article of food throughout the world. As a health food it is absolutely unsurpassed. It is eminently proper that the apple should receive special attention.

The world is certain to profit millions by our new scientific discoveries in tree growing and training for the "ideal orchard tree."

The apple orchard may be filled in with so-called fillers, such as are mentioned on page 9, which come into bearing in three to four years, producing many crops before the apples grow large enough to cover the ground. A large profit may be made from the orchard before the apples come into bearing. (See page 9.)

SUMMER APPLES

✓ **Carolina Red June**—See Red June.

✓ **Early Harvest** (Early June)—Medium to large; pale yellow; fine flavor. Tree a moderate, erect grower and a good bearer. Middle to end of August.

✓ **Early Strawberry**—Medium; striped with deep red; tender, subacid and excellent; a poor grower but productive. August.

✓ **Golden Sweet**—Rather large; pale yellow; very sweet and good. Strong grower and good bearer. August.

✓ **Red Astrachan**—Large, roundish; nearly covered with deep crimson, overspread with a deep bloom; juicy, rich, acid, beautiful. The tree is a vigorous grower with large foliage. It is a good bearer and very hardy. August.

✓ **Red June**—Medium size; red; flesh white, tender, juicy, subacid; and abundant bearer; moderate grower. July.

✓ **Strawberry**—See Early Strawberry. Late Strawberry and Washington Strawberry.

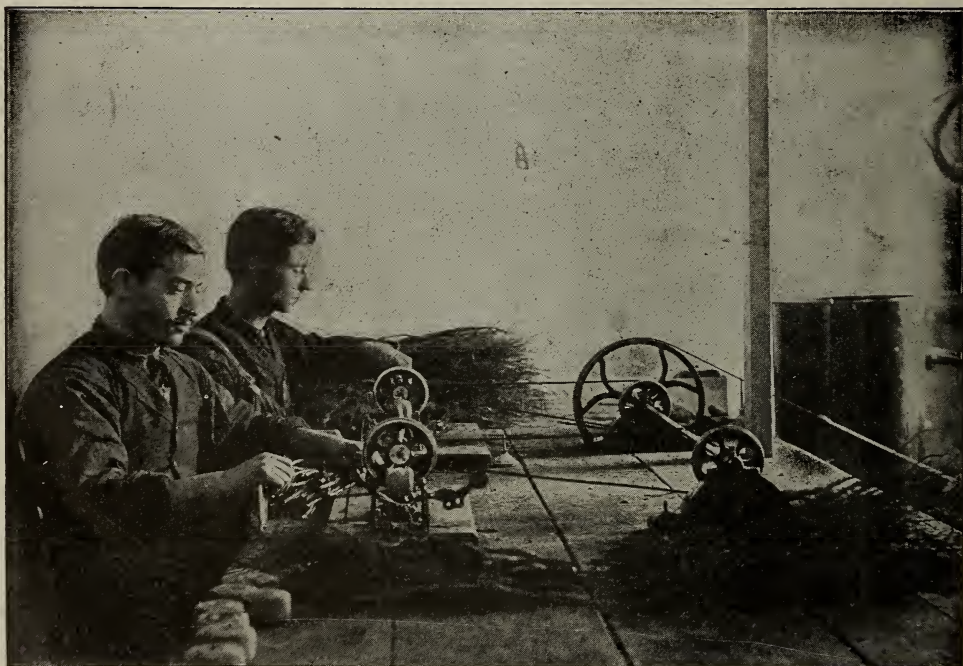
✓ **Sweet Bough**—Large; pale greenish yellow; tender and sweet; moderate grower and good bearer. August.

✓ **Yellow Transparent**—"The most valuable early apple ever introduced." Tree an upright grower and a very early and abundant bearer. Fruit of good size; skin pale yellow; flavor acid and very good. Ripens from five to ten days ahead of Early Harvest. July. (See colored illustration.)

I never saw nicer trees.—Frank Aseltine, Gregory, Mich.

AUTUMN APPLES

- Alexander (Emperor)**—Of Russian origin. Very large; deep red or crimson; flesh yellowish white. Very hardy. Sept. and Oct.
- Autumn Strawberry**—Medium; streaked; tender, juicy; fine, productive and desirable. Sept. and Oct.
- Bietigheimer**—A rare German variety, very recently introduced. Fruit large to very large; skin pale green color.
- Chenango**—Medium size; oblong and indistinctly ribbed; of a light color, splashed with dark crimson; flesh white, juicy, very mild and tender, slightly subacid. Sept.
- Duchess of Oldenburg**—See Oldenburg.
- Fall Pippin**—Very large; yellow; tender; juicy and rich. Tree vigorous. Oct to Dec.
- Golden Sweet**—Large, round, pale yellow, rich and sweet in flavor, good to very good quality. Good as market apple. Sept. and Oct.
- Gravenstein**—Large, striped and beautiful; tender, juicy and highly flavored; vigorous and productive. Sept. and Oct.
- Maiden Blush**—Rather large, oblate; quite smooth and fair; pale yellow with beautiful red cheek; tender, sprightly, pleasant acid flavor. Fair grower and good bearer. Sept.-Oct.
- Munson**—Large; pale yellow with red cheek; tender, rich and good. Fine grower and bearer. Sweet. Oct to Dec.
- Oldenburg (Duchess)**—Of Russian origin. Equal to Winter Banana in hardiness. Large size, roundish; streaked with dull red and yellow; flesh whitish, juicy; flavor slightly subacid. Tree a vigorous grower, very hardy; very early and abundant bearer. While it is indispensable in the North, it is almost equally so in the South. We confidently recommend it for the orchard as one of the most valuable sorts for the market or domestic use. Sept.
- Pippin**—See Fall Pippin, and Yellow Newton.



WRAPPING APPLE GRAFTS BY GASOLINE POWER.

Here we show our latest graft wrapping machine, operated by a gasoline engine. Two wrapping machines are shown. One man with machine will wrap over 15,000 whole root grafts in a single day, more than three times as many as by hand, and the work is far superior to the old method in point of quality as it insures a better union of the graft. Note the whole-root graft in picture on page 9.

Good trees, fine roots.—A. D. Lair, Mexico, Ind.



OUR FUMIGATING HOUSE TREES FREE FROM DISEASE AND INSECTS—FUMIGATION.

Pursuant to the requirements of the State law, we have built two large fumigating houses in which all stock is thoroughly fumigated with Cyanide of Potassium and Sulphuric Acid before shipment, as prescribed by law, which absolutely destroys all insects, also fungus in any form, without injury to the trees. A wagon load of steam-dug trees, showing large bunches of roots, has been brought into the fumigator, and our chemist is in the act of putting in the charge of chemicals previous to closing the airtight doors.

Pumpkin Sweet—A very large, round yellowish russet apple, very rich and sweet. Valuable. Oct. to Nov.
Twenty Ounce — Very large, nearly round; yellow, striped with red; quality good; vigorous and good bearer.

Nov. to Dec.
Washington Strawberry—Large, yellow, shaded; splashed and mottled with rich red; crisp, tender, juicy, brisk subacid; a hardy, vigorous grower, and an early and abundant bearer. Sept. and Oct.

WINTER APPLES

Arkansas Black—Tree very hardy and thrifty; an early and uniform bearer; the apple is large, smooth and round, black dotted with whitish specks; the flesh is yellow, very juicy and delicious flavor; one of the best keeping apples. Specimens have been kept until August the following year.

Bailey Sweet—Large; deep red; tender; rich, sweet; moderate, upright grower, good bearer. Nov. to April.

Baldwin—Large, roundish; deep, bright red; juicy, crisp, subacid, good flavor. Tree vigorous, upright, and very productive of fair, handsome fruit; one of the best and most popular winter apples. Jan. to April.

Banana—See Winter Banana.

Bellflower—See Yellow Bellflower.

Ben Davis—A large, handsome, striped apple of fair quality; tree very hardy, vigorous and productive; a late keeper; highly esteemed in the West and Southwest. Jan. to May.

Canada Red—See Steele's Red.

Delicious—A good sized apple with the surface almost covered with a beautiful, brilliant dark red and blending to a golden yellow at the blossom end. The flavor is sweet, slightly touched with acid. Flesh fine grain, crisp and juicy. A very valuable market variety. Nov. to Jan.

Esopus (Spitzenburg)—Medium to large; deep red; flesh yellow, crisp, subacid, highly flavored; tree a light grower,

but bears and grows well when transplanted in rich soil. Nov. to March.

✓ **Fallwater**—Very large, globular; yellowish green, dull red cheek; juicy, crisp, pleasant subacid flavor, tree a strong grower and productive. Nov. to Jan.

✓ **Fameuse (Snow)**—Medium size, roundish, handsome, deep crimson; flesh snowy white, tender, juicy, highly flavored and delicious. Productive and hardy. Oct. to Jan.

✓ **Gano**—Tree very healthy, vigorous, hardy, having stood 32 degrees below zero without injury. A rapid grower, large and spreading in orchard; fruit spurs numerous, shoots long and smooth, brown, with protuberances on the limbs like the Ben Davis. An early, annual and prolific bearer; fruit of fair quality. Foliage large and dark. Feb. to May.

✓ **Gideon**—Raised in Minnesota from crab seed by Mr. Gideon. An upright grower; medium to large; color yellow, with vermilion blush on sunny side; mild acid; quality poor. Tree one of the hardiest; best for top-working.

✓ **Golden Russet**—Medium size; dull russet, with a tinge of red on exposed side; flesh generally crisp, juicy and highly

flavored; tree a vigorous grower and great bearer. Dec. to May.

✓ **Greening**—See Rhode Island Greening and Northwestern.

✓ **Grimes Golden**—An apple of the highest quality; very rich, subacid, with pear flavor; medium to large size; yellow; tree hardy, vigorous, productive. Nov. to March.

✓ **Hubbardston**—Large; striped yellow and red; tender, juicy and fine; strong grower and good bearer; one of the very best. Dec. to May.

✓ **Jonathan**—Fruit medium, conical; skin nearly covered with dark or lively red; fine grained, very tender and finely flavored; tree slender and spreading, with light colored shoots; a favorite market variety. Nov. to March.

✓ **King of Tompkins County**—See Tompkins' King.

✓ **Longfield**—One of the imported Russian varieties; a free, spreading grower; early and abundant bearer; fruit medium to large; yellowish green, thickly covered with red stripes, a decided blush on the sunny side; rich, sprightly subacid. Dec. to March.

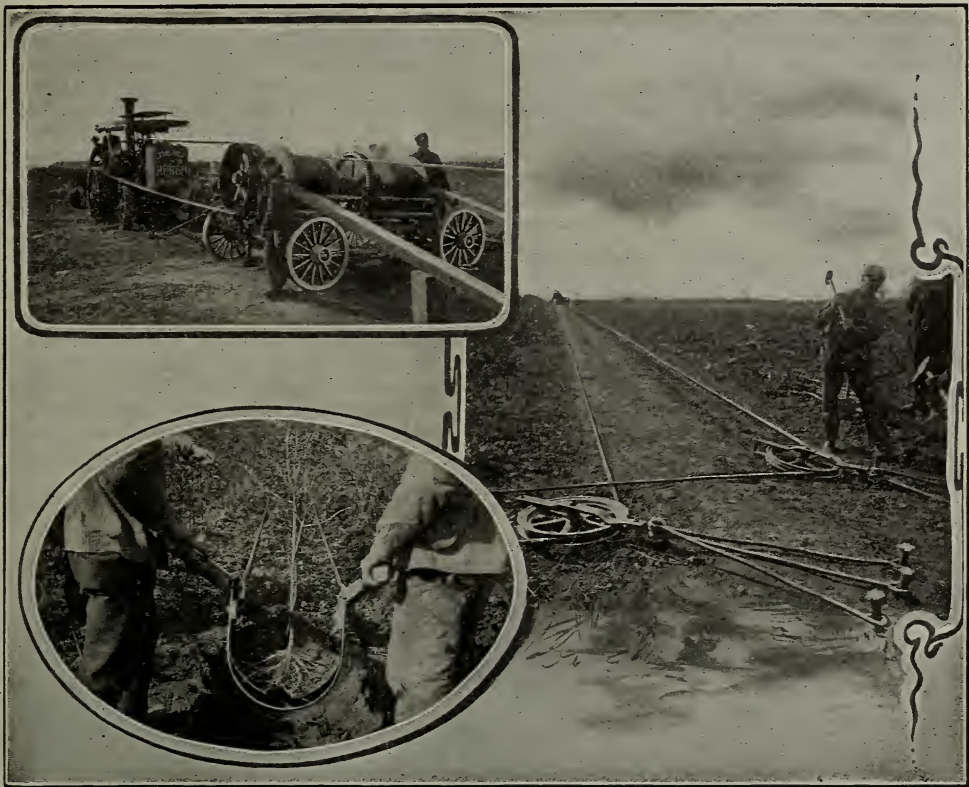
✓ **L. S. Pearmain**—Large, yellow, striped, splashed and shaded with red; flavor mild, rich and pleasant, sprightly sub-



OUR GROUP OF CHAMPION BUDDERS

An aggregation of skilled workmen in the art of budding trees. A small army of active people selected from the most reliable, skilled and intelligent help at the nursery. With this force we are able to bud about 85,000 trees per day. The varieties are carefully guarded against mixture so that no strangers may get in. Mr. Fred Duvall, our field foreman in charge of the budding, has been in our employ more than thirty years.

Trees were the straightest and smoothest I ever had.—Gen. B. Reed, Mt. Gilead, O.



GREENING'S STEAM DIGGER IN OPERATION

Digs 200,000 trees at a single setting. Our slogan at digging time, "Get all the root," and we certainly get it.

acid, very good. A valuable market apple. Tree hardy, vigorous and productive. Oct. to Feb.

Mammoth Black Twig—Very large; dark red, nearly black. Tree hardy and very productive. Very valuable market variety in the West. Nov. to April.

Mann—Fruit large, roundish oblate; nearly regular; skin deep greenish yellow when fully ripe; flesh yellowish, half fine, half tender; mild, subacid. One of the latest keepers. Jan. to May.

McIntosh—Medium size, nearly covered with dark red; flesh white, fine, very tender, juicy and refreshing; A good annual bearer of fair, handsome fruit. Resembles the Fameuse, but larger and more hardy, and fully equal in quality. Tree a medium grower. Nov. to Feb.

Missouri (Missouri Pippin)—Large, oblong, bright red, with numerous gray dots; very handsome and of fair quality; an early and very abundant bearer, and very profitable orchard fruit; vigorous. Dec. to March.

Newtown Pippin—See Yellow Newtown.

Northern Spy—Large, roundish, slightly conical, somewhat ribbed; striped, with the sunny side nearly covered with purplish red; flesh white and tender, with a mild subacid, rich and delicious flavor; tree is a strong, upright grower and forms a very compact head; should be kept open by pruning, so as to admit the air and light freely. Begins to bear late. Nov. to March.

Top-worked Northern Spy—See page 14.

Northwestern (N. W. Greening)—Yellow; smooth, rich, of good size, resembling Grimes in shape and color; good quality and an extra long keeper. Tree hardy, vigorous, abundant, annual bearer. Jan. to June.

Ox Noble—A very valuable market fruit. Fruit very large, richly striped and mottled with dark red. In quality equal to the Baldwin, but fruit much larger. Tree hardier than Baldwin, and a splendid, vigorous, erect grower. Originated in Washtenaw County,

I was proud of my stock this spring.—J. H. Behken, Somerset Center, Mich.

Mich.; introduced by us in 1880. One of the best. Nov. to March. (See colored illustration.)

Pewaukee—Raised from the seed of Oldenburg. Fruit medium to large, roundish, oblate; skin bright yellow, striped and splashed with bright red; flesh tender, white, juicy, subacid. Esteemed, especially for cold climates on account of its hardness. Tree vigorous. Jan. to May.

Rambo—Medium size; streaked and mottled yellow and red; tender, juicy, mild flavor. Tree a vigorous grower and good bearer. Autumn in the South; Oct. to Jan. in the North.

Rhode Island Greening—Large, greenish yellow; tender, juicy and rich. A spreading, irregular grower and an abundant bearer. Dec. to April.

Rome Beauty—Large, yellow, shaded with bright red; flesh yellowish, tender, juicy, subacid. A popular market

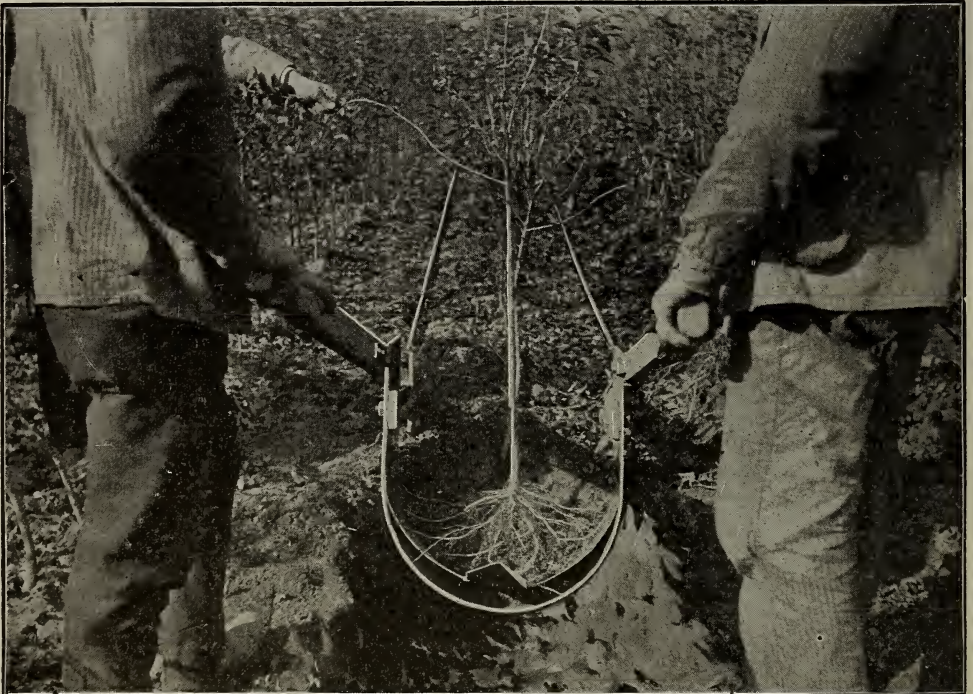
sort in many sections. Nov. to Feb. **Roxbury Russett**—Medium to large; greenish or yellow russet; crisp, good subacid flavor. Tree vigorous and productive. Long keeper. April to June.

Salome—Skin striped; shaded light and deep red over yellow; flesh fine, tender, mild, slightly aromatic, good; its hardness, long-keeping, good quality, uniform size, retention of its flavor quite late, even into summer, will no doubt make it valuable for the West and Northwest. The tree is as hardy as a crab. Jan. to May.

Seek-no-further—See Westfield.

Shiawassee—Said to be a seedling of Fameuse. Medium; whitish shaded, marbled, splashed and striped with rich red; flesh firm and very white, tender, juicy, brisk, refreshing, subacid. Tree vigorous; very productive. Oct. to Jan.

Smith Cider—Large, handsome; red



DIGGING TREES BY STEAM POWER—A SCIENTIFIC TRIUMPH.

Progress is the watchword of the American people. This progressive spirit has manifested itself in the invention of a tree-digging machine, by means of which all kinds of trees, ranging in size from the dwarf-growing kinds up to large shade trees 15 and 20 feet high, may be dug without the slightest danger of bruising or injuring the roots. As shown in the illustration, the ground has been dug away directly back of the digger, exposing to view the steel blade and lifter of our modern tree-digger, running at the time under our mammoth block of whole-root apple trees at a depth of 30 inches. The cables drawing the digger run to pulley blocks stationed at the ends of the rows, thence on a rectangle to the machine operated by steam power, as shown on preceding page. Do not such methods appeal to an intelligent people? With these facilities we are able to furnish trees with abundant masses of fibrous roots, such as will grow and make splendid orchards of strongest fruiting power.

No better stock could have been sent by any company.—F. D. Ketchum, Sidney, Mich.

and yellow; juicy, acid; quality medium. A moderate grower and good bearer; succeeds well in South and West. Dec. to March.

Snow—See Fameuse.

Spitzenburg—See Esopus.

Stark—A long keeper and a valuable market fruit. Fruit large, roundish, oblong, skin greenish yellow, much shaded with light and dark red and sprinkled with brown dots; flesh yellowish, juicy, mild subacid. Jan. to May.

Stayman Winesap—The best of the Winesap family. Originated as a seedling by Dr. Stayman of Kansas. Color a dark, rich red; flesh firm, very fine grained and exceedingly juicy. Tree is a strong grower and will do well on light soil.

Steele's Red—Sometimes called the Red Canada. As a long keeping market apple with good color, it is unsurpassable. Invariably brings \$1.00 to \$2.00 more per barrel than the best of winter apples. The only drawback has been its slow growth of tree. The Greening method of top-working it in the nursery on the hardy, fast growing Gidion stem and French crab root, has completely overcome the difficulty occasioned by its miserable growing habit. Under our scientific treatment of top-working, Steele's Red on hardy, fast-growing stock, it will grow into a bearing orchard as quickly as any of the other varieties of apples.

Top-worked Steele's Red—See page 15.

Sutton Beauty—Medium to large, roundish, handsome waxen yellow, striped crimson; flesh tender, juicy, subacid; good quality, keeps well. Tree a moderate grower and productive. Nov. to April.

Talman Sweet—Medium; pale yellow, slightly tinged with red; firm, rich and very sweet; the most valuable baking apple; vigorous and productive. Nov. to April.

Tompkins' King—Large and handsome; striped red and yellow; tree vigorous and productive; one of the best. Nov. to March.

Wagener—Medium to large; deep red in the sun; flesh firm, subacid and excellent; very productive; bears very young. Dec. to Feb.

Walbridge—Medium size; striped with red; vigorous grower and productive; very hardy. March to June.

Wealthy—A native of Minnesota, where it has proved perfectly hardy, vigorous and productive; fruit of large size; read streaked with white; quality good. One of the most valuable market apples grown. Nov. to Jan.

Westfield—Medium to large; slightly russeted, with dull red stripes; tender, rich, spicy and fine; good grower and bearer. Nov. to March.

Winesap—Medium; dark red, subacid, excellent. Tree a moderate grower and abundant bearer. A favorite market variety in the West. Dec. to May.

Winter Banana—Large, fine grained and smooth; golden yellow shaded with beautiful bright red; delicious subacid, highly perfumed; highest quality and finest flavored apple grown. Flesh golden yellow, very rich and spicy, surpassing the finest peach, plum, apricot or pear. Tree very hardy and well adapted for the coldest climates. It has fruited in Wisconsin, where only one other variety—the Oldenburg—can be grown. It is a remarkably early bearer; trees two and three years old often bear full crops of fine, large fruit, which sells at sight. It is pronounced by leading authorities as the finest table apple in cultivation. (Read their opinions in this catalogue.) It originated in Indiana, and is an accidental seedling introduced by us in 1890. Every tree sent out by us is "Trade Marked." Oct. to March. (See colored illustrations and read testimonials.)

Wolf River—Tree very hardy and productive; fruit large and handsome; red color; flesh white, subacid, poor quality. Nov. to Jan.

Yellow Bellflower—Large; yellow, with blush cheek; tender, juicy, subacid. In use all winter. Very valuable. A moderate grower and good bearer. March.

Yellow Newtown (Newtown Pippin)—One of the very best apples as to quality; very juicy, crisp and highly delicious flavor; fine keeper. Tree light grower while young. Dec. to May.

York Imperial—Apple greenish yellow where not covered with bright red. Flesh crisp, firm, subacid and good. A good keeper and retains its flavor. Not very hardy for extreme cold climates.

Your trees are uniform; the finest I ever saw.—James Laughlin, Pleasant City, Mich.

YELLOW
TRANSPARENT

OX
NOBL

WINTER
BANANA





THE FAMOUS ORIGINAL WINTER BANANA APPLE TREE AND ITS ILLUSTRIOUS ORIGINATOR, MR. D. M. FLORY.

Tree six and one-half feet in circumference three feet from ground, forty feet spread; thirty-eight years old.

CRAB APPLES

Within the past few years much attention has been given to improving this class of fruit, because of their adaptability to cold sections where only a few varieties of apples can be successfully grown. Crab apples succeed equally well in all sections, and are valuable for preserving, jelly, ornament, and some of the improved sorts are excellent for eating. A valuable market fruit.

Grant—Tree an erect, vigorous grower; fruit in dense clusters, quality very fine. Oct. to Dec.

Hyslop—Fruit large; produced in clusters; roundish ovate; dark, rich red, covered with thick blue bloom; stalk long and slender; tree very hardy and vigorous grower. Oct. to Dec.

Quaker—A new, hardy, strong growing sort; bears large crops of fine fruit. Dec. to March.

Transcendent—All things considered, this is one of the most valuable varieties of Crab Apples grown. Tree remarkably vigorous, growing to a good size, and immensely productive. Comes into bearing the second or third year, bearing every year after and producing good crops by the fourth year.

Fruit very large, from one and one-half to two inches in diameter, being large enough to quarter and core for preserving and drying. Excellent for sauce and pies. The best of its size for cider, being juicy and crisp, and is also, by many considered a good eating apple. Skin yellow, striped with red. The best for wine. Sept. to Oct.

Van Wyck—Large; skin mottled with bright red; sweet. Tree vigorous.

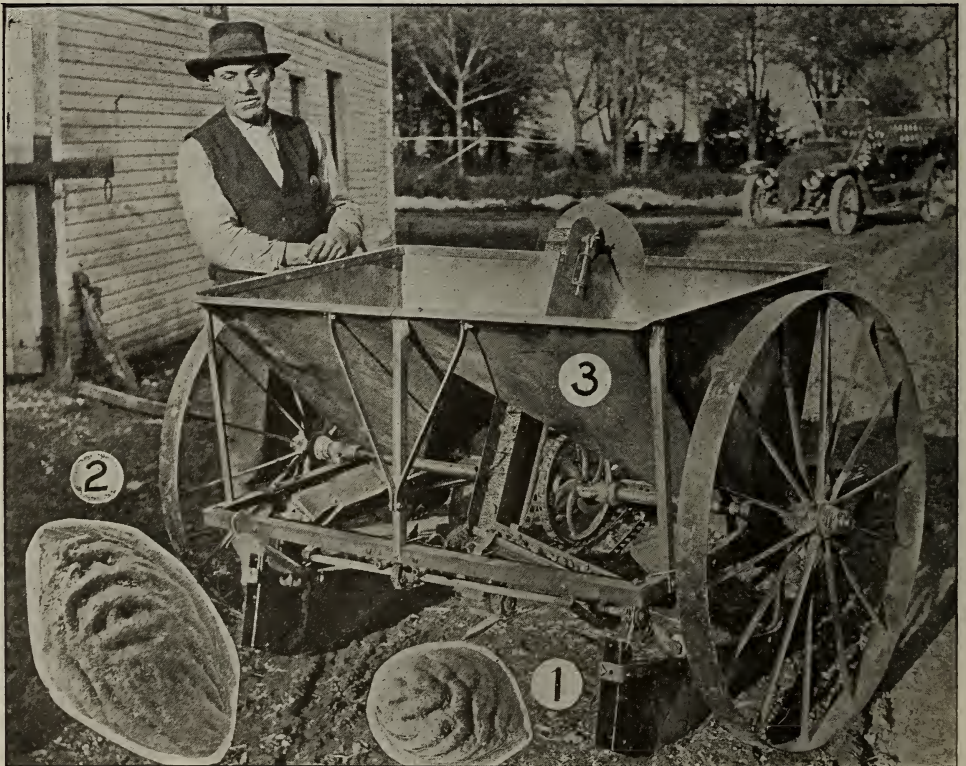
Whitney—Large, averaging one and one-half to two inches in diameter, skin smooth, glossy, green, striped, splashed with carmine; flesh firm, juicy and rich. A great bearer and very hardy. Tree a vigorous, handsome grower. Splendid for wine.

REASONS WHY GREENING'S PEACHES HAVE STRONG ROOTS

Illustration No. 1.—Genuine Tennessee natural peach seed, used exclusively by us. These pits are gathered for us at a large expense in the mountains of Tennessee, where they grow wild. The crop is limited to only a few hundred bushels each year, hence the scarcity and high price. This is the strain of seed from which we grow our wonderful stock of peach trees, unsurpassed in strength of root and power of growth, also freedom from disease. Our peach trees are absolutely free from disease of any kind. We use no other seed, though the cost is six times more than canning pits. This seed is what makes the wonderful root system on our peach trees. Our supply of genuine natural Tennessee pits is contracted for in advance, insuring us a supply from year to year.

Illustration No. 2.—Canning factory peach pit used by 90 per cent of the nurserymen. The seed in this large pit, coming from a grafted tree, is always degenerated and often diseased. The seed is always shrunken and extremely weak in germinating and growing power. To prove this it is only necessary to open up and examine a pit from a grafted peach tree. This class of pits is never used by us.

Illustration No. 3.—Our double row peach pit planter and its inventor, our master genius, Mr. John W. Romine. This is only one of the many inventions of useful machinery used at our nurseries for which Mr. Romine's productive brain is deserving of the highest credit. From 75 to 100 bushels of pits can be planted in a single day with one man and team doing the work of fifty people far better than could ever be done by hand. Mr. Romine is master mechanic at the nurseries, with a complete machine shop for iron and wood work, and is constantly engaged in the work of inventing new machinery for use in our nurseries. Mr. Romine is also inventor of our six-row, two-horse, double automatic sprayer, which is used in spraying all our nursery stock.



Thank you for your honesty and fair dealing.—August Wager, Kewanee, Ill.



SOUTH HAVEN PEACH (Photo.)

Two weeks earlier than Elberta and fully as large (note size in photograph). Without question the greatest peach in cultivation. Our buds are taken from the original tree. See complete description in list of varieties below.

PEACHES

Alexander—Medium size; skin greenish white, nearly covered with rich red; flesh melting, juicy sweet; tree vigorous and productive; ripens three weeks earlier than Early Crawford. Cling. July.

Banner—Originated at Woodslee, Ontario, Canada. Fruit large, round and very handsome. Tree very hardy and an early and abundant bearer, often producing a crop of fruit the second year after planting. Considered by leading authorities the best and most profitable peach ever introduced. No other late peach compares with it in quality. In bearing and quality of fruit it equals New Prolific. Unsurpassed in point of richness of flavor. A strong, vigorous grower. Winner of ten first premiums at Canadian agricultural fairs. Color deep yellow, with a rich crimson bloom. Flesh golden yellow from pit to skin; pit small, perfectly free. Its shipping qualities are unsurpassed. Season of ripening October 1st, the very best time to bring the highest price in market. "Trade Marked." (See colored illustration and testimonials.)

Beer's Smock—We have discontinued growing the Beer's Smock and use the Kihlken Smock instead. We did this because we have found many orchards of Beer's Smock throughout the country have failed to bear and some that have borne very sparingly. We know the strain has degenerated, therefore, we in every case urge the planting of the Kihlken Smock.

Bronson—Large; yellow, with handsome red cheek; flesh sweet, rich; fine flavor; tree hardy and a good bearer. Middle of September.

Carman—Large, resembles Elberta in shape; color creamy white with deep blush; skin very tough, flesh tender; fine flavor and quite juicy. Ripens with Rivers. One of the hardiest in bud; quality very good. August.

Champion—A new variety originated at Nokomis, Ill.; very hardy and productive. Fruit large and attractive; skin creamy white with red cheek; flesh white, juicy and sweet; cling. August 15th.

Chili—Medium size, yellow, with slight blush; flesh yellow, luscious and well

BANNER

ELBERTA

NEW
PROLIFIC

FR





MAMMOTH BLOCK OF PEACH TREES.

Block of 2,000,000 Low-Top peach trees growing at Greening's Big Nurseries. The seedlings were grown from Tennessee Natural Peach Pits and the buds taken from bearing trees of unusual merit, thus infusing each variety with the best blood of its kind. The photograph was taken after three months' growth and represents what is positively the largest and finest block of peach trees ever seen in the world.

- flavored. Pit small. Tree very hardy and productive. Middle of September.
- ✓ **Crosby**—Fruit medium size, roundish, slightly flattened; bright red cheek; flesh yellow. Tree unusually hardy. Middle of September.
- ✓ **Dewey**—A perfect freestone peach, ripening with Triumph, but has better form, brighter color on the surface, is equally hardy and productive. The flesh is of uniform color and texture to the pit. July.
- ✓ **Early Barnard**—Medium size, popular peach; yellow, with red in the sun; flesh yellow and very good; tree vigorous and good bearer. One of the hardest. First of September.
- ✓ **Early Crawford**—A magnificent, large yellow peach of good quality. Tree vigorous and productive, although tender in fruit bud. Its fine size and beauty make it one of the most popular sorts. No other variety has been so extensively planted. First of Sept.
- ✓ **Elberta**—Large, yellow with red cheek; flesh yellow, firm, juicy, of fair quality. Exceedingly prolific, sure bearer and hardy. Is doing well in all peach sections north and south. One of the leading market varieties. Sept. 10th to 15th. (See colored illustration.)
- ✓ **Engle** (Engle's Mammoth).—Large, round, oval, suture slight; yellow with red cheek; stone small, free; sweet, rich, juicy. One of the very best market sorts. Early September.
- ✓ **Fitzgerald**—An improved Early Crawford, being fully equal to it in size, quality and color; in Canada and Michigan has proven one of the hardest. Fruit large, brilliant color, bright yellow, suffused with red; small pit, flesh deep yellow, best quality. Last of August.
- ✓ **Foster**—Large; deep orange red; flesh yellow, very rich. Ripens with Early Crawford. Handsome.
- ✓ **Gold Drop**—This variety has a sort of transparent golden appearance. Good quality, a very early and abundant bearer; hardy. Medium size. Last of September.
- ✓ **J. H. Hale**—Originated in the famous Hale orchards in Georgia. Widely

The finest trees that ever came to Lucasville.—Levi Yates, Lucasville, Ohio.

planted. About the size of Elberta. Ripens about five days earlier. Color yellow with deep carmine blush. Good shipper. A handsome peach. Fine variety for market.

Kalamazoo—Medium size; slightly oblong; yellow, shaded with red; juicy, rich, melting; highly esteemed in Michigan. Middle of September.

Kihlken Smock (New)—Larger, better and more beautifully colored than Beers' Smock. Discovered in the orchard of George Kihlken, Danbury, O., in 1909. This peach will be worth millions to fruit growers. The best late peach. First of October.

Late Crawford—Fruit of large size; skin yellow or greenish yellow, with dull red cheek; flesh yellow; tree vigorous and productive; one of the best late sorts. Last of September.

Lemon Free—Almost lemon shape, pointed at the apex; color a pale lemon yellow when ripe. It is of large size, of excellent quality; a valuable market sort. Ripens after Late Crawford.

Mayflower—Earliest peach known, semi-cling, size medium, color bright red;

ripens well to the seed. Young and prolific bearer, new. Last week in June.

New Prolific—The most popular market variety of the present day. Fruit large, golden yellow with rich crimson cheek; flavor very rich and spicy; flesh golden yellow from pit to skin, firm and unusually thick; pit very small; freestone. It stood the cold winter in 1898 better than any other variety. Tree a strong grower and very productive. Ripens fifth to tenth of September, just before Late Crawford. Hundreds of thousands of trees of this variety have been planted out in orchards. No variety has ever been introduced which is finer in quality and more profitable for market. Introduced by us in 1890. (See colored illustration.)

Oceana—In quality, size and color similar to Early Crawford. Small pit and thick yellow flesh. First of Sept.

Reeves' Favorite—Fruit very large and round. Skin yellow with a fine red cheek. Flesh deep yellow, juicy and excellent; tree hardy and adapted to heavy soils only.



Mr. Thomas Crawford's peach orchard third year after planting at Romeo, Michigan. Mr. Crawford is justly proud of this orchard of Greening's Pure Pedigree Bred Trees and sends us a photograph of it every year.

I am well pleased. My trees were packed in fine shape.—R. A. Barnes, Toledo, Ohio.

St. John—A grand peach, ripening a week ahead of Early Crawford and fully or nearly as large in size and equal in quality, color and flavor. Collor yellow with a fine red cheek; fruit round, brilliant, showy; one of the earliest yellow peaches; commences bearing young and produces abundantly. Middle of August.

Salway—Fruit large and roundish; deep yellow with a dull red cheek; flesh yellow, firm, juicy and rich; one of the very best late peaches where it will ripen. Oct.

September Mammoth—Extra large fruit; somewhat elongated. Color yellow. Flesh yellow and delicious in flavor. Free from pit. Good bearer. The finest peach to plant for home purposes. Ripens about September 10th. Tree originated here in Monroe from a seedling. Every home owner should have one or more of these trees. Of northern origin, therefore, hardier than Elberta.

South Haven—Tree vigorous, of semi-spreading type. Very hardy, the original tree having withstood the severe winter of 1917-18 in the locality where the Elberta froze out. Fruit large, roundish, thick skinned, highly colored. Flesh yellow and free from pit. Pit small. Prolific bearer. Fruit very uniform in size. Ripens two weeks earlier than the Elberta or with Yellow St. John about the middle of August

South Haven Triumph—Tree a strong grower and very hardy. Fruit large, yellow with red cheek; flesh bright yellow; great bearer and good shipper. Stone nearly free when fully ripe; a very valuable early yellow peach, ripening with Alexander. July.

Weed's Late Barnard—Above medium size, yellow, with dark red cheek; flesh yellow, red at stone, very rich; tree hardy; very small pit. Middle of Sept.



OUR TREES STAND ALONE.

The bundle of peach trees here shown is standing alone, upheld by the strong and out-spreading roots. It is this kind of roots that make our trees grow. The trees in the picture are specimens of our First class peach trees. Note that they are tall and large in caliper.

PEARS

SUMMER PEARS

Bartlett—Large size; yellow, often with a beautiful blush next the sun; buttery, very juicy and highly flavored. Tree a strong grower, bearing early and abundantly; very popular; the most profitable for market. Last of Aug. and first of Sept.

Clapp's Favorite—A large, fine pear resembling the Bartlett, but without its musky flavor; pale lemon yellow, with red cheek; fine texture, melting, buttery, juicy, with a rich, sweet, delicate vinous flavor. Tree hardy and very productive; very desirable in all sections, and especially so where other varieties fail. August.

French—The tallest growing pear tree known, reaching the height of 100 to 150 feet. A great bearer and hardy. Fruit yellow, medium, perfect in shape, very rich in flavor, highly perfumed—most valuable pear for canning yet introduced; retains its rich flavor after cooking; not a good commercial pear. Middle to last of Aug. (See colored illustration.)

Koonce—Originated in Southern Illinois. A strong, upright grower; hardy; has produced crops when all other varieties were killed by frost. Fruit medium; yellow with carmine cheek; ripens with the earliest. July and Aug. (See colored illustration.)

Summer Doyenne (Doy. de Ette)—Small; melting, sweet; yellowish. Tree vigorous and productive; very early. Aug.

Wilder—Very early, resembling Summer Doyenne; claimed to be a good shipper for an early pear. Small. First of Aug.

AUTUMN PEARS

Angouleme (Duchess d'Angouleme)—Very large; greenish yellow, sometimes a little russeted, makes a beautiful tree; very productive. One of the best. Oct. and Nov. Succeeds best as a Dwarf.

Anjou—A large, fine pear; buttery and melting, with sprightly, vinous flavor. Tree a fine grower and good bearer. One of the very best. Oct. to Dec.

Flemish Beauty—Large, beautiful; juicy, melting, rich and fine; strong grower and good bearer; hardy everywhere. A very popular market variety. Fruit subject to skin scab; spraying with lime and sulphur, mixture 1 gallon to 30 of water, will prevent it. Sept. to Oct.

Howell—Large; light, waxen yellow, with a fine red cheek, handsome; rich, sweet, melting, perfumed aromatic flavor. Tree a free grower an early and profuse bearer. Very hardy and valuable. Sept. to Oct.

Kieffer—Well known everywhere. Said to have been raised from seed of the Chinese Sand Pear, accidentally crossed with the Bartlett or some other kind. Large; skin rich golden yellow, sprinkled thickly with small dots, and often tinted with red on one side; flesh slightly coarse, juicy, with a pronounced quince flavor. Tree very vigorous and an early and great yielder. Next to the Bartlett it has been planted most extensively for market. Nov. to Dec. (See colored illustration.)

Lincoln, Illinois—Large and of good quality. Ripens in late fall. The value of the Lincoln Pear lies in its comparative exemption from blight and disease, in its hardiness and great productiveness. The fruit is medium to large, with a rich aromatic flavor; core small and healthy, and the fruit has a beautiful waxy appearance when fully ripe. Trees grow to an enormous size. Oct. to Nov.

Louise (L. B. de Jersey)—Rather large; greenish yellow, with a bright red cheek; juicy, buttery and melting, excellent; very productive. A fine grower on both standard and dwarf. Oct. to Nov.

Seckel—Small; rich yellowish brown; one of the best and highest flavored pears known; productive. Sept. and Oct.

Sheldon—Fruit large; roundish; yellowish, nearly covered with light russet, slightly shaded with red; flesh very juicy, melting and delicious; tree hardy, vigorous and good bearer. One of the best varieties. Has never been known to blight. Oct.

Vermont Beauty—A beautiful new seedling pear; medium size, roundish, obovate, yellow, nearly covered with carmine; flesh melting, sprightly, fine quality; tree healthy hardy and productive. Oct.

WINTER PEARS

Bordeaux—Large size, with very thick, tough skin, which renders it a very valuable keeper for winter use; flesh melting, juicy, rich; keeps till March. One of the best.

FRENCH
PEAR

DE NANTES

KIEFFER

KOONCE





A splendid block of young pear trees as they stood in the nursery. Note the tall, strong specimens. They will grow in your orchard.

Bosc—Originated in Belgium. Shape, oblate—pyriform, and of very large size. Color, a beautiful yellow, touched with crimson and slightly russeted. In quality it is undisputed as the most delicious dessert pear known. A medium late variety. The tree, however, is a poor grower, but under our scientific treatment has been restored to a strong, thrifty and productive tree. See page 15. This pear always sells at the highest prices, frequently bringing as high as \$4.00 to \$5.00 per bushel in the commercial markets.

Clairgeau (C. de Nantes)—This wonderful late pear was originated by Pierre Clairgeau, of Nantes, France. It is one of the most showy and well-formed pears grown. Fruit large, with a very stout stem. Color when matured is a golden yellow, with a highly colored red cheek. It is one of the most highly flavored pears and the heaviest bearer in cultivation, bearing annual crops when other varieties fail. Fruit is very firm and will not bruise in falling. Tree exceedingly hardy and vigorous in growth, forming a beautiful pyramid. Heavy bearer, even on two and three-year-old trees. Trees usually require propping up the third

year to keep them from breaking down. Oct. to Jan.

Lawrence — About medium; yellow, thickly dotted; very rich, fine flavor. One of the best. Tree a good grower and very productive. Dec. to Jan.

Lincoln Coreless—Fruit very large, handsome appearance; quality only medium, and very few if any seeds. Almost clear of core and seeds, whence its name. A good keeper. Golden yellow. Tree a good grower and very productive; has never been known to blight. Dec. to March.

DWARF PEARS

Dwarf Pears should be planted below the bud, sufficiently deep (three or four inches) to cover the junction of the pear and quince. Dwarfs frequently succeed where Standards fail, especially where the soil is deficient in clay loam. It is very important to select the proper varieties, however, as all varieties of pears do not succeed well as dwarfs. Those most desirable are **Angouleme**, **Clairgeau**, **Louise** and **Seckel**. Among these we find the **Angouleme** and **Clairgeau** the most profitable.

I am pleased to say that, although I have handled nursery stock for a number of years, I never saw a finer lot of stock than that which came from your nursery this fall.
J. H. SWIHART, Mulberry, Ind.

The car of trees came to me in good condition and all have been delivered. They certainly were fine, not a buyer found fault, indeed there was no room for fault-finding.
H. M. HAFF, Deliveryman.

I have nothing but praise for your goods.—P. H. Cummings, Jackson, Mich.

CHERRIES

SWEET VARIETIES

Bing—Among the best of black cherries in existence. It is large, firm and delicious, and a good shipper. Tree hardy and upright grower. Middle of June.

Gov. Wood—Very large; rich; light yellow with red cheek; juicy and sweet. One of the best. Last of June.

Lambert—A very promising cherry of largest size. Flesh red, firm and of unsurpassed quality. Stands in the lead as a shipping variety. June.

Napoleon—Very large; pale yellow with bright red cheek; very firm; juicy and sweet; vigorous grower and very productive; one of the best. First of July.

Rockport—Large; pale amber with clear red; a very excellent and handsome cherry; a good bearer. Middle of June.

Schmidt's Bigarreau—Remarkably hardy and productive. Fruit grows in clusters, and is of the largest size; skin deep black; flesh dark, tender, juicy, with a fine, rich flavor; stone small. July.

Tartarian (Black Tartarian)—Very large; bright purplish black; juicy; very rich, excellent flavor. Tree a vigorous grower and productive. Last of June or early July.

Windsor—New seedling originated at Windsor, Canada. Fruit large, liver-colored, quite distinct; flesh remarkably firm and of fine quality. Tree hardy and very prolific. The most valuable late variety for market or family use. July.

SOUR VARIETIES

Brusseler Braune (New)—Originated and imported from East Poland, Europe, about ten years ago and put on trial at various experiment stations, where its superiority was discovered. Our attention was called to this wonderful cherry by Prof. L. R. Taft, of Michigan Agricultural College, who urged us to introduce it. Tree a stronger grower than Richmond, perfectly hardy. Fruit of largest size, a rich brown color and of highest quality. Ripens four weeks later than Richmond, after all other varieties of cherries are gone.

Dyehouse—A very early and sure bearer; ripens a week before Richmond, and quite as productive and hardy. Color red. June.

Eugenie (Empress Eugenie)—Fruit large; dark red; very rich, tender and subacid. Tree heads very low. Ripe about July 1st.

Large Montmorency—A large, red, acid cherry; larger than Richmond, and fully ten days later; best market variety among sour cherries. End of June.

Late Duke—Large, light red; late and fine. Last of July.

May Duke—Large, red; juicy and rich; an old, excellent variety; vigorous and productive; Middle of June.

Morello (Eng. Morello)—Medium to large; blackish red; rich, acid, juicy and good; very productive. Tree a moderate grower. August.

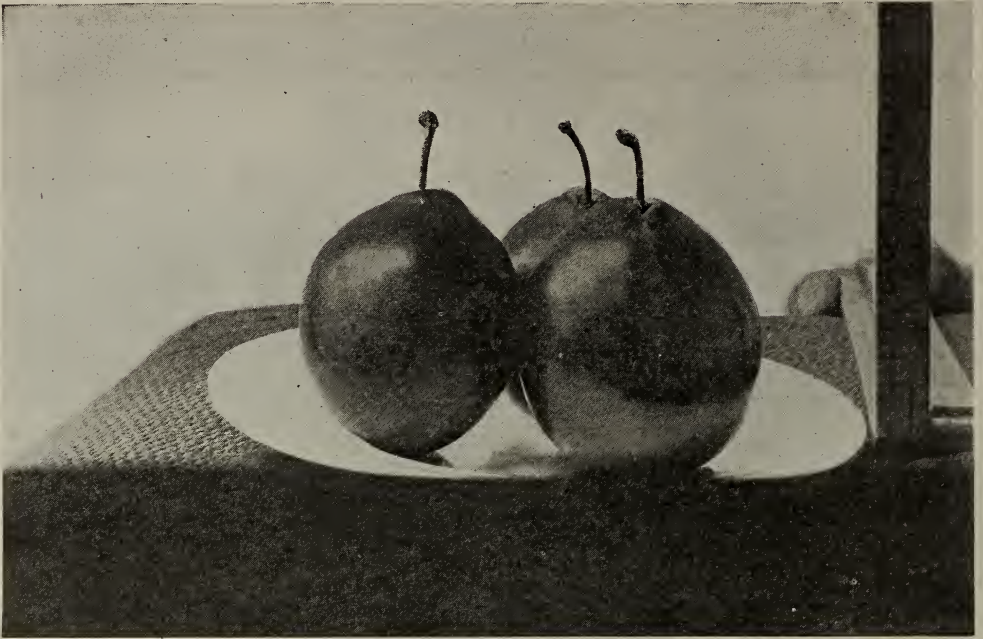
Olivet—Large; shining, deep red; tender rich; and vinous, with a very sweet, subacid flavor. June.

Ostheim—A hardy cherry from Russia. Fruit large, roundish ovate; skin red, dark at maturity; stalk long; flesh liver-colored, tender, juicy, almost sweet. Its ripening season extends over about two weeks. Trees usually begin to bear the second year. Last of June.

Philippe—Large size; flesh red, tender, juicy with mild, subacid flavor; very vigorous and productive; of great value. A native of France. Middle of July.

Richmond—Medium size; dark red, melting, juicy, sprightly acid flavor. This is one of the most valuable and popular of the acid cherries, and is unsurpassed for cooking purposes. Tree a good grower, with roundish, spreading head, and is extremely productive. The most hardy of all varieties, uninjured by the coldest winters. Ripens through June.

Wragg—Very large, with a sweet subacid flavor; moderate grower. Last of July.



MAMMOTH AUSTRIAN PRUNE.

Largest and finest flavored plum ever introduced. The original tree in America is located at Ann Arbor, Michigan, on the farm of Mr. George Aprill, who imported the scions from Austria. Our buds were taken from this very tree. See complete description in list of varieties below.

PLUMS

AUSTRIAN PRUNE—Tree very vigorous, upright, perfectly hardy, and is a young bearer. Fruit is the handsomest and largest plum in cultivation. Color, attractive dark reddish purple. Flesh golden yellow, sweet and mild; excellent quality. Good shipper and keeper. Ripens about middle of Sept. Takes highest honors and premiums everywhere.

Bradshaw—Fruit very large; dark violet red; flesh yellowish green, juicy and pleasant. Tree vigorous, erect and productive. Middle of August.

Diamond—A superb and showy Plum of enormous size; dark purple, with thick bloom. Vigorous, hardy, productive. Sept.

German Prune—A large, long, oval variety, much esteemed for drying; color dark purple; of a very agreeable and rich flavor. Tree very productive and hardy. Sept.

Golden Drop (Coe's)—Large and handsome; light yellow; firm, rich and sweet. Last of Sept.

Grand Duke—Color of Bradshaw; fruit very large, of fine quality; very productive. Tree rather poor grower.

Gueii—Extensively grown for market, having proved to be one of the most profitable for that purpose. Tree a hardy, very strong, vigorous and upright grower, spreading with age and bearing; an early and very abundant bearer. Fruit large, roundish oval; skin dark purple, covered with a thick blue bloom; flesh pale yellow, a little coarse, firm, juicy, sweet, sprightly, subacid; freestone. Last of Aug. and first of Sept.

Italian Prune (Fellenberg)—A fine, late plum; oval, purple; flesh juicy and delicious; parts from the stone; fine for drying. Sept.

Lombard—Medium; round, oval; violet red; juicy, pleasant and good; adheres to the stone. Tree vigorous and productive. Last of Aug. A valuable market variety; one of the most hardy and popular.

It is a pleasure to handle such trees.—J. W. Armie, Wabash, Ind.

Monarch—One of the most valuable of the late introductions from England. Tree robust, with dense foliage; an abundant bearer. Fruit very large, roundish oval; dark purple-blue; perfect freestone. Oct.

Prince (Prince's Yellow Gage)—Rather large; golden yellow; flesh rich, sugary and melting; very hardy and productive; a favorite sort. August.

Reine Claude—Large; green yellow,

spotted with red; firm, sugary and of fine quality; very productive. Sept.

Shropshire (Damson Shropshire)—Fruit small, oval; skin purple, covered with blue bloom; flesh melting and juicy, rather tart; separates partly from the stone. Sept.

Yellow Egg—Fruit of largest size; skin yellow, with numerous white dots; flesh yellow, rather coarse; subacid, fine for cooking. Tree vigorous and productive. Last of August.

JAPANESE PLUMS

Abundance—One of the best known and most popular of the Japan sorts. From our experience, we can recommend this variety for more extensive planting. Medium to large, oblong; amber, nearly covered with bright red and overspread with a thick bloom; flesh orange yellow, juicy, melting and of delicious sweetness; stone small and flesh readily parts from it. Tree a strong grower and an early and profuse bearer. Valuable for canning and market. Aug.

Burbank—The Burbank Plum stands at the head of the celebrated Japanese varieties. It is proving remarkably successful the country over. No other plum ever became so popular in so short a time. This is because it is practically curculio-proof, and is very free from black knot. It has been fruited about twelve years in this country and is perfectly hardy. It seems to succeed in any soil, sand, clay or loam. It can be picked just before ripe and will ripen and color up perfectly, and will not lose its flavor. Will keep fully three weeks in perfect condition after ripening. We have kept them in perfect condition in a cupboard in our office for thirty days during very warm weather. Abundant

yearly bearer; fruit large, roundish, dark red or purplish, with thin lilac bloom; flesh amber yellow, melting, juicy, with rich sugary flavor; stone small; bears second year after planting; needs close pruning. First of Sept.

Red June—The best Japan ripening before Abundance. Medium to large; deep vermilion red with handsome bloom; flesh light lemon yellow firm, moderately juicy; pleasant quality. Tree upright spreading, vigorous and hardy; productive; ripens between Willard and Abundance. Last of July or early August.

Wickson—Originated by Luther Burbank, of California, who says: "This variety stands pre-eminent among the many thousand Japanese varieties I have fruited." Tree hardy and an upright, strong grower, with narrow leaves; very productive. Fruit largest of the Japans, handsome deep maroon red; firm; a long keeper and a fine shipper; flesh dull yellow, meaty, of good quality; destined to become one of the most valuable plums for market; keeps fully three weeks after picking. Fruit ripens late after Burbank. Tree somewhat tender in cold northern countries. Middle of Sept.

PEDIGREE TREES.

Mr. Forrest Crissey, a practical horticulturist, in a recent number of the "Saturday Evening Post," comments upon Pedigree Trees thus:

"There are so many advantages in favor of the Pedigree Tree—so many chances that it will pay for the extra cost many times over—that the shrewd orchardist will figure that he cannot afford not to insure his enterprise with these advantages."

Greening's Pedigree Trees are the kinds Mr. Crissey recommends.

See Page 11.

MULBERRIES

Downing's Everbearing — Very large, black, handsome, sweet, rich and excellent.

New American—Equal to Downing's in all respects and a much hardier tree. Vigorous grower; very productive; the best variety for fruit; ripe from

middle June to middle Sept.

Russian—Very hardy; vigorous grower; valuable for feeding silkworms, etc. Fruit of small size, varies in color from white to black. Largely planted for hedges, windbrakes, etc., in western states.

APRICOTS

Alexander—An immense bearer. Fruit yellow, flecked with red; very beautiful. July.

Alexis—An abundant bearer; yellow, with red cheek; slightly acid. July.

Budd—Tree a strong grower and profuse bearer. Fruit white with red

cheek; sweet; the best late variety. August.

Catherine—Vigorous and productive. Medium sized; yellow, mild subacid. July.

Nicholas—Tree prolific. Fruit medium to large; white, sweet and melting. A handsome variety.

QUINCES

The Quince is of late attracting a good deal of attention as a market fruit. The tree is hardy and compact in growth, requiring but little space, productive, gives regular crops, and comes early into bearing. The fruit is much sought after for canning. When put up in the proportion of about one quart of quinces to four quarts of apples or pears, it imparts a delicious flavor.

Bourgeat (New)—The strongest and most distinct grower of all quinces. with large foliage and very handsome fruit. Keeps longer than most other sorts. Very promising.

Champion—A prolific and constant bearer, fruit averaging larger than the Orange, more oval in shape, quality equally fine; bears extremely young, producing fine fruit on two-year trees in nursery row; can be kept in good condition until January. Tree a vigorous grower and prolific bearer; one of the best for sections not subject to early frosts.

Missouri (Missouri Mammoth)—The largest quince in cultivation. Has stood severe cold; a thrifty grower and prolific bearer. One of the very best.

Orange—Large, roundish; bright golden yellow; cooks tender, and is of very excellent flavor. Valuable for preserves or flavoring; very productive; the most popular and extensively cultivated of the old varieties. October.

Rea (Rea's Mammoth)—A seedling of the Orange Quince; one-third larger; of the same form and color; fair, handsome, equally as good and said to be as productive.

Your Goods Are of Superior Quality.

Your goods came in excellent condition and are of superior quality, far ahead of any goods delivered in this section. The splendid root system and strong, healthy bodies, carefully trained and handled, are a most satisfactory feature of your trees.

C. F. BALLENTINE, Springfield, O.

Beats the Other Nurseries a Mile.

I found all your trees in first-class shape. They were much better than the stock delivered by three other nurseries who made deliveries at this place. If anybody wants to enquire as to whether your stock is all right send them to me. I have sold your trees for many years and have many fine plantings in my territory to show for the quality of your stock.

J. W. INGLE, SR., Agent.

Your firm was recommended to me by the U. S. Gov.—Mrs. J. D. Leary, Cincinnati, O.

GRAPES

BLACK GRAPES

Campbell—Its strong, hardy, vigorous growth; thick, heavy, perfectly healthy foliage; very early ripening and abundant bearing of large and handsome clusters of excellent quality, combined with the most remarkable keeping and shipping qualities, form a combination equaled by no other grape. Its period of full maturity is from the middle to the last of August, according to the season, ripening with Moore's, but unlike that variety, it has kept sound and perfect, both on and off the vine, for weeks after Moore's was decayed and gone. It is, both as to cluster and berry, of large size, of a glossy black color, covered with a beautiful blue bloom; pulp sweet and juicy; free from foxiness; seeds small, few in number and part readily from the pulp.

Champion—A large grape of medium quality; a strong grower and very hardy; the earliest of all. Succeeds in all sections.

Concord—the best known and most popular of all grapes. Best for table, wine and market; succeeds over a great extent of country. Ripens in Sept.

Early Ohio—A new black grape; its points of merit are extreme earliness, hardness, productiveness and being of better quality than most early sorts. Berries large, firm, of spicy, pleasant flavor; hangs to the stem with a persistency that makes its shipping qualities of the highest order. Ripens about three weeks before the Concord.

Eaton—Black; bunch and berry of the largest size; not quite so early or sweet as its parent, the Concord, but less foxy; pleasant, juicy, with tender pulp; vine very vigorous, healthy and productive.

Hartford—Bunches of medium size; berries large, globular; color almost black, covered with a beautiful bloom, of fair quality; ripens a week before Concord.

Moore's Early—Bunch medium; berry round and as large as the Wilder or Rodger's No. 4; color black, with a

heavy blue bloom; quality very fine; vine exceedingly hardy, has never been covered in the winter; it has been entirely exempt from mildew or disease; in vigor of growth it is medium. Its earliness makes it desirable for a first crop, maturing, as it does, ten days before the Hartford and twenty before the Concord.

Wilder (Rodgers' No. 4)—Large and black; bunches generally shouldered; berry round and large; flesh buttery, with a somewhat fibrous center; sweet; rather sprightly.

Worden—A seedling from the Concord, which it greatly resembles in color and appearance. It is, however, several days earlier; much more delicious and melting and has a flavor that is equaled by no other grape grown. Berries and clusters are very large and compact; vine is fully as hardy as the Concord, and more productive. It is a sure bearer. A valuable market sort. (See colored illustration.)

RED GRAPES

Agawam (Rogers No. 15)—Bunches large, generally loose; berries large, round, color dark red or maroon; flesh quite tender, juicy, vinous, with a peculiar flavor much admired by some; vine vigorous and productive.

Brighton—A cross between Concord and Diana Hamburg. Resembles Catawba in color, size and form of bunch and berry. Flesh rich, sweet and of the best quality. Ripens earlier than the Delaware. Vine vigorous and hardy. This variety has now been thoroughly tested, and it may now be truly said to be without an equal among early grapes. Succeeds best when planted near other varieties of grapes.

Catawba—Well known as the great wine grape of Ohio, Kentucky, etc. Bunches large and loose; berries large, of a coppery red color, becoming purplish when well ripened; two weeks later than Isabella; requires the most favorable soils and situations, good culture and warm seasons to mature.

Delaware—Still holds its own as one of the finest grapes. Bunches small, compact, shouldered; berries rather small; round; skin thin, light red; flesh very juicy, without any hard pulp, with an exceedingly sweet, spicy and delicious flavor. Vine moderately vigorous; hardy and productive. Ripens right after Brighton.

Lindley (Rodgers' No. 9)—Bunch long and compact; berries large; flesh sweet; ripens soon after Delaware. One of the best of Rodgers. A good keeper.

Salem—Bunch large; berry large, round; flesh tender, juicy, with a rich aromatic flavor; slight pulp; good keeper.

Vergennes — Clusters large; berries large; color light amber; flavor rich and delicious; ripening here fully as early as Hartford. Its keeping qualities are superior.

Woodruff—A handsome, profitable market sort; vine vigorous, productive. Bunch and berry large, attractive; ripens early; fair quality, long keeper, good shipper.

WHITE GRAPES

Diamond — A vigorous grower: with dark, healthy foliage, entirely free from mildew. A prolific bearer; bunches large, handsome and compact, slightly shouldered; color, delicate, greenish-white, with rich yellow tinge when fully ripe. Skin smooth, free from specks; pulp tender, juicy and nearly transparent, with very few seeds. Berry about the size of Con-

cord; quality best; rich, sprightly and sweet. Ripens a few days before Concord.

Elvira—Very vigorous, strong, healthy grower; bunch and berries medium size, very compact and productive, often growing four and five clusters on a single cane. Ripens about with Catawba; very hardy. A wine grape.

Empire—Healthy, strong grower, and very hardy; clusters large and shouldered; berry medium; nearly round, white, with a slight tinge of yellow, with a heavy white bloom; quality medium.

Green Mountain—Color greenish white, skin very thin; pulp exceedingly tender and sweet; contains but one or two seeds, which separate from the pulp with the slightest pressure; quality superb. Ripens with Moore.

Martha—Native of Missouri. Bunches medium and shouldered; berry large, roundish; flesh similar to Concord; a little foxy, but good; ripens earlier than Concord; vine vigorous and hardy.

Niagara—This white grape is justly regarded as one of the very best known; very fine quality for a table grape; very prolific, hardy and of fine flavor. Fruit keeps well if carefully handled; one of our favorite sorts.

Pocklington—Vine very vigorous, hardy and productive; bunch and berry of good size; color a light lemon yellow; flesh moderately tender, sweet, with a peculiar aromatic flavor. Ripens just ahead of Concord.

Sold Greening Trees Sixteen Years.

Your trees and shrubs, roses and vines that you shipped to my three delivery points were all fine. I have not had a kick this spring. I have delivered your stock for sixteen years and you have always treated me and my customers well.

D. W. C. RAU, Agent.

All Packed Nicely.

Your shipment of trees received and I want to say that they are the finest lot I have ever received. They were well packed and customers were all well satisfied.

B. C. CURTIS, Agent.

Not a Kick.

Your stock was first class. Never had a kick from a customer. Don't think your shipping policy can be beat.

LEVI KOYL, Agent.

The stock shipped to me was unusually good.—L. L. Halstead, New Boston, Mich.



BRIGHTON

NIAGARA

WORDEN

F.P.

BUSH FRUIT DEPARTMENT

RASPBERRIES

RED AND YELLOW VARIETIES

Columbian—An improvement on Shaffer, which it resembles, but the berry is firmer, adheres to the bush much longer and retains its shape better, both on the market and for canning; color dull purplish red. Bush a strong grower, attaining a very large size. One of the hardiest and wonderfully prolific. Unexcelled for productiveness, stands at head for canning, making jam, jell, etc. Should be planted two feet farther apart than any other variety. (See colored illustration.)

Cuthbert—A remarkably strong, hardy variety; stands the northern winters and southern summers better than any other variety. Berries very large, conical, rich crimson, very handsome, and so firm they can be shipped hundreds of miles by rail in good condition; flavor is sweet, rich and luscious. The leading market variety for main crop. (See colored illustration.)

Golden Queen—This variety is a seedling of the Cuthbert, but the color of the fruit is a rich golden yellow. The flavor is of the highest quality. Its size equal to the Cuthbert; immensely productive; a very strong grower; poor shipper. (See colored illustration.)

Loudon—A seedling of Turner crossed with Cuthbert. A valuable new sort; color red; hardy and productive; begins to ripen with Cuthbert, but continues during a longer season.

Marlboro—Large size; light crimson color; good quality and firm. Vigorous and productive. One of the best large early berries for the North.

Shaffer—Fruit large; purple; soft with sprightly subacid and rich flavor; hardy; vigorous and productive. Much esteemed. Season late. One of the best for canning.

BLACK CAPS

Conrath—Six days earlier than Gregg. A deep rooter and most vigorous grower. Very hardy, highly productive; color black; sweet and delicious. Being so early and large, it brings the highest price in the market. All experiment stations give it the highest praise. During 1886 this variety produced fruit at the rate of \$420 per acre. The drought does not affect this sort on account of its deep rooting and early fruiting. (See colored illustration and read testimonials.)

Cumberland—A mammoth mid-season blackcap that holds its stout, stocky canes with handsome fruit. Its great glossy berries outsell all others of their season, are firm enough to ship well, and of good quality. In hardiness and productiveness, among the best. (See colored illustration.)

Gregg—Of good size; fine quality; very productive; an old reliable market sort; fairly hardy. Well known everywhere. No one can afford to be without it.

Haymaker—We recommend this new Raspberry as the most productive in cultivation. It is an Ohio seedling of the tall, strong-growing Columbian type, with berries similar in color, size and texture, but a little more acid, and produced in even heavier crops. The one great Raspberry for market growers.

Kansas—Plant is a strong grower; fruit jet black, as large or larger than Gregg, a splendid yielder and hardy. One of the very best. Ripens before Gregg.

McCormick (Mammoth Cluster)—Canes of strong growth and very prolific. Berries large and of fine quality.

Souhegan—Ripens its entire crop within a very short period. Canes vigorous, strong and hardy; wonderfully productive. Fruit of medium size, jet black, with but little bloom; firm and of sweet, pleasant flavor.

CONRATH

COLUMBIAN



GOLDEN
QUEEN

CUTHBERT

BLACKBERRIES

Ancient Briton—Very vigorous, healthy and hardy producing large fruit; stems loaded with good-sized berries of fine quality, which ship well and bring the highest price in market.

Early Harvest — One of the earliest blackberries in cultivation. Habit of growth, dwarf-like; fruit medium size and good quality. Adapted only for southern climates unless protected in winter.

El Dorado—H. E. VanDeman recommends this variety thus: "This berry was noted last year, and is of much promise; so much so that a special colored plate has been made. It is an oblong, irregular berry of large size, fruiting in pendulous, slender, hairy spikes with few thorns. Color, black; flesh deep crimson, with tender core, flavor sweet, rich quality and very good."

Erie—Very large, jet black and early. Perfectly hardy, a strong grower and a great bearer, producing large, sweet berries; earlier in ripening than any other sort.

Rathbun—Very large, jet black, without hard core, small seeds, extra fine quality; very rich aroma. Plant suckers very little. Very hardy. Ripens early.

Snyder—Extremely hardy; enormously productive; medium size; no hard, sour core; half as many thorns as Lawton or Kittatinny, and they are nearly straight and short. One of the hardiest sorts and most profitable for market.

Taylor—A good succession for Snyder in cold climates. Ripens its large luscious berries some weeks later. Vigorous, hardy, fruitful.

Wilson—Large, sweet, fair flavored; very productive; ripens up the fruit together; requires protection in some localities.

DEWBERRY

Lucretia—One of the long-growing, trailing blackberries; in earliness, size and quality it equals any of the tall-growing sorts. Valuable for home use. The plant is perfectly hardy, healthy and remarkably productive, with very large, showy flowers. The fruit, which ripens early, is often one and one-half inches long by one inch in diameter, soft, sweet and luscious throughout, with no hard core. It has proven highly satisfactory wherever tried, and many say it is the best of all the blackberry varieties for family use.

Better Than He Expected.

When I receive fair treatment from the hands of any one it always affords me great pleasure to tell it to others. I wish to say that I purchased 350 fruit trees from The Greening Nursery Company last spring through their agent, George A. Flory. They promised me good stock, which I expected, but they have sent me better stock than I really expected. I think they sent me the finest yearling trees I ever saw, nothing but No. 1, clean, straight and healthy trees. The result is, I think, only one of the entire lot will fail to grow. I think I always owe a good word for the Greening Nursery Company.

S. C. SCHANTZ, Archbold, Ohio.

Bound to Bring Results.

I wish to congratulate you upon your efforts to improve the old strains of fruits in this state with Pedigree Trees, and I believe that the lines you have started out on are bound to bring results.

JOHN I. GIBSON,

Secretary Western Michigan Development Bureau, Traverse City, Mich.

Your Trees Advertise Themselves.

My trees arrived in most excellent condition, and such beautiful stock; it seems that I have never seen its equal. I appreciate your efforts and wish to thank you for selecting such fine stock for myself and my neighbor. Certainly such splendid trees and fine roots will advertise themselves. The only way I can reciprocate is to do some such favors as you ask of me at any time.

BENTON GEBHARDT, Hart, Mich.

The trees I received from you were extraordinarily fine.—M. A. Eicher, Chatfield, O.

CURRANTS

Champion (Black Champion)—A variety from England now well tested in this country and pronounced everywhere to be the best black currant yet introduced. Very productive, large bunch and berry, excellent quality, strong and vigorous grower.

Cherry—Very large; deep red; rather acid; bunches short. Plants erect, stout, vigorous and productive.

Crandall—A native black seedling of the western wild currant; distinct from the European black varieties and without their strong odor: wonderfully productive, a strong, vigorous grower, usually producing a crop next year after planting; easily picked; can be shipped farther and kept longer than any other small fruit; free from all attacks of insect enemies.

Fay's Prolific—Extra large stems and berries, uniform in size, easily picked, of medium growth and productive.

Lee (Black)—A new English variety. The fruit is large and of superior quality; the bush is a vigorous grower and enormously productive, rendering it very profitable.

Naples—Very large; black, rich, tender, and excellent for jellies and wine; very productive.

North Star—A new variety originated in Minnesota; clusters very long; color bright red; flavor excellent.

Perfection—A cross between Fay's and the White Grape retaining the valuable characteristics of both. Beautiful,

bright red as large or larger than Fay's holding its size to the end of the bunch; easy to pick, a superior bearer, less acid and of better quality than any other large currant in cultivation.

Pomona—While not the largest, is of good size. It is a beautiful, clear, bright, almost transparent red; has but few and small seeds, easily picked, hangs a long time after ripe, and is one of the best to hold up in shipping or on the market. A vigorous grower, healthy and hardy.

Versaillaise—Large; red; bunch long; of great beauty and excellent quality. One of the finest and best of the large sorts.

Victoria—A splendid variety, ripening two or three weeks later than Cherry, and continuing in fine condition for a long period. Bunches extremely long; berries of medium size, brilliant red and of the highest quality. The greatest bearer of all currants. Similar to if not identical with Raby Castle.

White Grape—Very large; yellowish white, sweet or very mild acid; excellent quality and valuable for the table. The finest of the white sorts. Very productive.

Wilder—A new red currant, with large fine-flavored fruit of a bright, attractive red color, even when overripe. The leading garden and market variety; a strong, vigorous erect grower and a great yielder. Fruit as large as the largest; a good shipper.

\$25.00 Per Bushel for Winter Banana Apples Presented to President Taft.

From the Denver (Col.) Times.

One of the interesting events yesterday was the purchase of a box of fancy Winter Banana Apples by Eric Swanson, general agent of the Antlers Orchard Development Company at Colorado Springs, for President Taft. The box contained about sixty apples, displaying a blue ribbon. They were sold for \$52.20, or almost a dollar apiece. They were grown by E. A. Flemming and W. S. Park in the Antlers-Silt district of Garfield county.

These trees were bought from Greening's Big Nurseries, Monroe, Mich.

Fine Lot of Peach Trees.

The trees I got of you did fine. Out of 1,300 I only lost two trees, and they have made a fine growth.

WILLIAM SHANNON, Fennville, Mich.

Greening's Trees Grow.

Greening's Big Nurseries, Monroe, Mich.

Gentlemen: I received 1,200 trees from you last year and only five out of the twelve hundred died. I am well pleased with them.

C. G. NASH, New Era, Mich.

All my trees are growing fine.—C. F. Biechler, Mt. Eaton, O.

GOOSEBERRIES

Chautauqua—Size very large; fruit a beautiful light yellow color; quality good. An American seedling.

Columbus—An American seedling of the English type; large size; color greenish yellow, smooth, and of fine quality; a strong grower, with large glossy foliage. New.

Downing—Fruit is much larger than the Houghton; roundish; light green, with distinct veins; skin smooth; flesh soft, juicy and very fine flavored. Vigorous and productive. The most valuable American sort.

Houghton—A vigorous American sort; very productive. Fruit medium, roundish, smooth, of a pale red color; tender, sweet and of a delicious flavor; very profitable for canning and catsup.

Industry—An English variety; very large, red; of fine quality and excellent flavor. Very desirable if kept free from mildew, as it is the largest grown.

Red Jacket—A new red berry, larger than Downing; smooth, very prolific and hardy, quality and foliage the best. For years it has been tested by the side of the best American and English sorts, and is the only one absolutely free from mildew either in leaf or fruit. Promises to be the variety we have so long been waiting for, equal to the best English kinds, and capable of producing large crops under ordinary cultivation, wherever gooseberries can be grown.

Smith—From Vermont. Large; oval; light green, with bloom; flesh moderately firm, sweet and good. Vigorous grower.

ASPARAGUS

See that the ground is well drained, naturally or otherwise; work it up fine and deep and make it very rich with well-rotted barnyard manure. Place the plants eight inches apart in rows four feet apart. Spread out the roots in a trench made deep enough to permit their crowns to be covered with three or four inches of mellow earth. Give the bed liberal dressings of manure at intervals, and three pounds of salt per square yard early every spring. Do not cut for use until second season.

Conover's Colossal—This variety is much superior in size and quality to any of the old common sorts, being remarkably tender and fine flavored.

Palmetto—Until recently we believed that the Conover's Colossal was the best sort known, but we are now forced to concede that the Palmetto is earlier and a better yielder, and more even and regular in its growth, and that it will eventually supersede the old favorite. It has been tested both North and South, and has proven entirely successful in every instance.

RHUBARB OR PIE PLANT

Make the ground rich and deep, as recommended for Asparagus. Plant four feet apart each way.

Early Scarlet—Smaller than Myatt's, but extremely early and of very highest quality. The best extra early sort for home or market.

Myatt's Linnaeus—Those who have never grown this variety, which is of superior quality, will hardly recognize the old "Pie Plant." It is an early, tender variety without being in the least tough or stringy, with a mild, subacid flavor.

Your trees are a good advertisement for you.—E. P. Dann, Concord, O.

STRAWBERRIES

Strawberries will succeed in any soil that is adapted to ordinary farm or garden crops. Soil should be thoroughly prepared to a good depth, well drained and enriched. To produce fine, large fruit, keep in hills, pinching runners off as soon as they appear. Ground should always be kept clean and well cultivated. In winter a covering of leaves, straw or some kind of litter will protect the plants. Mulching will keep the fruit clean and soil in a good condition through the fruiting season. The blossoms of those marked "(Imp.)" are destitute of stamens and are termed "pistillate," and unless a row of a perfect flowering variety is planted at intervals not exceeding about a rod, they will produce imperfect fruit and but little of it; but when properly fertilized, as a rule, they are more prolific than those with perfect flowers. Those marked "(Per.)" are the perfect flowering sorts.

The following are the varieties most desirable for family use and market. Each and every variety enumerated has its special merits:

- Brandywine** (Per.)—Season medium to late. One of the grandest berries ever introduced. It is one of our favorites. It is one of the heaviest fruiters and a splendid shipper. Berries very large, deep red to center. Stems short and stout and holds its great load of berries well up from the ground. One of the strongest pollenizers for pistillates of the season.
- Bubach** (Imp.)—Combines many excellent qualities, such as great and uniform size, fine form and color, good quality of fruit, unsurpassed productiveness and great vigor of plant. It ripens almost as early as the Crescent and continues about as long in bearing, and fully as prolific; leaves large, dark green, and endure the hottest sun perfectly. The leading market variety. Succeeds best on heavy soil.
- Clyde** (Per.)—This is perhaps the most popular new strawberry ever introduced, seeming to do equally well in all parts of the country. The Clyde ripens early, is as large as Bubach and much firmer. The plant is very vigorous and healthy, foliage light green in color.
- Crescent** (Imp.)—Large, averaging larger than Wilson's Albany; conical; color a handsome bright scarlet; quality very good. In productiveness unequaled, having produced over 400 bushels per acre. Plants very strong and vigorous; a most valuable market sort.
- Cumberland** (Per.)—Very large, round; of good quality; pale scarlet; soft. Excellent for home use. Early to late.
- Dunlap** (Senator Dunlap) (Per.)—Medium to large, flattened slightly. Dark crimson. Flesh red, firm and fine in texture. Quality excellent. Plant hardy and strong grower.
- Excelsior** (Per.)—Another early sort of great promise from Arkansas. It is an excellent grower of good, clean foliage, making large, stocky plants, which is one of the main business qualifications of the strawberry. Earlier by several days than Michel's Early. It does well on light sand or heavy land. The berry is dark red, nearly as dark as Warfield; of good size; one of the best shippers; will stand as much handling as the old Wilson without bruising. It is a good plant maker, medium in size and perfectly healthy; blossom perfect.
- Gandy** (Per.)—Unsurpassed in growth and healthfulness of foliage. Berries bright crimson color, uniform size and shape, large, ripen late and are very firm. Produces a crop of berries the first season plants are set. Latest of all. A profitable market sort.
- Greenville** (Imp.)—Resembles Bubach, but firmer and a better shipper; uniform in size, regular outline, excellent quality. Plant a strong grower, free from rust, and one of the most productive.
- Haverland** (Imp.)—The most productive large berry under cultivation. Season medium early until late. Plants are very large, healthy, vigorous, and ripen their fruit evenly and early, holding on through the season. Berries are fine, uniform in shape, very large; excellent flavor and bright red.

✓ **Jessie** (Per.)—On moist soil is a robust healthy plant; long, stout fruit stalk, holds the fruit well up from the ground; berries of the largest size, medium to dark red color all the way through; firm and solid, and of the most excellent quality; very few small berries and none of the largest ones of irregular shape. Season medium.

✓ **Lovett** (Per.)—An immense bearer; berry large and firm; a good runner, splendid fertilizer for Crescent, Warfield and Bubach. Season medium late.

✓ **Michel** (Per.)—Long been known as the extra early berry. It should always be grown in hedgerow, when it is very productive. It makes runners very freely, and many have propagated in beds so thickly that light was excluded and thus it lost its tendency to form fruit buds. Berries medium size, cone shape and a good shipper.

✓ **Nick Ohmer** (Per.)—The fruit is of the very largest size. It is dark, glossy red, firm and excellent flavor. Medium to late.

✓ **Parker Earl** (Per.)—Plant robust and healthy; withstands changes of climate; berry regular, conical, medi-

um size, glossy crimson; flesh firm; a good shipper; season medium. Succeeds well on rich, loamy soil. We can highly recommend it for general culture.

✓ **Sample** (Imp.)—Large size; midseason, fine quality; conical shape and regular in form. One of the best for market.

✓ **Sharpless** (Per.)—Very large; average specimens, under good cultivation, measuring one and one-half inches in diameter; generally oblong, narrowing to the apex; irregular, often flattened; clear, light red, with a smooth, shining surface; firm sweet, with a delicious aroma; vigorous, hardy, and very productive when raised in hills with runners cut off.

✓ **Warfield** (Imp.)—The greatest market and shipping berry. A deep roofer, and can mature an immense crop; berries above medium in size, dark red to the center, and one of the best canning and shipping berries grown.

✓ **Wilson** (Per.)—Medium to large; dark red; very hardy, vigorous and productive. Succeeds best on heavy soil. The most widely known and universally successful strawberry. Season early to late.

✓ **Everbearing Strawberries**—These are no longer an experiment when properly handled. To do best, the strawberry needs plenty of water and to obtain the largest size and finest quality of fruit in the fall keep blossoms picked off until about the first of August.

✓ We have tried all the leading sorts and after thorough trial we have discarded all but two varieties. These are both good but in our opinion, the Progressive is superior.

✓ **Progressive**—Good size, smooth and of good red color. The plants are vigorous and healthy. Fruits from the middle of August until the middle of November, according to season.

✓ **Suburb**—Fruit large, round, rich dark colored, glossy, attractive. Plants hardy and healthy. Fruits from August 15th., to November 15th., according to season.

NUT TREES

✓ **Chestnut, American Sweet**—A valuable native tree, both useful and ornamental; timber is very durable and possesses a fine grain for oil finish. Nuts sweet, of delicate flavor and are a valuable article of commerce. Best adapted for sandy or gravelly soil.

✓ **Chestnut, Spanish**—A handsome, round-headed tree, producing abundantly very large nuts that find a ready market at good prices. Not as sweet as the American and tree not quite as hardy.

✓ **Pecan**—This is a native nut belonging to the (Carya) Hickory-nut family. The tree is of tall growth and bears abundantly. The shell is very thin, the kernel sweet and delicious.

✓ **Walnut, Black**—This is the most valuable of all of our timber trees for planting; a rapid grower, producing a large nut. The timber enters more largely into the manufacture of furniture and cabinet ware than almost any other, and is prized almost with mahogany.

✓ **Walnut, Japan** (Siebold's Japan)—A most valuable species, which on account of its hardness and vigorous growth is well adapted for our country. It grows with great vigor assuming one of the most well shaped trees for ornament and shade, without any particular pruning or care. One of the most valuable of any nut for our country use.

Your trees are by odds the best I ever delivered here.—O. D. Hill, Unionville, Mich.



PRUNING OF SHRUBS FOR FORMAL EFFECT.

This illustration shows how shrubbery may be pruned into very attractive shapes. Shrub plants such as Spireas, Barberry, Golden Syringa, etc., may be pruned into any desired shape without injury to the plants. Attractive color combinations may also be created by planting shrubs with different colored foliage and flowers in rows one in front of another.

ORNAMENTAL DEPARTMENT

TREES, SHRUBS, VINES AND PLANTS

The following list of ornamentals is very brief and incomplete, although we grow a complete assortment of this kind of stock. This list is merely to give an idea of some of the best evergreens, deciduous trees, shrubs, perennials, etc. To all those who are interested in beautifying their home grounds—and certainly everyone ought to be interested in such a noble and enjoyable work—we shall be glad to mail our special landscape book and catalog free.

EVERGREENS

ARBOR VITAE (Thuya)

American (*Thuya occidentalis*)—Makes a very close hedge for ornamental screens. It is hardy and easily grown after transplanting. Naturally forms an upright, conical tree, but may be trimmed to almost any desired shape.

Compact (*Thuya compacta*)—Very compact pyramidal growth, suitable for tub culture. Light grey-green.

Hovey's Golden (*Thuya occidentalis hoveyii*)—Compact, hardy, dense and conical. Light golden-green.

Pyramidal (*T. occidentalis pyramidalis*)—A tall, slender column of dark green foliage; retains its color over winter. Very hardy; stands severe shearing.

Siberian (*T. occidentalis plicata*)—Its excessive hardiness, regular conical outline and peculiar dark, dense foli-

age makes it very popular for hedges or screens.

CEDAR (*Cedrus, Juniperus*).

Red (*Juniperus virginiana*)—Always popular. Thrives anywhere.

CYPRESS (*Cupressus, Camaecyparis*).

Lawsons (*Camaecyparis lawsoniana*)—Rare and handsome. Branches droop gracefully at the tips. Deep green foliage all winter. Tender in the north.

FIR (*Abies*).

Balsam or American Silver (*Abies balsamea*)—Tree regular and symmetrical cone shape. Dark lustrous green foliage.

Nordman's Silver (*Abies Nordmanniana*)—One of the richest evergreens, dense, dark green. Makes a specimen tree of beautiful proportions.

White (*Abies concolor*)—One of the most beautiful; a rapid, graceful grower, very hardy, stands heat and drought well. Silvery-blue foliage.

JUNIPER (*Juniperus*).

Irish (*J. communis hibernica*)—Erect, dense column of dark green.

LARCH (*Larix*).

European (*Larix europaea*)—A tall and handsome deciduous conifer.

PINE (*Pinus*).

Austrian or Black (*Pinus austriaca*)—Strong, rapid grower, hardy. Robust spreading branches. Dark green.

White (*Pinus strobus*)—Tall, stately and most beautiful of all our native pines. One of the quickest-growing, longest-lived and most generally useful. Silvery blue, and plummy in effect; tree naturally symmetrical. A valu-

able timber tree for even the poorest soils.

SPRUCE (*Picea*).

Colorado Blue (*Picea pungens*)—A magnificent tree with a silvery blue sheen. Hardy in any exposure, of vigorous growth and elegant habit, with broad, plummy branches.

Douglas' (*Picea douglasii*)—Large, spreading pyramid of light green foliage. One of the most vigorous varieties of this species, especially adapted for heavy background when forest effect is desired.

Koster's Blue (*Picea pungens kosteriana*)—The very best of the Blue Spruces. Foliage is silvery blue, densely crowded on the many branches. We have paid particular attention to getting the absolutely true stock of this famous tree and can guarantee its true blue color and character. Being grafted and imported and a rather slow grower, they are more expensive.

Norway (*Picea excelsa*)—Excellent for hedges, shelter belts, screens, backgrounds, etc. It has naturally a fine gothic form, grows fast and seems to suit all soils. Can be pruned to almost any form with great effect.

White (*Picea canadensis* or *alba*)—One of the very best conifers, especially for cold climates. Compact, upright, growing 60 to 70 feet in height, long-lived, retaining its branches to the ground, aromatic, drought-resisting; varies in color from light green to glaucous blue. A good species for growing in tubs.

Lost Four Trees Out of 3,300.

Yours of the 28th received. I got an average of two feet growth on all my apple trees this year; had the summer not been so dry, would have got three feet. As it was, I got better than 3½ feet on at least 20 per cent of the apple trees I got of you this spring. Will lose less than ten, about four I think (out of 3,300). Got 5 ft. 2 in. on one tree—record for the orchard. On the same tree four other limbs better than 4½ ft.

C. E. BRISBIN,

President National Bank, Schuylerville, N. Y.

Fruit the First Year.

Last year my Banner trees that had been set out two years were loaded with blossoms, and as the trees were large and healthy and the land in good condition, I decided to let the blossoms remain on the trees and experiment; and as a result some of the trees had over a bushel of peaches. Besides, they are a late peach and brought the best price of any of my many varieties.

GEO. W. DOOLITTLE, South Haven, Mich.

3,000 Peach Trees Finest Lot I Have Ever Bought.

It gives me great pleasure to state that the 3,000 peach trees I bought of you last spring were the finest and most uniform lot of trees I ever saw. I am so well pleased with your nursery stock that you will find enclosed another order for 1,000 trees, to be shipped next spring.

W. R. BAKER, Detroit, Mich.

Have bought your trees for twenty years; are the best.—J. W. McMullen, Ottawa, Ill.

DECIDUOUS TREES

ALDER (*Alnus*).

Common or European Black (*Alnus glutinosa*)—Foliage roundish, wedge-shaped, wavy. Remarkably quick in growth.

ASH (*Fraxinus*).

American White (*Fraxinus americana*)—Our forest tree, tallest of the species, straight, clean trunk, smooth, gray bark and glossy leaves. Useful for parks and streets.

BEECH (*Fagus*).

American (*Fagus americana*)—Our noble forest tree; fine spreading growth and symmetrically rounded head. Especially attractive in spring with the tender, delicate green of its leaves and pendant flowers. Pure yellow in fall.

BIRCH (*Betula*).

Cut-leaved weeping (*Betula alba lacinate pendula*)—Many attractive characteristics combine to make this a tree of wonderful grace and beauty. Tall and slender; vigorous, with slender branches in drooping festoons of delicately cut leaves. It colors brilliantly in fall and its white trunk and branches make it a beautiful winter picture.

European White (*Betula alba*)—The famous Birch of literature. Quite erect when young, its branches begin to droop gracefully with age. Its bark is snow white, and very effective in landscape views.

Large-leaved—Has large, showy leaves; most valuable of any birches because of its beautiful dark, rich foliage.

CATALPA (*Catalpa*).

Chinese Umbrella (*Catalpa bungei*)—A curious dwarf catalpa. Useful in formal work; a pretty, dome-shaped head 10 to 12 feet high, of great, soft, heavy leaves. The flowers are borne in large clusters a foot long; the leaves are laid with shingle-like precision.

Western (*Catalpa speciosa*)—A fine, hardy sort, well adapted for forest and ornamental planting. The coarse-grained, soft wood is very durable and useful for railroad ties, fence-posts, etc.

CHERRY (*Cerasus*).

Double White-flowering (*Cerasus avium* fl. pl.)

CRAB APPLE (*Malus*).

Bechtel's Double-flowering (*Malus ioensis bechteli*)—Low, bushy tree. Most beautiful of all the flowering crabs. Flowers pink and like roses. Blooms when quite young. Very fragrant.

DOGWOOD (*Cornus*).

Red and White-flowering (*Cornus florida*)—Flowers are 3 inches and more in width, lasting in favorable weather for as many weeks. The bright red bark on its young growth makes it attractive and cheery in winter.

ELM (*Ulmus*).

American (*Ulmus americana*)—Wide arching top, vase-like form and pendulous branchlets. Next to the Oak, this is the grandest and most picturesque of American trees.

Camperdown Weeping (*U. scabra pendula*)—One of the most distinct and picturesque of all our weeping trees. Grows well in almost any climate, is of fine and notable habit, the strong branches often sweeping out horizontally several feet before they curve downward, making a broad, handsome head.

HORSE-CHESTNUT (*Æsculus*).

European White-flowering (*Æsculus hippocastanum*)—A large tree of regular outline with great spikes of red and white flowers in May. Has no superior as a specimen flowering tree.

LINDEN (*Tilia*).

American L. or Basswood (*Tilia americana*)—A tall, stately tree with large, shining, cordate leaves. Has beautiful white wood.

LOCUST.

Honey (*Gleditsia triacanthos*)—Large, vigorous tree with fern-like leaves and thorns. Makes good defensive hedge.

MAGNOLIA.

Soulanges's Magnolia (*M. Soulangiana*)—One of the hardiest and finest of foreign Magnolias. Growth like a large shrub. Its blossoms are from 3 to 5 inches across, cup-shaped, white and rosy violet, opening a little before its massive, glossy leaves.

Maiden Hair Tree (*Ginkgo biloba*)—A distinguished Japanese tree of columnar growth when young, spreading with age into an odd, sketchy outline. Its thick, leathery leaves are clean-cut and shaped like the leaves of the Maidenhair Fern.

MAPLE (*Acer*).

Trees of this group are hardy, vigorous, adaptable to many soils, free from diseases, easily transplanted, regular in outline and beautiful in leaf. Nearly all are brilliantly colored in fall, especially the North American species.

Ash-leaved or Box Elder (*Acer negun-*

do)—This species is easily distinguished by its pinnate leaves and greenish yellow bark. It grows rapidly into a large, spreading tree. Valuable for planting timber claims, shelter-belts, etc., in the west, where it endures both drought and cold.

Norway (*Acer platanoides*)—A handsome tree, of large, fairly rapid growth, forming a dense, rounded head of strong branches and broad, deep green leaves. Sturdy, compact, vigorous, it is one of the very best trees for lawns, parks and gardens.

Silver (*Acer saccharinum* or *dasycarpum*)—Of quicker growth than most trees and valuable where immediate shade is required. Forms a large, spreading head; the fine leaves are silvery beneath.

Schwedler's Purple (*Acer platanoides schwedleri*)—The beautiful purple leaves attract attention at all seasons, but are especially fine in spring, when their gleaming red and purple contrasts brightly with the delicate green of other trees. In midsummer they are purplish green, in autumn golden yellow.

Weir's cut-leaved (*Acer saccharinum lacineatum weiri*)—A very beautiful specimen tree, with delicately cut leaves and distinct, half-drooping habit. The leader grows rapidly upright, the slender lateral branches curve gracefully downward. Of noble proportions when undisturbed, yet patient under considerable pruning.

MOUNTAIN ASH (*Sorbus*).

European (*Sorbus aucuparia*)—Hardy, erect; smooth bark and dense, regular head; berry clusters large and bright.

MULBERRY (*Morus*).

Tea's Weeping (*Morus alba pendula*)—One of the thriftiest, hardiest and most beautiful of weeping trees. Grafted on a straight stem, 6 to 8 ft. high, its branches sweep the ground, forming a beautiful tent of green. It transplants easily. The leaves are lustrous and distinctly lobed.

OAK (*Quercus*).

Palustris Quercus Pin—Grandest of its genus and our American trees. A spreading, towering species, growing 100 feet high when fully developed, with rugged, massive trunk and branches. The deeply lobed leaves change to dark crimson in fall.

PLANE TREE (*Platanus*).

Oriental Plane or European Sycamore (*Platanus orientalis*)—One of the oldest cultivated trees, and among the best for street and avenue planting. It grows rapidly to grand size, is bold,

picturesque, hardy, healthy, free from insects and vigorous in all soils, especially along the water's edge.

POPLAR (*Populus*).

Carolina (*Populus carolinensis*)—Unexcelled for quick growth and effect, its rapid growth giving an air of luxuriance to places where other trees appear starved. Showy and cheery from the constant movement of its glossy, silver-lined leaves, yet always casting a dense, cool shade. If well pruned back during the first few seasons it makes a strong, durable tree.

Red Bud or Judas Tree (*Cercis canadensis*)—The hardiest and perhaps the finest species of a handsome group or early and profuse-flowering trees. Medium height, forming a broad, irregular head of glossy, heart-shaped leaves that color pure yellow in fall. Must be transplanted when small.

Sweet Gum (*Liquidambar styraciflua*)—A tree that is beautiful at all stages, and useful in all sorts of planting.

THORN (*Crataegus*).

Paul's Double-flowering (*Crataegus monogyna pauli*)—Of quick growth, showy, new and perhaps the best sort. The large, perfectly double flowers are a rich, glowing crimson.

Tulip Tree (*Liriodendron tulipifera*)—A tall, magnificent native of rapid, pyramidal growth. Its smooth, erect, gray trunk rises to a great height and is clothed with a splendid vesture of large, glossy leaves. Spangled in spring with large tulip-shaped flowers.

WILLOW (*Salix*).

Bay- or Laurel-leaved (*Salix pentandra*)—A beautiful, distinct, medium-sized tree, with shining, laurel-like leaves and bright green bark. Can be clipped like a bay tree.

Weeping (*Salix babylonica*)—A pretty, drooping tree with slender branchlets. Grows well near water and is very appropriate in water scenery.

Wiscosin Weeping (*Dolorosa*)—Of drooping habit. Hardier than *Babylonica*. Valuable on account of its ability to resist severe cold.

Golden—(*Vitellina Aurantiaca*)—A large and venerable appearing tree, conspicuous at all seasons, but particularly in winter, on account of its yellow bark.

Regal (*Salix Alba Regalis*)—Leaves densely silky on both sides of a silvery white color.

Goat or Pussy (*Salix Caprea*)—Small tree 12 to 15 feet. Upright. Leaves two to five inches long, one to three inches in width.

ORNAMENTAL SHRUBS

Almond, Double-flowering (*Prunus japonica*)—Charming shrub or small tree of spreading, vigorous growth. Pink or white.

Althea or Rose of Sharon (*Hibiscus syriacus*)—Free growing, flowering shrubs. Bloom in August and September. Double and single; red, purple, white, pink, blue, red and striped. Bush or tree form.

BARBERRY (*Berberis*).

Purple-leaved (*Berberis vulgaris atropurpurea*)—A showy and effective shrub with fine purple leaves.

Thunberg's (*Berberis thunbergii*)—Dense growth of graceful, drooping branches. Yellow flowers followed by red berries. Foliage turns to scarlet and gold in autumn. Good for hedges, banking and shady places.

Cranberry Bush (*Viburnum opulus*)—A very decorative native shrub with white flowers in May, followed by scarlet fruits.

DEUTZIA.

Pride of Rochester (*Deutzia crenata*)—A showy, early and large-flowering sort. Large, double white flowers in May.

Hybrida Lemoinei—A hybrid obtained by crossing the well known *Deutzia gracilis* with *Deutzia Parviflora*. flowers greenish white; fruit white. branches which are of upright growth. Habit dwarf and free flowering.

Slender-branched (*Deutzia gracilis*)—A neat, dense, low shrub with drooping branches. Abundance of pure white flowers in May.

DOGWOOD (*Cornus*).

Gray Dogwood (*Paniculata*)—Smooth ash colored bark; pointed leaves. light green above, whitish beneath; flowers greenish white; fruit white.

Siberian Red (*Cornus alba*)—Free growing and hardy. White, clustered flowers. Bark, dark red and showy.

Yellow-Branched Dogwood—(*Flaviramea*)—Bright yellow bark in winter, particularly effective in shrubberies planted with the Red-branched Dogwood.

Variogated (*Cornus siberica variegata*)—Large, spreading shrub with clusters of white flowers in June. Variogated foliage and coral-red bark.

ELDER (*Sambucus*).

Cut-leaved (*Sambucus nigra lacineata*)—Fern-like leaves of half drooping habit.

Golden (*Sambucus nigra aurea*)—Leaves

golden yellow, bloom white in early summer.

GOLDEN BELL (*Forsythia*).

Drooping (*Forsythia suspensa*)—Long, curving branches, used for covering arches and trellises.

Fortune's (*Forsythia fortunei*)—Handsome, erect form; very vigorous grower and prolific bloomer. Flowers golden and continue a long time.

Green (*Forsythia viridissima*)—Flowers deep yellow. Fairly hardy.

Hybrid (*Forsythia intermedia*)—One of the first to bloom in spring. Flowers bright golden and very floriferous.

HONEYSUCKLE (*Lonicera*).

Tartarian (*Lonicera tartarica*)—Pink, red or white flowers in May and June.

Morrowi (*Lonicera Morrowi*)—Japanese Bush Honeysuckle. A spreading variety growing 4 to 6 feet tall. Blooms in May.

HYDRANGEA.

Hills of Snow (*Hydrangea arborescens sterilis*)—Perfectly hardy, prolific bloomer. Flowers large, white and last four or five weeks.

Large-flowered (*Hydrangea paniculata grandiflora*)—Produces massive plumes of immense white flowers during August and September. Bush or tree form.

GLOBE FLOWER, CORCHORUS

(*Kerria*).

Japan (*Kerria japonica*)—Slender, green-branched, dwarf-growing shrub with small, light green leaves and small globular yellow flowers. Good for hedges.

Silver (*Kerria japonica argenteo-variegata*)—One of the finest dwarf-growing shrubs, with small green foliage edged with silvery white; slender in growth, small yellow flowers. Especially adapted for porch bankings or in groups where a showy dwarf shrub is desired.

White Kerria (*Rhodotypus Kerroides*)—Medium growth, single, white flowers in May, followed by shiny black seeds. Thrives in all soils.

JUNEBERRY.

Round Leaved (*Amelanchier rotundifolia*)—Upright, 2 to 8 feet in height. Blooms in May. Desirable for ornament producing a profusion of white flowers in early spring.

Oblong Leaved (*Amelanchier oblongifolia*)—Slender upright shoots growing in rather dense clumps. Blooms in May.

LILAC (Syringa).

Common (*Syringa vulgaris*)—Several colors; blue, purple red or white. Dense panicles of flowers in May. Very fragrant.

Japan Tree (*Syringa japonica*)—Grows to a height of 30 feet; exceedingly handsome when in bloom, and valuable for prolonging the lilac season well into June and July. The leaves are leathery, large and dark. Flower plumes 12 to 15 inches long, white and showy.

Hungarian (*Syringa josikaea*)—Flowers large, lilac-purple; late in May.

Persian (*Syringa persica*)—A rather dwarf habit, slender branches and narrow leaves. Very fragrant. Colors, pale lilac, pink or white. Also a cut-leaved form.

Besides the above we cultivate about twenty other varieties of lilacs of various colors.

FRENCH NAMED VARIETIES.

These are the choicest kinds grown and are selected. The flowers are large and much more beautiful in color and tinge than the common sort.

Alphonse Le Valle. Double, bluish.

Aline Mocqueris. Single, red.

Charles X. Single, dark red.

Congo. Single, red.

Ludwig Spaeth. Single, dark purple.

Marie Legraye. Single, white.

President Grevy. Double, blue.

Rubra de Marley. Single, light red.

Volcan. Single, dark red.

PEARL BUSH.

Grandiflora (From North China)—A fine shrub, producing large white flowers in May. Difficult to propagate and always scarce. One of the finest shrubs of its season.

PRIVET (Ligustrum)

Amor River (*Ligustrum amurense*)—Very hardy, tall growing; dark green leaves almost all winter. White flowers in June, followed by black berries. Best for hedges.

California (*Ligustrum ovalifolium*)—Excellent for hedges, stands severe shearing well. Shining, dark green leaves.

Ibota (*Ligustrum ibota*)—Very hardy, spreading habit, curving branches, greyish green leaves, pure white flowers in June, followed by bluish-black berries. Excellent for hedges.

Regel's (*Ligustrum ibota regelianum*)—Horizontal, sometimes drooping branches. Long, narrow leaves. Graceful and perfectly hardy. Berries remain over winter.

PURPLE FRINGE OR SMOKE TREE (Cotinus).

—From the south of Europe. A much admired shrub for its curious fringe or hair-like flowers that cover the whole surface of the plant in midsummer. Height 10 to 12 feet and spreads

so as to require considerable space.

WHITE FRINGE (Chionanthus virginica).

An ornamental shrub with dark green foliage and very showy white flowers in early summer.

QUINCE.

Japan (*Cydonia japonica*)—Completely covered with dazzling, scarlet flowers very early in spring. Deep green and glossy leaves. Bushy but tall growing. Armed with fierce thorns and stands severe shearing, making it an excellent defensive hedge.

Russian Olive (*Eleagnus*)—Called by some the European Candle tree. Foliage a rich silver color, willow shape; flowers deep golden and very fragrant, hardy. This is a beautiful silver shaded tree, attaining a height of 20 to 30 feet under the right conditions. Blooms in July.

Silver Thorn (*Eleagnus Longipes*)—Showy shrub of strong, bushy growth. Leaves have silver variegation in lining, which are dark green above. Fragrant, creamy blossoms in April or May.

SNOWBALL (Viburnum).

Common (*Viburnum opulus sterilis*)—Very showy, especially when covered with its great clusters of white flowers.

Japan (*Viburnum tomentosum plicatum*)—Handsome, plicate leaves and delicately formed pure white flowers in clusters four inches across in May and June; red fruit. Bush or tree form.

SNOWBERRY.

Snowberry (*Symphoricarpos*)—Highly valuable for shady places. Noted for the striking beauty of their persistent fruits. The red variety is commonly called Coral Berry or Indian Currant.

SPIREA.

Anthony Waterer (*Spirea bumalda* Anthony Waterer)—A new form of better habit than the type, with larger corymbs of rosy crimson flowers.

Bridal Wreath (*Spirea prunifolia* fl. pl.)—Among the earliest of the double spireas to bloom, very graceful and plume-like in effect, branches being covered thickly almost their whole length with small, double white flowers, and sweeping outward in gentle curves.

Bumalda—A bushy plant with an abundance of flat clusters of rose colored flowers. Blooms June to August. Desirable as an edging for shrubberies.

Caliosa—A good dwarf shrub. Pinkish white flowers in June. Valuable for foundation planting or in front of shrub border.

Golden, or Golden Ninebark (*Spirea opulifolia aurea*)—A tall-growing shrub. The leaves are bright yellow in spring, gradually changing to golden brown in fall. Flowers double white.

Reeve's (*Spirea cantonensis* fl. pl. or *reevesiana*)—Tall and graceful, with dark, bluish-green lance-like foliage, and large, pure white, double flowers in May and June.

Thunberg's Snow Garland (*Spirea thunbergi*)—Distinct and most attractive at all seasons, with feathery masses of pure white flowers in early spring; in autumn its narrow leaves change to bright red and orange. Forms a dense, feathery bush.

Van Houtte's (*Spirea van houttei*)—One of the most charming and beautiful of the *Spireas*, having pure white flowers in clusters or panicles about an inch in diameter. Astonishingly profuse in bloom and plants remarkably vigorous and hardy. A grand shrub for planting singly or in groups or as a banking against buildings. Makes one of the best shrub hedges.

STEPHANANDRA.

Stephanandra Flexuosa—A thick shrub with graceful branches, small foliage that is almost as delicate as a fern and turns bronze red in late summer and autumn. In June, small, inconspicuous, fragrant white flowers line the branches.

SUMACH (Rhus).

Aromatica (Fragrant Sumach)—A native variety, exhaling a strong odor. Flowers greenish white; leaves lobed.

Copallina (Dwarf Sumach)—Shining Sumach. Beautiful shining green foliage, changing to rich crimson in August. Greenish yellow flowers in August.

Glabra (Smooth Sumach)—Very effective in autumn with its crimson seeds and foliage.

Var. Laciniata (Cut-leaved Sumach)—A very striking plant, of moderate size, with deeply cut leaves, resembling fern leaves; dark green above and glaucous below, and turning to a rich red in autumn.

Typhina (Staghorn Sumach)—A large shrub or tree, brilliant foliage and scarlet fruit in autumn.

Var. Laciniata (Cut-leaved Staghorn Sumach)—A picturesque form, with handsome leaves and deeply cut leaflets.

SYRINGA OR MOCK ORANGE (Philadelphus).

Common Garland (*P. coronarius*)—Blooms among the earliest and in

graceful sprays. Its large, showy flowers are delightfully scented.

Golden (*P. coronarius aureus*)—A striking shrub of medium size with golden yellow leaves that remain bright throughout the season.

TAMARISK (Tamarix).

African or Early-flowering (*T. parviflora*)—Bright pink flowers in slender racemes during April and May. Reddish bark.

French (*T. gallica*)—Delicate pink or white flowers in spring or early summer. Leaves bluish green.

VIBURNUM.

The *Viburnums* are our most useful shrubs, being hardy, of good habit, bearing handsome flowers in summer, followed with showy fruit.

Cassinoides—Cymes of white flowers in June. Black berries in autumn. Handsome foliage.

Dentatum (Dentatid-leaved)—Flowers greenish white. One of the best shrubs for massing for foliage effect.

Lantana (Early White *Viburnum*)—Sometimes called *Wayfaring Tree*. A large, robust shrub with soft, heavy leaves and large clusters of white flowers in May, succeeded by red fruit. Retains its foliage very late.

Lentago (Sheepberry)—Flowers creamy white, very fragrant; foliage a light, glossy green.

Opulus (High Bush Cranberry)—Both ornamental and useful. Its red berries, resembling cranberries and esteemed by many, hang until destroyed by the frost late in the fall.

WEIGELIA (Diervilla).

Eva Rathke (*D. hybrida Eva Rathke*)—New; bright crimson flowers, blooms all summer; perfectly hardy.

Rose-colored (*D. florida amabilis*)—The most popular variety.

Variiegated (*D. kosteriana variegata*)—Leaves bordered with yellow.

WITCH HAZEL (*Hamamelis virginiana*)—Yellow, fringe-like flowers, often as late as November, after the leaves have fallen. Leaves turn to yellow, orange or purple in fall. Grows well in shady places.

WILLOW, *Rosemary* (*Salix rosmarini-folia*)—A pretty dwarf, very airy in effect, because of its feathery branches and small silvery leaves.



SILVER MAPLES AND CATALPA BUNGI.

Silver Maple is the king of all fast-growing shade trees. This picture shows a row of as fine shaped trees as ever were grown. Persons desiring the best in the shade tree line will order Silver Maple. Just beyond the row of maple trees may be seen some specimens of Catalpa Bungi or Chinese Umbrella tree. This tree is one of the very finest of ornamental trees. Buy Catalpa Bungi for ornamental purposes.

CLIMBING VINES

Akebia (*A. quinata*)—Unique foliage, never attacked by insects. Fragrant, chocolate purple flowers in large clusters.

Bittersweet (*Celastrus scandens*)— Handsome, glossy foliage and large clusters of beautiful orange-crimson fruit which are retained all winter.

Cinnamon Vine (*Dioscorea divaricata*)—Small, white flowers with a cinnamon odor. Leaves are dark, glossy and arrow shaped.

Clematis, in Variety—They are unexcelled for either shade or decoration. Large flowered kinds are red, blue, purple or white. The small flowered sort, *Clematis paniculata*, a Japanese variety, has white flowers and is very fragrant.

Dutchman's Pipe (*Aristolochia siphon*)—A hardy, rapid grower with very large heart-shaped leaves and brownish pipe-shaped flowers.

HONEYSUCKLE.

Hall's Japan (*Lonicera japonica*)—Very

fragrant flowers of pure white or creamy yellow. Almost evergreen.

IVY.

American, or Virginia Creeper (*Ampelopsis quinquefolia*)—Five-parted leaves which turn to rich scarlet in fall. Blue-black berries. Quick growing and hardy.

English (*Hedra helix*)—Leaves are rich green and make a beautiful covering for any wall or support.

Japan or Boston (*Ampelopsis veitchii*)—Foliage, a fresh deep green which turns to bright shades of crimson and yellow in fall. Makes an excellent covering and will cling to the smoothest surface.

Trumpet Creeper (*Bignonia radicans*)—A robust, woody vine with orange-scarlet flower clusters and light green leaves.

Wisteria—Flowers in dense, drooping racemes of a delicate lavender or purple color.

ROSES

BABY ROSES

Clothilde Scupert. Salmon pink.
 Erna Teschendorff. Red.
 Jessie. Crimson.
 Katherine Zeimet (White Baby).
 Mad. Norb. Levavasseur (Baby Ram-
 bler). Pink.

BRIER ROSES

(Rosa Lutea or Pernetiana.)
 Harrison's Yellow.
 Juliet. Yellow to deep rose.
 Persian Yellow.
 Soleil D'Or. Reddish gold.

CLIMBING ROSES

(Rosa Rambler and Rosa Wichuraiana.)
 Perfectly hardy, and strong growers,
 of luxuriant foliage and immense clus-
 ters of beautiful flowers.
 Baltimore Belle. Yellowish white.
 Crimson Rambler.
 Dorothy Perkins (Pink Rambler).
 Dr. W. Van Fleet—Double flowers; flesh
 pink shading to rosy pink in center.
 Very fragrant.
 Flower of Fairfield (Ever-blooming
 Crimson Rambler).
 Queen of the Prairies. Lively pink.
 Seven Sisters. Pink.
 Tausendschoen. Pink and white.
 Veilchenblau. Pink to blue.
 Wichuraiana (Memorial). Red and white.

JAPAN WRINKLED ROSES

(Rosa Rugosa, Rosa Microphylla.)
 Rugosa alba. White.
 Rugosa. Pink.
 Rugosa rubra. Red.

MOSS ROSES

(Rosa Muscosa.)

Its fine, mossy buds, large, fragrant
 flowers and perfect hardiness make this
 class a universal favorite.
 Common Moss. Pale rose.
 Crested. Pink.
 Henry Martin. Pink.
 Luxembourg. Red.
 Perpetual White, Pink, Red.
 Salet. Light rose.

HYBRID PERPETUALS

(Rosa Hybrida Bifera.)

Perfectly hardy.

Alf. Colomb. Red.
 American Beauty. Deep rose.
 Anna de Diesbach. Carmine-pink.
 Baron de Bonstettin. Crimson.
 Baroness Rothschild. Light pink.

Black Prince. Crimson.
 Clio. Pink.
 Coquette des Alpes. White.
 Coquette des Blanches. White.
 Cream Beauty. Pink-white.
 Duke of Edinburgh. Crimson.
 Duke of Wellington. Red.
 Earl of Dufferin. Crimson.
 Eugene Fuerst. Crimson.
 Fisher Holmes. Crimson.
 Frau Karl Druschki (Snow Queen).
 White.
 Gen. Jacqueminot. Crimson.
 John Hopper. Dark rose.
 Jules Margottin. Cherry red.
 Louis Van Houtte. Crimson.
 Mabel Morrison. White.
 Mad. Gabriel Luizette. Silvery pink.
 Mad. Plantier. White.
 Magna Charta. Rose-pink.
 Margaret Dickson. White.
 M. P. Wilder. Carmine.
 Mrs. J. H. Laing. Pink.
 Paul Neyron. Deep rose.
 Pierre Notting. Deep crimson.
 Prince Camille de Rohan. Crimson-
 maroon.
 Sir Roland Hill. Dark red.
 Ulrich Brunner Fils. Cherry red.
 White Baroness. White.

HYBRID TEAS

(Rosa Indica Fragens Hybrida.)

A class of half-hardy roses; constant
 bloomers and unsurpassed in size, beauty
 and fragrance of flowers.
 Admiral Dewey. Silver white.
 Chateau de Clos Vougeot. Scarlet.
 Countess of Gosford. Pink.
 Dean Hole. Carmine.
 Etoile de France. Crimson.
 Farbenkoenigin. Silver red.
 General McArthur. Crimson.
 Gloire de Dijon. Fawn and yellow.
 Gloire de Lyonnaise. Pale yellow.
 Gruss an Teplitz. Crimson.
 Hermosa. Pink.
 J. B. Clark. Scarlet.
 Jonkheer J. L. Mock. Silver red.
 Juliet. Old gold and rose.
 Kaiserin Augusta Victoria. Creamy
 white.
 Killarney. Pink and white.
 La Detroit. Pink.
 La France. Pink.
 Lady Ashton. Pale Rose
 Lady Hillingdon. Yellow.
 Le Progress. Yellow
 Lyon. Reddish-gold.
 Mad. Abel Chatenay. Carmine pink.
 Mad. Caroline Testout. Pink.

PAUL
NEYRON



CREAM
BEAUTY

GEN. JACQUEMINOT

Mad. Jules Grolez. Silver Rose.
 Mad. Leon Paine. Silver-salmon.
 Mad. Pernet-Ducher. Yellow.
 Mad. Ravary. Golden yellow.
 My Maryland. Pink.
 Nathalie Boettner. White.
 Pharisær. Rose-white.
 Prince de Bulgaria. Pink to golden-yellow.
 Richmond. Red.
TEA ROSES (*Rosa Indica Fragrans*).
 Not hardy, best for indoor culture.
 Large flowers of delicate tints and with powerful fragrance.
 Bon Silene. Pink.

Catherine Mermet. Light rose.
 Earl of Warwick. Salmon pink.
 Etoile de Lyon. Lemon yellow.
 Golden Gate. Golden yellow and cream white.
 Golden Sun. Golden yellow and cream white.
 Maman Cochet. Pink-salmon yellow.
 Marie Van Houtte. Yellowish pink and white.
 Papa Gontier. Crimson.
 Perle des Jardines. Yellow.
 Safrano. Yellow.
 Sunset. Yellow.
 The Bride. White.

BULBS

AND WHEN TO PLANT THEM

Canna—Dwarf or tall; various shades of pink, red and yellow; spring.
 Crocus—Blue, striped, white and yellow; fall.
 Dahlia—Red, pink, white, yellow, purple and variegated; spring.
 Gladiolus—Standard assortment of colors; spring.
 Elephant Ear (*Caladium*)—spring.
 Hyacinth—Standard assortment of colors; fall.
 Jonquil (*Narcissus jonquilla*)—Single and double; fall.
 Lily, Easter—White; fall.
 Gold banded—fall.
 Tiger—Orange-scarlet with dark spots; fall.
 Narcissus or Daffodil—Fall.
 Snowdrops—Single and double; white; fall.

Tuberose—Single and double; spring.
 Tulips—Single and double; various shades of white, red, pink and yellow; fall.

ORNAMENTAL GRASSES

Eulalia, Jap. (*Miscanthus* (Eul.) japonica).
 Eulalia, Narrow-leaved (*M sinensis*) (*E. gracillima un Wittata*).
 Eulalia, Striped (*M. jap. variegata*).
 Pampas Grass (*Gynerium argenteum*).
 Plume Grass (Hardy Pampas) — (*Erianthus ravennae*).
 Ribbon Grass (*Phalaris arundinacea variegata*).
 Spike Grass (*Uniola latifolia*).
 Zebra Grass (*Mis. jap. zebrinus*).

Approved by the Highest Authority.

Am glad to know that you are making a pedigree selection of the older varieties of fruit trees. I think that it is an important move. Your improved Beer's Smock will probably be a valuable late peach, as the old one is an especially good one here for productiveness and lateness.

LUTHER BURBANK.

1,000 Peach, 500 Pear Trees; Best Growth; Finest Stock.

The 1,000 peach trees and 500 pear that I purchased from your agent, Mr. H. E. Brundage, the past two years, were the best and finest trees that I have ever set, and they have made the best growth of any nursery stock that we have planted in the past twenty years, regardless of the dry season we had in 1908.

H. B. TODD, Vermillion, O.

Finest Trees in the Country.

The peach trees bought of you three years ago are now the finest in the country.

WM. SEARS, Beulah, Mich.

I am delighted with my trees.—John A. Ferguson, Orleans, Ind.

HARDY PERENNIALS

- Adam's Needle** (*Yucca filamentosa*)—Creamy white, an evergreen.
- Aster, Stokes'** (*Stokesia cyanea*)—Lavender blue; July-October.
- Baby's Breath** (*Gypsophila paniculata*)—Pink and white.
- Bellflower, Chinese** (*Platycodon grandiflora*)—Blue or white; July-September.
- Blanket Flower** (*Gaillardia grandiflora*)—Red, yellow; June.
- Bleeding Heart** (*Dicentra spectabilis*)—Early spring.
- Canterbury Bells** (*Campanula medium calycanthera*)—Blue, rose and white.
- Chrysanthemum, Hardy Pompon**—Gold, pink, purple, white and yellow.
- Chrysanthemum, Shasta Daisy** (*Ch. arctica hybridum*)—White with golden center.
- Columbines, in variety** (*Aquilegia*)—Blue, white, red and yellow; early spring.
- Cone Flower, Purple** (*Brauneria purpurea*).
- Crimson Eye** (*Hibiscus oculiroseus*)—White with crimson center.
- Daisy, Persian** (*Pyrethrum hybridum*).
- Day-Lily, Narrow-leaved** (*Funkia lancifolia*).
- Day-Lily, Tawny** (*Hemerocallis fulva*).
- Day-Lily, White** (*F. sub-cordata*).
- Desmodium** (*Lespedeza sieboldi*)—Purple.
- Fox Glove** (*Digitalis*)—Pink, white; July and August.
- Gas Plant** (*Dictamnus fraxinella*)—Red, white.
- Gay Feather (Blazing Star)** (*Liatris spicata*).
- Gold Tuft** (*Alyssum saxatile compactum*)
- Golden Glow** (*Rudbeckia laciniata*)—Golden; early summer till frost.
- Hollyhock**—Crimson, white, pink, yellow.
- Iris, German** (*I. germanica*)—Blue, lavender, pink, purple, red, variegated, white and yellow.
- Iris, Japan** (*I. laevigata*)—Same colors as the German variety.
- Larkspur, Chin. blue** (*Delphinium grandiflorum*).
- Lily-of-the-Valley** (*Convallaria majallis*).
- Maltese Cross** (*Lychnis chalconica*)—Vermilion.
- Michaelmas Daisy** (*Aster*)—All shades of blue, purple and white; all fall.
- Peony** (*Paeonia*)—Pink, pink with cream center, red, dark red, yellow, white, white tinted pink cut-leaved.
- Peony Tree**—All colors, very large flowers.
- The following assortment of imported peonies is the choicest that has ever been offered:
- Charles Magne.**
- Couronne d'Or**—Creamy white; very late.
- Delacheii**—Dark claret purple.
- Festiva Alba**—White, large, very fine.
- Festiva Maxima**—Very large, very double and full. The guard petals are a faint pink when opening, fading later to white; the center is tinted cream and prominently flecked with carmine. Season early to comparatively late.
- Grandiflora Rosea**—Light rose.
- La Sublime.**
- Louis Van Houtte**—Bright violet red; late.
- Mad. Lebon**—Cherry rose; late.
- Nobillissima**—Bright dark rose.
- Palmata**—Cut-leaved.
- Princess Imperial**—Scarlet; large, late.
- Rosa Superba**—Pink.
- Phlox** (*Ph. paniculata*)—Blue, crimson, pink, red, variegated, white.
- Phlox, Spreading** (*Ph. sublata*)—Pink and white.
- Poppy Iceland** (*Papaver nudicaule*)—White, yellow, orange.
- Poppy, Oriental** (*P. orientale*)—Orange-scarlet.
- Poppy, Plume** (*Bocconia cordata*)—White.
- Red-hot Poker** (*Tritoma pfitzeri*)—Orange red.
- Stoncrop, Brilliant** (*Sedum spectabile*)—Light rose.
- Sweet William** (*Dianthus barbatus*)—Lavender, pink, white.
- The Pearl** (*Achillea ptarmica fl. pl.*)—White.
- Windflower, Jap.** (*Anemone japonica*)—White, yellow or pink; August to November.

I am pleased with my trees; they are fine.—C. P. Given, New Concord, Mich.

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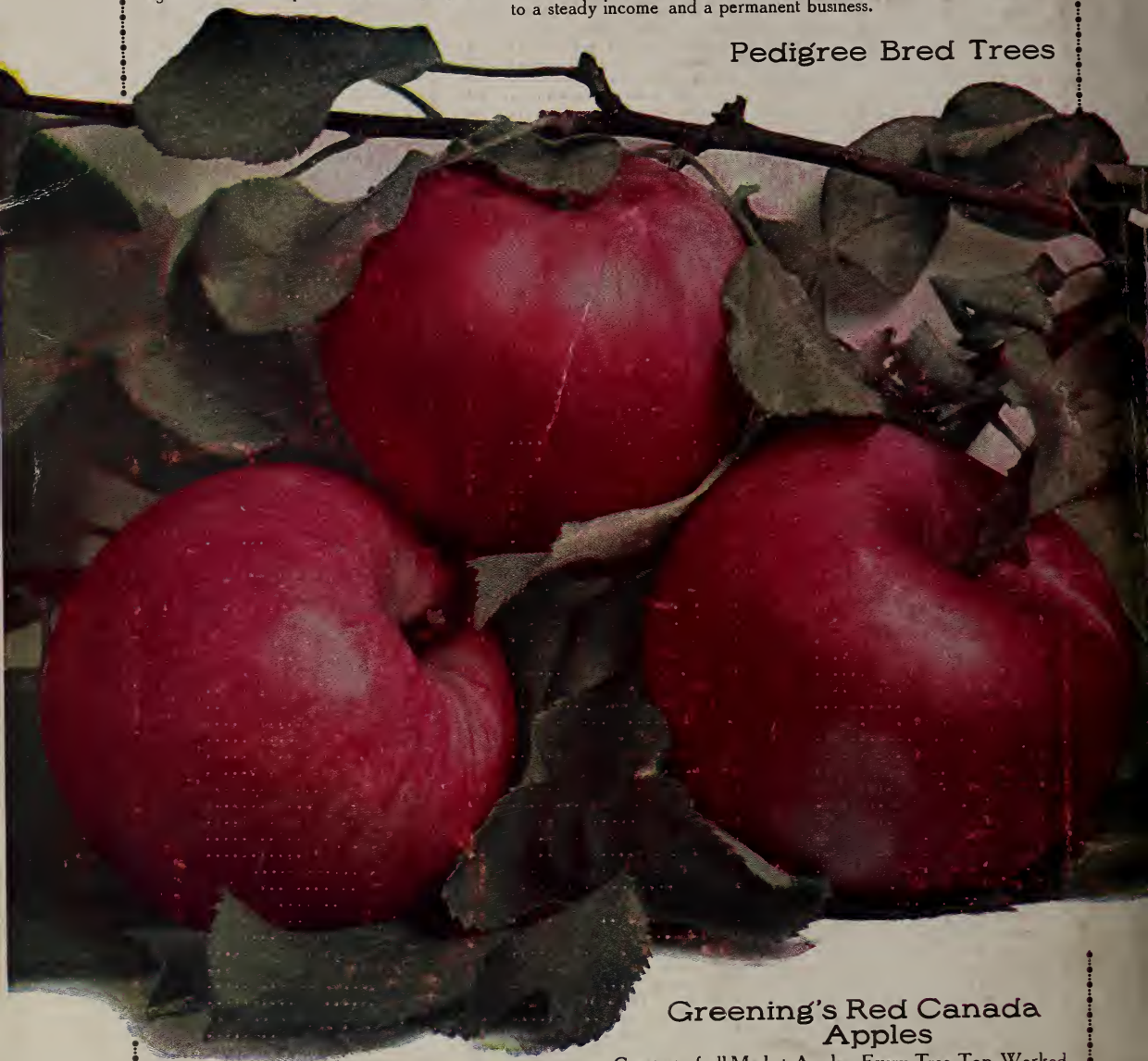
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